

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 16 C 10484
)	
CITGO PETROLEUM CORPORATION and)	Judge Alonzo
PDV MIDWEST REFINING, LLC,)	
)	
Defendants,)	
)	

CONSENT DECREE

TABLE OF CONTENTS

I. Jurisdiction and Venue	4
II. Applicability and Binding Effect	5
III. Objectives	7
IV. Definitions	7
V. Compliance Requirements	13
A. NOx Emissions Reductions from Heaters and Boilers.....	13
B. PM Emissions Reductions from Heaters	18
C. PM Emissions Reductions from FCCU	19
D. Sulfur Pit Emissions, Operation, and Maintenance.....	25
E. CEMS Operation and Maintenance Plan and PEMS Monitoring Protocol; CEMS and PEMS Downtime Root Cause Analyses and Corrective Actions	27
F. Emissions Controls for Vacuum Trucks	36
G. Flaring Emission Reductions and Controls	36
H. Leak Detection and Repair	37
I. Benzene Waste Operations NESHAP	38
J. Incorporation of Consent Decree Requirements into Federally Enforceable Permits.....	41
VI. Emission Credit Generation.....	43
VII. Supplemental Environmental Projects	44
VIII. Environmental Mitigation	47
IX. Reporting and Recordkeeping	49
X. Civil Penalty.....	53
XI. Stipulated Penalties.....	54

Stipulated Penalty Table 1	54
Stipulated Penalty Table 2.....	59
Stipulated Penalty Table 3.....	63
XII. Force Majeure.....	70
XIII. Dispute Resolution	72
A. For All Disputes Except Those Arising Under Subparagraph A20.c of	
Appendix A	72
B. For Disputes Arising Under Subparagraph A20.c of Appendix A.....	75
XIV. Information Collection and Retention	75
XV. Effect of Settlement/Reservation of Rights.....	77
XVI. Costs.....	85
XVII. Notices	85
XVIII. Effective Date.....	88
XIX. Retention of Jurisdiction	88
XX. Modification.....	88
XXI. Termination.....	89
XXII. Public Participation	90
XXIII. Signatories/Service.....	91
XXIV. Integration.....	91
XXV. Final Judgment	92

APPENDICES

The following Appendices are attached to and part of this Consent Decree:

Appendix A: Emission Reductions from Flares and Control of Flaring Events

Flaring Appendices Table 1

NUMBER	ABBREVIATION	DESCRIPTION
A1.1	S-Drwgs	Drawings Illustrating Lower, Center, and Upper Steam Injection in Various Types of Flare Tips
A1.2	Gen-Eq	Intentionally Left Blank
A1.3	NHV _{cz}	Calculating NHV _{cz} for Steam-Assisted Flares
A1.4	N/A	Intentionally Left Blank
A1.5	N/A	Intentionally Left Blank
A1.6	N/A	Intentionally Left Blank
A1.7	G-Drwg	Depiction of Gases Associated with Steam-Assisted Flares
A1.8	Flr-Data-Rpt	Outline of Requirements for the Flare Data and Initial Monitoring Systems Report
A1.9	N/A	Intentionally Left Blank
A1.10	N/A	Intentionally Left Blank
A1.11	WG-Map	Waste Gas Mapping: Level of Detail Needed to Show Main Headers and Process Unit Headers
A1.12	N/A	Intentionally Left Blank
A1.13	Stips-Calc	Calculating the Amount of Stipulated Penalties Due for Violating Limitations on Flaring when the Stipulated Penalties are Based on Excess VOC and SO ₂ Emitted
A1.14	Nlsn-Cmplxty	Equations and Methodology to Calculate Refinery-Specific Complexity and Industry-Average Complexity using Nelson Complexity Index

Flaring Appendices Table 2

NUMBER	ABBREVIATION	DESCRIPTION
A2.1	CITGO-Cmplnc-Sch	Covered Flares and Applicability Dates for Certain Consent Decree Requirements
A2.2	FLR-Limit-Calc	Methodology for Calculating Refinery Flaring Limitation (including CITGO's Form EIA-820 for Report Year 2014)
A2.3	C4 Flare-Emissions	Methodology for Calculating the 365-day Rolling Sum Emissions of Volatile Organic Compounds from the C4 (Coker) Flare
A2.4	C5 Flare-Emissions	Methodology for Calculating the 365-day Rolling Sum Emissions of Volatile Organic Compounds from the C5 (Alky) Flare

Appendix B: Enhanced LDAR Program

Appendix C: Fence Line Monitoring System Supplemental Environmental Project

Appendix D: Green Lighting Supplemental Environmental Project

Appendix E: Parametric Emissions Monitoring Systems for 123B-2 Heater

Appendix F: February 26, 2009 and September 30, 2011 Notices of Violation and Findings of Violation

CONSENT DECREE

WHEREAS Plaintiff the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), has filed a complaint (“Complaint”) against Defendants CITGO Petroleum Corporation and PDV Midwest Refining, LLC (collectively “CITGO” or “Defendants”), concurrently with the lodging of this Consent Decree, for alleged environmental violations at CITGO’s petroleum refinery located in Lemont, Illinois (“Refinery” or “Lemont Refinery”);

WHEREAS the United States, the State of Illinois, and CITGO are among the parties to a Consent Decree entered by the United States District Court for the Southern District of Texas in Civ. No. 4:04-cv-3883 on January 27, 2005 (the “2005 Consent Decree”), which covers six refineries, that at the time, all were owned and operated by CITGO, including the Lemont Refinery;

WHEREAS, on February 26, 2009, and on September 30, 2011, EPA issued Notices and Findings of Violation to CITGO asserting the Lemont Refinery’s non-compliance with various requirements of the following: (i) the 2005 Consent Decree; (ii) the Clean Air Act (“CAA”), 42 U.S.C. § 7401 *et seq.*, and corresponding federal regulations; (iii) the federally enforceable Illinois State Implementation Plan (“Illinois SIP”) provisions that incorporate, adopt, and/or implement federal requirements; and (iv) Lemont Refinery construction and Title V permits;

WHEREAS CITGO denies that it has violated and/or continues to violate the 2005 Consent Decree or any statutory, regulatory, or permit requirements, and maintains that it has been and remains in compliance with the 2005 Consent Decree and all applicable statutes, regulations, and permits and is not liable for civil penalties and injunctive relief as alleged in the Complaint or for stipulated penalties under the 2005 Consent Decree;

WHEREAS, pursuant to Paragraph 276 of the 2005 Consent Decree, CITGO complied with and completed the 2005 Consent Decree with respect to Lemont Refinery obligations except for certain limited obligations that were not yet completed but are being incorporated herein;

WHEREAS EPA reviewed extensive information and data submitted by CITGO regarding its compliance with the Lemont Refinery obligations in the 2005 Consent Decree and determined that, except for the limited obligations that are incorporated herein, CITGO has satisfactorily completed the requirements for termination set forth in Paragraph 274 of the 2005 Consent Decree;

WHEREAS, because this Consent Decree incorporates all remaining obligations of the 2005 Consent Decree that pertain to the Lemont Refinery (in addition to a resolution of the matters alleged in the Complaint), the United States, Illinois, and CITGO have lodged on this day in the Southern District of Texas a First Amendment to the 2005 Consent Decree that will terminate all obligations of the 2005 Consent Decree that apply to the Lemont Refinery and will otherwise amend the 2005 Consent Decree as needed to reflect the termination of the provisions applicable to the Lemont Refinery;

WHEREAS, pursuant to the First Amendment of the 2005 Consent Decree filed in the Southern District of Texas, CITGO will pay \$323,500 in stipulated penalties for past violations of certain Lemont Refinery obligations of which \$161,750 will be paid to the United States and \$161,750 will be paid to Illinois;

WHEREAS, under this Consent Decree, CITGO will pay a civil penalty of \$1,955,000 to the United States for resolution of alleged violations of the Clean Air Act at the Lemont Refinery set forth in the Complaint and in the February 26, 2009 and September 30, 2011 Notices and

Findings of Violation, as well as perform two Supplemental Environmental Projects at a cost of no less than \$1 million and a mitigation project at an estimated cost of \$1.14 million;

WHEREAS CITGO has indicated that it remains committed to proactively addressing environmental issues relating to its operations;

WHEREAS CITGO estimates that, including expenditures it already has made, it will spend a total of approximately \$42 million to comply with the injunctive relief requirements of this Consent Decree;

WHEREAS the United States anticipates that the affirmative relief in Section V of this Consent Decree (Compliance Requirements) will reduce emissions of the following pollutants by the following amounts, in tons per year (“tpy”):

Nitrogen Oxides (“NO _x ”)	90
Sulfur Dioxide (“SO ₂ ”)	170
Volatile Organic Compounds (“VOCs”)	170
Particulate Matter (“PM”)	40
Carbon Dioxide Equivalents (“CO ₂ e”)	10,850

The United States also anticipates reductions of carbon monoxide and hazardous air pollutants (“HAPs”);

WHEREAS discussions between the United States and CITGO (“the Parties”) have resulted in the settlement embodied in the Consent Decree;

WHEREAS CITGO has waived any applicable federal or state requirements of statutory notice of the alleged violations;

WHEREAS the Parties recognize, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties at arms length and in good faith and will avoid litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I, and with the consent of the Parties, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345, and 1355; Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477; and over the Parties. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b); and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because CITGO is located in this judicial district and the violations alleged in the Complaint are alleged to have occurred in this judicial district. For purposes of this Decree, or any action to enforce this Decree, CITGO consents to this Court's jurisdiction over this Decree, over any action to enforce this Decree, and over CITGO. CITGO also consents to venue in this judicial district.

2. For purposes of this Consent Decree, CITGO does not contest that the Complaint states claims upon which relief may be granted.

3. The State of Illinois has actual notice of the commencement of this action in accordance with the requirements of CAA Sections 113(a)(1) and 113(b)(3), 42 U.S.C. §§ 7413(a)(1) and 7413(b)(3).

II. APPLICABILITY AND BINDING EFFECT

4. The obligations of this Consent Decree apply to and are binding upon the United States and upon CITGO and any successors, assigns, and other entities or persons otherwise bound by law. The obligations of this Consent Decree relating to CITGO apply at the Lemont Refinery and no other refinery owned or operated by CITGO.

5. Effective from the Date of Lodging of this Consent Decree, CITGO shall give written notice, and shall provide a copy of, this Consent Decree to any successors in interest at least sixty days prior to the transfer of ownership or operation of any portion of the Lemont Refinery. CITGO shall notify the United States in accordance with the notice provisions set forth in Section XVII (Notices), of any successor in interest at least thirty days prior to any such transfer.

6. If CITGO intends to request that the United States agree to a transferee's assumption of any obligations of the Consent Decree, CITGO shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest in (exclusive of any non-controlling, non-operational shareholder interest) the Lemont Refinery upon the transferee's written agreement to execute a modification to the Consent Decree that shall make the terms and conditions of the Consent Decree applicable to the transferee.

7. As soon as possible prior to the transfer: (i) CITGO shall notify the United States of the proposed transfer and of the specific Consent Decree provisions that CITGO proposes the transferee assume; (ii) CITGO shall certify that the transferee is contractually bound to assume the obligations and liabilities of this Consent Decree; and (iii) the transferee shall submit to the United States a certification that the transferee has the financial and technical ability to assume

the obligations and liabilities of this Consent Decree and a certification that the transferee is contractually bound to assume the obligations and liabilities of this Consent Decree.

8. After the submission to the United States of the notice and certification required by the previous Paragraph, either: (i) the United States shall notify CITGO that the United States does not agree to modify the Consent Decree to make the transferee responsible for complying with the terms and conditions of the Consent Decree; or (ii) the United States, CITGO, and the transferee shall file with the Court a joint motion requesting the Court approve a modification substituting the transferee for CITGO as the Defendant responsible for complying with the terms and conditions of the Consent Decree.

9. If CITGO does not secure the agreement of the United States to a joint motion within a reasonable period of time, then CITGO and the transferee may file, without the agreement of the United States, a motion requesting the Court to approve a modification substituting the transferee for CITGO as the Defendant responsible for complying with some or all of the terms and conditions of the Consent Decree. The United States may file an opposition to the motion.

10. Except as provided in Paragraphs 5–9 and Section XII (Force Majeure), CITGO shall be solely responsible for ensuring that performance of the work required under this Consent Decree is undertaken in accordance with the deadlines and requirements contained in this Consent Decree (including Appendices). CITGO shall provide an electronic or hard copy of this Consent Decree to its officers, the Lemont Refinery plant manager, the Lemont Refinery Manager of Health, Safety, Security, and Environmental Protection, and all personnel in the Lemont Refinery Environmental Department. In addition, CITGO shall ensure that its employees, agents, and contractors whose duties might reasonably include compliance with any

provision of this Decree are made aware of this Consent Decree and aware of the specific requirements of this Consent Decree that fall within such person's duties. CITGO shall place an electronic version of the Consent Decree on its internal environmental website. CITGO shall condition any contract for work required under this Consent Decree upon performance of the work in conformity with the terms of this Consent Decree. Copies of the applicable portions of this Consent Decree do not need to be supplied to firms who are retained solely to supply materials or equipment to satisfy requirements of this Consent Decree.

11. In any action to enforce this Consent Decree, CITGO shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. OBJECTIVES

12. It is the purpose of the Parties to this Consent Decree to further the objectives of the Clean Air Act, the Illinois SIP promulgated pursuant to Section 110 of the Clean Air Act, 42 U.S.C. § 7410, and the rules and regulations promulgated under the Clean Air Act.

IV. DEFINITIONS

13. Unless otherwise defined herein, terms used in this Consent Decree shall have the meaning given to those terms in the Clean Air Act and the implementing regulations promulgated thereunder. The following terms used in this Consent Decree shall be defined for purposes of this Consent Decree and the reports and documents submitted pursuant thereto as follows:

a. "2005 Consent Decree" shall mean the civil consent decree entered in *United States, et al. v. CITGO Petroleum Corporation, et al.*, Civil No. 4:04-cv-3883 (S.D. Texas) on January 27, 2005.

b. “30-day rolling average” shall mean the average daily emission rate or concentration during the preceding 30 days. For purposes of clarity, the first day used in a 30-day rolling average compliance period is the first day on which the emission limit is effective, and the first complete 30-day average compliance period is 30 days later (*e.g.*, for a limit effective on January 1, the first day in the period is January 1 and the first complete 30-day period is January 1 through January 30).

c. “365-day rolling average” shall mean the average daily emission rate or concentration during the preceding 365 days. For purposes of clarity, the first day used in a 365-day rolling average compliance period is the first day on which the emission limit is effective, and the first complete 365-day average compliance period is 365 days later (*e.g.*, for a limit effective on January 1, the first day in the period is January 1 and the first complete 365-day period is January 1 through December 31).

d. “Calendar Quarter” shall mean any one of the three month periods ending on March 31st, June 30th, September 30th, and December 31st.

e. “CEMS” or “Continuous Emissions Monitoring System” shall mean, consistent with the definition of “Continuous Monitoring System” in 40 C.F.R. § 60.2, the total equipment, required under this Consent Decree or an applicable regulation or permit, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

f. “CEMS Downtime Root Cause Analysis” shall mean an assessment conducted through a process of investigation to determine the primary cause and any contributing cause(s) of CEMS downtime.

g. “CITGO” shall mean CITGO Petroleum Corporation and PDV Midwest Refining, L.L.C., and their successors and assigns.

h. “CO” shall mean carbon monoxide.

i. “Consent Decree” or “Decree” shall mean this Consent Decree, including any and all appendices attached to this Consent Decree, and any amendments thereto.

j. “Date of Entry” or “DOE” shall mean the Effective Date of this Consent Decree.

k. “Date of Lodging” shall mean the date this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Northern District of Illinois.

l. “Day” or “day” (that is, without an initial capitalization) shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree for the submission of material(s), where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall run until the close of business of the next business day. In computing any period of time under this Consent Decree for the payment of a penalty, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next federal business day.

m. “Effective Date” shall have the definition set forth in Section XVIII (Effective Date) of this Consent Decree.

n. “EPA” or “U.S. EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.

o. “Existing CEMS” shall mean the following CEMS which exist at the Lemont Refinery as of the Date of Lodging:

Source	Constituents
FCCU	CO O ₂ H ₂ O NO _x SO ₂
119A-train of SRP 119B-train of SRP	SO ₂ O ₂
121C-train of SRP 121D-train of SRP	SO ₂ O ₂
111B-1A Heater	NO _x CO O ₂
111B-1B Heater	NO _x CO O ₂
111B-2 Heater	NO _x CO O ₂
430B-1 Aux Boiler	NO _x CO O ₂
844 C-1 Flare	Total Sulfur
844 C-2 Flare	Total Sulfur
844 C-3 Flare	Total Sulfur
109B-62 Heater	NO _x CO O ₂
590 H-1 Heater 590 H-2 Heater	O ₂
SP FG 114-116 FG (Dual Service A) 115-125 FG (Dual Service A) NC FG (Dual Service B) PSA Gas (Dual Service B) 118-122 FG System 123 FG (Dual Service C) NP Bir FG (Dual Service C)	H ₂ S

To the extent that, after the Date of Lodging of this Consent Decree, it is determined that additional CEMS existed as of the Date of Lodging but were not set forth on this list, then those additional CEMS shall be included in the definition of “Existing CEMS” for purposes of this Consent Decree.

p. “FCCU” shall mean the fluidized catalytic cracking unit, its regenerator, and its associated CO boiler that CITGO owns and/or operates at the Lemont Refinery.

q. “Fuel Oil” shall mean any liquid fossil fuel with sulfur content of greater than 0.05% by weight.

r. “Illinois” shall mean the State of Illinois, on behalf of the Illinois Environmental Protection Agency.

s. “Illinois EPA” shall mean the Illinois Environmental Protection Agency and any of its successor departments or agencies.

t. “Malfunction” shall mean, as specified in 40 C.F.R. Part 60.2, “any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.”

u. “MMBtu” shall mean million British thermal units.

v. “Natural Gas Curtailment” shall mean a restriction imposed by a natural gas supplier, which limits CITGO’s ability to obtain natural gas.

w. “NO_x” shall mean nitrogen oxides.

x. “Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral.

y. “Parties” shall mean the United States and CITGO.

z. “PEMS” or “Parametric Emission Monitoring System” shall mean the monitoring system that CITGO may elect to install on the 123B-2 heater at the Lemont Refinery pursuant to the requirements of Subparagraph 16.a and Appendix E.

- aa. “PM” shall mean particulate matter as measured by 40 C.F.R. Part 60, Appendix A, Method 5B or 5F.
- bb. “PM_{2.5}” shall mean all filterable and condensable particulate matter 2.5 microns or less in diameter, as measured by 40 C.F.R. Part 51, Appendix M, Methods 201A and 202.
- cc. “PM₁₀” shall mean all filterable and condensable particulate matter ten microns or less in diameter, as measured by 40 C.F.R. Part 51, Appendix M, Methods 201A and 202.
- dd. “Project Dollars” shall mean CITGO’s expenditures and payments incurred or made in carrying out the Supplemental Environmental Projects identified in Section VII and Appendices C and D to the extent that such expenditures or payments both:
 - (i) comply with the requirements set forth in that Section and Appendices C and D; and
 - (ii) constitute CITGO’s direct payments for such projects or CITGO’s external costs for contractors, vendors, and equipment.
- ee. “Refinery” or “Lemont Refinery” shall mean the refinery owned and operated by CITGO in Lemont, Illinois, which is subject to the requirements of this Consent Decree.
- ff. “Section” shall mean a portion of this Consent Decree that has a heading identified by an upper case Roman numeral.
- gg. “Shutdown” shall mean the cessation of operation for any purpose.
- hh. “SO₂” shall mean sulfur dioxide.
- ii. “SRP” or “Claus Sulfur Recovery Plant” shall mean a process unit that recovers sulfur from hydrogen sulfide by a vapor phase catalytic reaction of sulfur dioxide with hydrogen sulfide.

jj. “Startup” shall mean the setting in operation for any purpose.

kk. “VOC” or “Volatile Organic Compounds” shall have the definition set forth in 40 C.F.R. § 51.100(s).

ll. “WESP” shall mean a wet electrostatic precipitator.

mm. “WESP Root Cause Analysis” shall mean an assessment conducted through a process of investigation to determine the primary cause and any contributing cause(s) of “triggering events,” as defined in Subparagraph 25.a, at the WESP.

nn. “WGS” shall mean a wet gas scrubber.

V. COMPLIANCE REQUIREMENTS

A. NO_x Emissions Reductions from Heaters and Boilers

14. 590H-1 and 590H-2 Heaters.

a. NO_x Emissions Monitoring. By no later than December 31, 2016, CITGO shall install, certify, calibrate, maintain, and operate NO_x CEMS on the 590H-1 and 590H-2 heaters in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and 40 C.F.R. Part 60, Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B. However, unless a federal or state regulation or a permit condition otherwise requires compliance with 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3, and 5.1.4, for these CEMS, CITGO may conduct: (1) either a Relative Accuracy Audit (“RAA”) or a Relative Accuracy Test Audit (“RATA”) once every three (3) years; and (2) a Cylinder Gas Audit (“CGA”) each calendar quarter in which a RAA or RATA is not performed.

b. NO_x Emissions Limits. By no later than March 31, 2017, CITGO shall comply with a NO_x emission limit of 0.020 pounds NO_x per MMBtu at 3% stack oxygen (“O₂”)

on a 30-day rolling average basis at the 590H-1 heater and at the 590H-2 heater. Compliance shall be demonstrated using the NO_x CEMS and calculated using 40 C.F.R. Part 60, Appendix A, Method 19.

15. 125B-1 and 125B-2 Heaters.

a. NO_x Emissions Monitoring. No later than December 31, 2017, CITGO shall install, certify, calibrate, maintain, and operate a NO_x CEMS on the 125B-1 and 125B-2 heater stack in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and 40 C.F.R. Part 60, Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B. However, unless a federal or state regulation or a permit condition otherwise requires compliance with 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3, and 5.1.4, for these CEMS, CITGO may conduct: (1) either a Relative Accuracy Audit (“RAA”) or a Relative Accuracy Test Audit (“RATA”) once every three (3) years; and (2) a Cylinder Gas Audit (“CGA”) each calendar quarter in which a RAA or RATA is not performed.

b. NO_x Emissions Limits. By no later than December 31, 2017, CITGO shall install on the 125B-1 heater and on the 125B-2 heater low NO_x burners that are designed to achieve a NO_x emission rate of less than or equal to 0.030 pounds of NO_x per MMBtu high heating value (“HHV”) when firing natural gas at 3% stack O₂ at full design load without air preheat, even if upon installation actual emissions exceed 0.030 pounds of NO_x per MMBtu HHV, on a 30-day rolling average basis. By no later than March 31, 2018, CITGO shall comply with a NO_x emission limit of 0.030 pounds NO_x per MMBtu at 3% stack O₂ on a 30-day rolling average basis at the 125B-1 heater and at the 125B-2 heater. Compliance shall be demonstrated using the NO_x CEMS and calculated using 40 C.F.R. Part 60, Appendix A, Method 19.

16. 123B-2 Heater.

a. NO_x Emissions Monitoring. By no later than December 31, 2019, CITGO shall either: (1) install, certify, calibrate, maintain, and operate NO_x CEMS on the 123B-2 heater, consistent with the requirements set forth in Subparagraph 15.a for NO_x CEMS installation at the 125B-1 and 125B-2 heaters; or (2) develop, certify, calibrate, maintain, and operate a parametric emission monitoring system (“PEMS”) for NO_x on the 123B-2 heater in accordance with the requirements set forth in Appendix E.

b. NO_x Emissions Limit. By no later than December 31, 2019, CITGO shall install on the 123B-2 heater low NO_x burners that are designed to achieve a NO_x emission rate of less than or equal to 0.030 pounds of NO_x per MMBtu HHV when firing natural gas at 3% stack O₂ at full design load without air preheat, even if upon installation actual emissions exceed 0.030 lb/MMBtu HHV, on a 30-day rolling average basis. By no later than March 31, 2020, CITGO shall comply with a NO_x emission limit at the 123B-2 heater of 0.030 pounds of NO_x per MMBtu at 3% stack O₂ on a 30-day rolling average basis. Compliance shall be demonstrated using the NO_x CEMS or PEMS, as applicable, and calculated using 40 C.F.R. Part 60, Appendix A, Method 19.

17. Opportunity to Request Modification of a NO_x Emissions Limit.

a. First Three Years. If during the first three years of monitoring NO_x emissions with CEMS or PEMS pursuant to Paragraphs 14–16, CITGO believes that, despite best efforts at design, installation, operation, and maintenance of controls, it is technically infeasible to comply with the NO_x emissions limit applicable to one or more heaters, CITGO may submit to EPA a demonstration supporting this conclusion and may request an increase, not to exceed 0.010 pounds NO_x per MMBtu over the original limit, of the NO_x emission limit prescribed for each such heater in Paragraphs 14–16. EPA may grant or deny CITGO’s request in whole or in part, subject to dispute resolution under Section XIII of this Decree; however, the Parties agree that “best efforts,” as used in this Subparagraph, shall not include decreasing production.

b. After First Three Years. At any time after the first three years of monitoring, CITGO may submit a demonstration, as described in Subparagraph 17.a, but any decision by EPA to deny CITGO’s request in whole or in part shall not be subject to dispute resolution.

c. Effect of EPA Approval of CITGO’s Demonstration. If EPA approves CITGO’s demonstration and request for one or more increased NO_x emissions limits, the approved increased limit(s) shall be deemed to have been effective under Paragraphs 14–16, as applicable, and in place of the previous limit(s) during all of the following time periods: (i) the time during which achievement of the previous limit(s) was infeasible (including any period of time that occurred prior to submittal of the demonstration), (ii) the pendency of EPA’s review of CITGO’s demonstration, and (iii) the pendency of any proceeding undertaken pursuant to Section XIII (Dispute Resolution).

d. Stipulated Penalties for NO_x Emissions up to and including 0.010 lb/MMBtu Above Applicable Limits. During any of the three periods of time set forth in Subparagraph 17.c, EPA may demand stipulated penalties for NO_x emissions that are up to and including 0.010 lb/MMBtu above the applicable limits set forth in Paragraphs 14–16. However, CITGO shall not be obligated to pay any such demand until: (i) after all three time periods identified in Subparagraph 17.c are over; and (ii) CITGO's demonstration has been finally denied by either EPA or the Court (if the dispute is resolved by the Court). Stipulated penalties under this Subparagraph shall not accrue: (i) during the period, if any, beginning on the 31st day after EPA's receipt of CITGO's demonstration under Subparagraph 17.a or 17.b until the date that EPA notifies CITGO of its decision; and (ii) with respect to a decision that CITGO disputes under the dispute resolution provisions of this Decree, during the period, if any, beginning on the 21st day after the date that CITGO serves its written Statement of Position on the United States until the United States issues its final decision on this dispute; and (iii) with respect to judicial review by this Court of any dispute under the dispute resolution provisions of this Decree, during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute.

e. Stipulated Penalties for NO_x Emissions Greater Than 0.010 lb/MMBtu Above the Applicable Limit. Nothing in this Paragraph 17 shall alter or modify the provisions in this Consent Decree related to stipulated penalties for violating NO_x emission limits at Heaters 590H-1, 590H-2, 125B-1, 125B-2, and 123B-2 when the NO_x emissions are greater 0.010 lb/MMBtu above the applicable limit.

18. Shutdown of 106B-1, 107B-21, 108B-41, and 108B-42 Heaters. By no later than the Date of Entry, CITGO shall permanently shut down and submit applications to

surrender all operating permits for the 106B-1, 107B-21, 108B-41, and 108B-42 heaters. These operating permits shall be surrendered prior to termination of this Consent Decree pursuant to Section XXI (Termination). CITGO may seek to recommence operation of one or more of these heaters only if:

- a. CITGO accepts the applicability of 40 C.F.R. Part 60, Subpart Ja, as to the heater in question;
 - b. CITGO undertakes the following:
 - i. For Heaters 106B-1, 107B-21, and 108B-42, CITGO installs, at a minimum, ultra-low NO_x burners that are designed to achieve a NO_x emission rate of less than or equal to 0.030 pounds of NO_x per MMBtu high heating value when firing natural gas at 3% stack O₂ at full design load without air preheat;
 - ii. For Heater 108B-41, CITGO installs, at a minimum, ultra-low NO_x burners that are designed to achieve a NO_x emission rate of less than or equal to 0.060 pounds of NO_x per MMBtu high heating value when firing natural gas at 3% stack O₂ at full design load with air preheat;
- and
- c. CITGO complies with all applicable new source permitting requirements prior to restarting the heater in question.

Regardless of whether CITGO recommences the operation of any of these heaters as a new source, CITGO is forever subject to the prohibition in Paragraph 48 of this Consent Decree on the use of the emission reductions resulting from the shutdown of these heaters.

B. PM Emissions Reductions from Heaters

19. PM, PM₁₀, and PM_{2.5} Emissions Limits at Certain Heaters. By no later than the Date of Entry, CITGO shall comply with PM, PM₁₀, and PM_{2.5} emission limits of 0.0075 pounds per MMBtu on a 3-hour average basis, as demonstrated by a performance test, at each of the following heater stacks: the 590H-1 heater stack, the 590H-2 heater stack, the 115B-1/115B-2

heater stack, and the 125B-1/125B-2 heater stack. All of the performance tests shall be completed by no later than 90 days of the Date of Entry. Each performance test shall consist of a 3-run average with each run being at least 1 hour in duration.

C. PM Emissions Reductions from FCCU

20. By no later than the Date of Lodging, CITGO shall control and reduce PM emissions from the FCCU by continuous operation of a Wet Gas Scrubber (“WGS”) and a Wet Electrostatic Precipitator (“WESP”).

21. FCCU PM Emission Limits. By September 30, 2015, CITGO shall comply with an FCCU emission limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis.

22. Opportunity to Request Modification of the FCCU PM Limit.

a. Prior to September 30, 2018. If, prior to September 30, 2018, CITGO believes that, despite best efforts at design, installation, operation, and maintenance of controls, it is technically infeasible to comply with a limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis at the FCCU, CITGO may submit to EPA a demonstration supporting this conclusion and may request an increase in the limit. CITGO shall not seek a limit greater than 1.0 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis. EPA may grant or deny CITGO’s request in whole or in part, subject to dispute resolution in Section XIII of this Decree; however, the Parties agree that “best efforts,” as used in this Subparagraph, shall not include decreasing production.

b. After September 30, 2018. At any time after September 30, 2018, CITGO may submit a demonstration, as described in Subparagraph 22.a, but any decision by EPA to deny CITGO’s request in whole or in part shall not be subject to dispute resolution.

c. Effect of EPA Approval of CITGO's Demonstration. If EPA approves CITGO's demonstration and request for an increased limit for PM at the FCCU, the approved increased limit shall be deemed to have been effective and in place of the previous limit during all of the following time periods: (i) the time during which achievement of the previous limit was infeasible (including any period of time that occurred prior to submittal of the demonstration), (ii) the pendency of EPA's review of CITGO's demonstration, and (iii) the pendency of any proceeding undertaken pursuant to Section XIII (Dispute Resolution).

d. Stipulated Penalties for PM Emissions Greater than 0.5 lb/1000 lb Coke but Less than or Equal to 1.0 lb/1000 lb Coke. During any of the three periods of time set forth in Subparagraph 22.c, EPA may demand stipulated penalties for FCCU PM emissions that are greater than 0.5 lb/1000 lb coke but less than or equal to 1.0 lb/1000 lb coke on a 3-hour average basis. However, CITGO shall not be obligated to pay any such demand until: (i) after all three time periods identified in Subparagraph 22.c are over; and (ii) CITGO's demonstration has been finally denied by either EPA or the Court (if the dispute is resolved by the Court). Stipulated penalties under this Subparagraph shall not accrue: (i) during the period, if any, beginning on the 31st day after EPA's receipt of CITGO's demonstration under Subparagraph 22.a or 22.b until the date that EPA notifies CITGO of its decision; and (ii) with respect to a decision that CITGO disputes under the dispute resolution provisions of this Decree, during the period, if any, beginning on the 21st day after the date CITGO serves its written Statement of Position on the United States until the United States issues its final decision on this dispute; and (iii) with respect to judicial review by this Court of any dispute under the dispute resolution provisions of this Decree, during the period, if any, beginning on the 31st day after the Court's receipt of the final

submission regarding the dispute until the date that the Court issues a final decision regarding such dispute.

e. Stipulated Penalties for FCCU PM Emissions Greater than 1.0 lb/1000 lb Coke. Nothing in this Paragraph 22 shall alter or modify the provisions in this Consent Decree related to stipulated penalties for violating the FCCU PM emission limit when the PM emissions are greater than 1.0 lb/1000 lb coke on a 3-hour average basis.

23. Demonstrating Compliance with FCCU PM Emission Limit. Each calendar year commencing in 2016, CITGO shall conduct a PM stack test at the FCCU using EPA Reference Method 5B in accordance with 40 C.F.R. § 60.106(b)(2). By no later than 90 days prior to the first test, CITGO shall submit a stack test protocol to EPA for review and approval. Upon demonstrating through at least three (3) annual tests that the limit established under Paragraph 21, reflecting any adjustments made pursuant to Paragraph 22, is not being exceeded, CITGO may request EPA approval to conduct tests less frequently than annually. Such approval will not be unreasonably withheld.

24. Additional Requirements for PM Controls at the FCCU: Fallen Electrodes within the FCCU WESP. Beginning no later than the Date of Entry, upon becoming aware of a fallen electrode within the FCCU WESP, CITGO shall, as soon as practicable but in no case later than 48 hours from such knowledge, reduce the coke burn rate at the FCCU to a maximum of 55,000 pounds per hour until repairs are made and the WESP is operational. This requirement shall be in addition to the requirement to maintain compliance with all applicable PM emission limits.

25. Additional Requirements for PM Controls at the FCCU: WESP Root Cause Analysis and Corrective Action.

a. WESP Triggering Events. Beginning no later than 30 days after the Date of Entry unless a force majeure causes the event, CITGO shall conduct a WESP Root Cause Analysis and develop a corrective action plan to address the findings of the WESP Root Cause Analysis when any of the following occurs:

- i. A PM limit exceedance; or
- ii. During FCCU operation:
 - (1) The voltage at the WESP falls below 40,000 Volts on a three-hour rolling average, rolled hourly; or
 - (2) The amperage at the WESP falls below 90 milliAmps on a three-hour rolling average, rolled hourly.

Provided, however, that CITGO shall not be required to conduct a WESP Root Cause Analysis even if one or both of the triggers under Subparagraph 25.a.(ii) are satisfied if the trigger results from a routine WESP flush.

b. WESP Root Cause Analysis and Corrective Action Report: Full Report.

By no later than 45 days after an event triggers a WESP Root Cause Analysis, CITGO shall prepare a WESP Root Cause Analysis and Corrective Action Report that shall, at a minimum, include the following elements:

- i. An identification and detailed analysis setting forth the root cause and any contributing cause(s) of the triggering event;
- ii. The steps, if any, taken to limit the duration of the incident;
- iii. An analysis of the measures reasonably available to prevent the root cause and any contributing cause(s) of the triggering event from recurring. This analysis shall include an evaluation of possible design, operational, and maintenance measures; and

- iv. The corrective actions taken or to be taken consistent with the requirements of Subparagraph 25.d.

c. WESP Root Cause Analysis and Corrective Action Report: Abbreviated

Report. If a triggering event resulting from the same underlying cause(s) occurs while CITGO is investigating and/or implementing corrective action for a prior incident with the same underlying cause(s), within 45 days after the triggering event occurs, CITGO shall prepare a report that:

(i) briefly identifies the root cause and any contributing causes of the new incident; (ii) sets forth the steps, if any, taken to limit the duration of the new incident; and (iii) identifies the date of the original incident for which a full report was generated or is being generated.

d. WESP Corrective Action. CITGO shall undertake as expeditiously as

reasonably possible all reasonably available corrective actions that are necessary to correct the cause of the triggering event and to prevent a recurrence of the root cause and any contributing cause(s) identified in the WESP Root Cause Analysis. In all reports required under

Subparagraph 25.b or 25.e, CITGO shall include a description of any corrective actions already completed or, for corrective actions that are not yet completed, a schedule for their implementation including proposed commencement and completion dates.

e. WESP Third Party Evaluation.

i. If triggering events with the same root cause and/or contributing cause(s) recur two times within a rolling twelve-month period, CITGO shall document each event and retain an independent third party to evaluate CITGO's assessment of the events' cause(s). By no later than 120 days after the second incident in the rolling twelve-month period occurs, the independent third party shall prepare a written report ("Third Party Report"), which may include recommendations for additional corrective actions. CITGO shall implement all recommended corrective action(s) or implement other actions that address the root cause and any

contributing causes identified by the third party. CITGO shall document its basis for not implementing any element of the third party's recommended corrective action(s). Dispute resolution under Section XIII may be invoked for disputes arising under this Subparagraph.

ii. The requirements of Subparagraph 25.e shall not apply if triggering events with the same root cause and/or contributing cause(s) are already the subject of a third party evaluation and the corrective actions identified from that evaluation have not been completed. CITGO shall not be required to retain a third party more than once every rolling twenty-four-months for incidents that are caused by fallen electrodes.

f. WESP Root Cause Analyses and Corrective Action Reports (Full and Abbreviated) and WESP Third Party Evaluations: Reports to EPA. CITGO shall include a copy of each report required by Subparagraphs 25.b, 25.c, and/or 25.e in the first semi-annual report due under Section IX of the Consent Decree (Reporting and Recordkeeping) that CITGO submits after the Subparagraph 25.b, 25.c, and/or 25.e report(s) is (are) required to be completed. In any semi-annual report that includes a report under Subparagraph 25.e, CITGO also shall include, if applicable, documentation of its basis for not implementing any element of the third party's recommended corrective action.

g. EPA Review and Comment on Corrective Actions; CITGO Response; Dispute Resolution.

i. EPA Review. After a review of a WESP Root Cause Analysis and Corrective Action Report or Third Party Report, EPA may notify CITGO in writing of: (1) any deficiencies in the corrective actions identified; and/or (2) any objections to the schedules for implementation of the corrective actions. In the notification, EPA will provide an explanation of the basis for its objections.

- ii. CITGO Response.
 - (1) If CITGO has not yet commenced implementation of the corrective action, CITGO will implement an alternative or revised corrective action or implementation schedule based on EPA's comments.
 - (2) If a corrective action that EPA has identified as deficient has already commenced or is already completed, then CITGO is not obligated to implement any alternative or additional corrective action identified by EPA. However, CITGO shall be on notice that EPA considers such corrective action deficient and not acceptable for remedying any subsequent, similar root cause(s) of any future triggering event.
- iii. If EPA and CITGO cannot agree on the appropriate corrective action(s) or implementation schedule(s), if any, to be taken in response to a WESP Root Cause Analysis and Corrective Action Report, either party may invoke the dispute resolution provisions of Section XIII of this Consent Decree.

D. Sulfur Pit Emissions, Operation, and Maintenance

26. NSPS Subpart A and J Applicability. As of the Date of Lodging, the Sulfur Recovery Plant ("SRP") shall continue to be an "affected facility" within the meaning of Subparts A and J of 40 C.F.R. Part 60. CITGO shall continue to route or re-route all sulfur pit emissions at the Lemont Refinery so that they are eliminated, controlled, or included and monitored as part of the SRP emissions subject to NSPS Subpart A and the NSPS Subpart J limit for SO₂, 40 C.F.R. § 60.104(a)(2).

27. Requirement for Good Air Pollution Control Practices. By no later than the Date of Entry, CITGO shall operate and maintain the following control and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions: 1) the sulfur pit air sweep system for sulfur pits on SRP Trains A, B, C, and D; and

2) the sulfur pit air sweep flow meters located at each eductor inlet. CITGO shall route all sweep air and emissions into the combustion zone of the tail gas incinerator.

28. Sulfur Pit Operation and Maintenance Plan.

a. Requirements of Sulfur Pit Operation and Maintenance Plan. By no later than 90 days after the Date of Entry, CITGO shall develop and submit to EPA for review a comprehensive Sulfur Pit Operation and Maintenance Plan (“Sulfur Pit O&M Plan”) that is designed to ensure operation and maintenance of all sulfur pits in accordance with good air pollution control practices for minimizing emissions. CITGO shall include the following minimum elements in the Sulfur Pit O&M Plan:

- i. a description of sulfur pit air sweep operations;
- ii. flow meter and eductor maintenance procedures;
- iii. flow meter inlet minimum air flow associated with no sulfur pit venting and the method used to determine such set point;
- iv. flow meter inlet alarm air flow set point(s) for operators to trouble shoot and take action to improve the eductor performance; and
- v. response procedures when sulfur pit air sweep flow is low.

b. EPA Review and Comment on Sulfur Pit O&M Plan. EPA may provide written comments on CITGO’s Sulfur Pit O&M Plan or EPA may decline to comment. The procedures of this Subparagraph shall apply as follows:

i. If EPA provides written comments within 60 days of receipt of CITGO’s Sulfur Pit O&M Plan, then within 45 days of receipt of such comments, CITGO shall either: (1) modify the Sulfur Pit O&M Plan consistent with EPA’s written comments; or (2) submit the matter for dispute resolution under Section XIII of this Consent Decree.

ii. If EPA does not provide written comments within 60 days of receipt of CITGO's Sulfur Pit O&M Plan, EPA nonetheless may still provide written comments requiring changes to the Sulfur Pit O&M Plan. Within 60 days of receipt of such comments, CITGO shall either: (1) implement all of the actions required by the comments; or (2) notify EPA that CITGO has determined that implementation of one or more those actions (which CITGO shall specifically identify) would be either unduly burdensome to implement given the degree to which CITGO has proceeded with implementing the Sulfur Pit O&M Plan or would be otherwise unreasonable. If CITGO notifies EPA that it will not implement all of the actions required by the comments, then within sixty days of receipt of CITGO's notification, EPA may either accept CITGO's position or invoke dispute resolution pursuant to Section XIII of this Consent Decree.

iii. During the pendency of any dispute resolution proceeding pursuant to this Paragraph 28, CITGO shall implement all parts of the Sulfur Pit O&M Plan that are not the subject of the dispute and shall also implement the disputed parts consistent with CITGO's proposal. After completion of the dispute resolution proceeding, CITGO shall implement the disputed parts of the Sulfur Pit O&M Plan consistent with the results of the dispute resolution proceeding.

**E. CEMS Operation and Maintenance Plan and PEMS Monitoring Protocol;
CEMS and PEMS Downtime Root Cause Analyses and Corrective Actions**

29. CEMS Operation and Maintenance Plan and PEMS Monitoring Protocol. By no later than 180 days after the Date of Entry of this Consent Decree, CITGO shall develop and submit to EPA for review a comprehensive CEMS Operation and Maintenance Plan ("CEMS O&M Plan") and a comprehensive PEMS Monitoring Protocol (as identified in Appendix E) that is designed to enhance the performance of the CEMS and the PEMS, improve CEMS and PEMS

accuracy and stability, and minimize periods of CEMS and PEMS downtime. The CEMS O&M Plan shall include, at a minimum, each element identified in Paragraphs 30–34. The PEMS Monitoring Protocol shall include, at a minimum, each element identified in Appendix E. EPA’s review of CITGO’s CEMS O&M Plan and its PEMS Monitoring Protocol shall be undertaken pursuant to Paragraph 35.

30. CEMS and PEMS Operations and Maintenance Training. At least once every 12-month period that commences 90 days after CITGO’s submission of the CEMS O&M Plan and the PEMS Monitoring Protocol, CITGO shall provide training to all individuals (CITGO employees and contractors) involved in CEMS and/or PEMS operations and maintenance in order to ensure and maintain necessary levels of competence in maintaining and operating CEMS and/or PEMS. All newly-hired individuals (CITGO employees and contractors) involved in CEMS and/or PEMS operations and maintenance shall receive CEMS and/or PEMS training, as applicable, which shall include a review of the CEMS O&M Plan and/or the PEMS Monitoring Protocol, prior to undertaking any CEMS-related and/or PEMS-related responsibilities. All individuals involved in CEMS and/or PEMS operations and maintenance shall have access to and be familiar with the CEMS O&M Plan and/or PEMS Monitoring Protocol. These requirements shall be identified and described in the CEMS O&M Plan and the PEMS Monitoring Protocol.

31. CEMS Testing and Calibration. Commencing on the Date of Lodging for Existing CEMS and on the date required by this Consent Decree for CEMS that will be installed pursuant to this Consent Decree, CITGO shall certify, calibrate, maintain, and operate all CEMS in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and 40 C.F.R.

Part 60, Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B. However, unless a federal or state regulation or a permit condition otherwise requires compliance with 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3, and 5.1.4, CITGO may conduct: (1) either a Relative Accuracy Audit (“RAA”) or a Relative Accuracy Test Audit (“RATA”) once every three (3) years; and (2) a Cylinder Gas Audit (“CGA”) each calendar quarter in which a RAA or RATA is not performed. Provided however, that for CEMS that monitor flares that do not receive routine flow, CITGO may use the alternative relative accuracy procedures described in Section 16.0 of Performance Specification 2 of Appendix B to Part 60 (cylinder gas audits) for conducting relative accuracy evaluations, except that it is not necessary to include as much of the sampling probe or sampling line as practical.

32. CEMS Operation. Commencing on the Date of Lodging for Existing CEMS and on the date required by this Consent Decree for CEMS that will be installed pursuant to this Consent Decree, CITGO shall operate each CEMS at all times, including during periods of process unit Startup, Shutdown, and/or Malfunction.

33. Notice of Removal of CEMS from list of Existing CEMS. If CITGO determines that it no longer needs to operate an Existing CEMS because an underlying legal requirement (*e.g.*, this Consent Decree, a federal or state statute or regulation, or a permit) no longer requires the operation of the CEMS, then CITGO shall notify EPA, pursuant to Section XVII (Notices), that CITGO has modified the list of “Existing CEMS” set forth in Section IV (Definitions) to delete the CEMS that is the subject of the submission from the list. CITGO shall submit this notice within 60 days of the date that the operation of the CEMS no longer was required. In the Notice, CITGO shall identify the legal requirement that formerly required the CEMS’ operation and the date that the legal requirement no longer was applicable.

34. Preventive Maintenance, Quality Assurance/Quality Control (“QA/QC”), and Repair. By no later than the date of submission of the CEMS O&M Plan, CITGO shall develop the programs set forth in Subparagraphs 34.a–34.c for CEMS. By no later than the date of submission of the PEMS Monitoring Protocol, CITGO shall develop the programs set forth in the Monitoring Protocol. Commencing 90 days after submission of the CEMS O&M Plan and the PEMS Monitoring Protocol, and continuing until termination of this Consent Decree, CITGO shall implement these programs, as updated by the requirements of Subparagraph 34.d and/or the results of EPA’s review and comment pursuant to Paragraph 35 and/or the results of dispute resolution pursuant to Paragraph 35.

a. CEMS Routine Preventive Maintenance Program. The CEMS Routine Preventive Maintenance Program shall identify and require implementation of a regularly-scheduled set of activities designed to minimize problems that cause CEMS downtime. Such activities and procedures may be based initially on the CEMS vendor’s recommendations. Routine preventive maintenance procedures shall include regular (*e.g.*, daily, weekly, monthly) internal (and, as needed, external) operation and maintenance (“O&M”) checks designed to minimize CEMS downtime. Internal O&M checks include, but are not limited to, CEMS inspections, routine cleaning of components, and any other routine maintenance. External O&M checks include, but are not limited to, independent third party CEMS audits or other assessments to ensure continuous CEMS operation. For the CEMS, both internal and external O&M checks are in accordance with the actions already required by 40 C.F.R. Part 60, Appendix F.

b. CEMS QA/QC Program. The CEMS QA/QC Program shall identify and require implementation of activities to assess and maintain the quality of continuous emissions monitoring data, including regular (*e.g.*, daily, weekly monthly) internal (and, as needed,

external) QA/QC and operation checks designed to maintain or improve data quality. Internal QA/QC and operation checks include, but are not limited to, periodic calibrations, drift tests, relative accuracy tests, and any other sampling and analyses to assess the quality of CEMS data (*i.e.*, accuracy and precision). External QA/QC and operation checks include, but are not limited to, independent third party CEMS audits, third party sampling and analysis for accuracy and precision, or other assessments to ensure accurate CEMS operations. Both internal and external QA/QC and operation checks for CEMS are in accordance with the actions already required by 40 C.F.R. Part 60, Appendix F.

c. CEMS Repair Program. The CEMS Repair Program shall identify and require the implementation of procedures designed to ensure the prompt repair of CEMS to address both routine and non-routine maintenance and repair. As part of its CEMS Repair Program, CITGO shall: (i) maintain a spare parts inventory adequate to support normal operating and preventive maintenance requirements; and (ii) establish written procedures for the acquisition of parts on an emergency basis (*e.g.*, vendor availability on a next-day basis). At all times during the pendency of this Consent Decree, CITGO shall ensure that a current employee of the Lemont Refinery has been designated with the responsibility for maintaining the adequacy of the spare parts inventory. The on-site spare parts inventory may be based initially on CEMS vendor recommendations.

d. Review and Update of Programs. No less than one time per 12-month period commencing in the 12-month period that is one year after the date that CITGO submits its CEMS O&M Plan and its PEMS Monitoring Protocol, CITGO shall review and update, as needed, its CEMS Routine Preventive Maintenance Programs, its CEMS QA/QC Program, its CEMS Repair Program, and/or its PEMS Monitoring Protocol to incorporate necessary or

appropriate modifications based on operating experience with each CEMS and with the PEMS. CITGO also shall review and update, as needed, its CEMS Routine Preventive Maintenance Program, its CEMS QA/QC Program, its CEMS Repair Program, and/or its PEMS Monitoring Protocol based on the results of each CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report written pursuant to Paragraph 36 by no later than 135 days after the CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report is due.

35. EPA Review and Comment on CEMS Operation and Maintenance Plan and the PEMS Monitoring Protocol. EPA may provide written comments on CITGO's CEMS O&M Plan and/or CITGO's PEMS Monitoring Protocol, or EPA may decline to comment. The procedures of this Paragraph shall apply.

a. If EPA provides written comments within 60 days of receipt of CITGO's CEMS O&M Plan or its PEMS Monitoring Protocol, then within 45 days of receipt of such comments, CITGO shall either: (i) modify the Plan and/or Protocol consistent with EPA's written comments; or (ii) submit the matter for dispute resolution under Section XIII of this Consent Decree.

b. If EPA does not provide written comments within 60 days of receipt of CITGO's CEMS O&M Plan or its PEMS Monitoring Protocol, EPA nonetheless may still provide written comments requiring changes to one or both of these documents. Within 60 days of receipt of such comments, CITGO shall either: (i) implement all of the actions required by the comments; or (ii) notify EPA that CITGO has determined that implementation of one or more of those actions (which CITGO shall specifically identify) would be either: (1) unduly burdensome to implement given the degree to which CITGO has proceeded with implementing the CEMS O&M Plan or the PEMS Monitoring Protocol, as applicable; or (2) would be otherwise

unreasonable. If CITGO notifies EPA that it will not implement all of the actions required by the comments, then within 60 days of receipt of CITGO's notification, EPA may either accept CITGO's position or invoke dispute resolution pursuant to Section XIII of this Consent Decree.

c. During the pendency of any dispute resolution proceeding pursuant to this Paragraph 35, CITGO shall implement all parts of the CEMS O&M Plan and/or PEMS Monitoring Protocol that are not the subject of the dispute and shall also implement the disputed parts consistent with CITGO's proposal. After completion of the dispute resolution proceeding, CITGO shall implement the disputed parts of the CEMS O&M Plan and/or PEMS Monitoring Protocol consistent with the results of the dispute resolution proceeding.

36. CEMS and PEMS Downtime Root Cause Analysis and Corrective Action.

a. CEMS and PEMS Downtime Triggering Event. At any time that, in two consecutive calendar quarters, a CEMS or the PEMS has downtime greater than 5% of the time in each such calendar quarter, CITGO shall conduct a CEMS Downtime Root Cause Analysis or a PEMS Downtime Root Cause Analysis, as applicable. For purposes of the 5% downtime calculation, "downtime" shall mean the period of time during the operation of the emission unit being monitored in which any of the required CEMS data or PEMS data either are not recorded or are invalid for any reason (*e.g.*, monitor malfunctions, data system failures, preventive maintenance, unknown causes, *etc.*), but shall not include downtime associated with routine CEMS zero and span checks and QA/QC activities required by this Consent Decree and/or an applicable regulation. CEMS and PEMS data that meet the requirements of 40 C.F.R. § 60.13 shall be considered "valid" for purposes of determining downtime.

b. CEMS and PEMS Downtime Root Cause Analysis and Corrective Action Report. By no later than 45 days after an event that triggers a CEMS Downtime Root Cause

Analysis or a PEMS Downtime Root Cause Analysis, CITGO shall prepare a CEMS Downtime Root Cause Analysis and Corrective Action Report and/or a PEMS Downtime Root Cause Analysis, as applicable, that shall, at a minimum, include the following elements:

- i. An identification and detailed analysis setting forth the root cause and any contributing cause(s) of the CEMS and/or PEMS downtime;
- ii. The steps, if any, taken to limit the duration of the CEMS and/or PEMS downtime;
- iii. An analysis of the measures reasonably available to prevent the root cause and any contributing cause(s) of the CEMS and/or PEMS downtime from recurring. This analysis shall include an evaluation of possible design, operational, and maintenance measures; and
- iv. The corrective actions taken or to be taken consistent with the requirements of Subparagraph 36.c.

c. CEMS and PEMS Downtime Corrective Action. CITGO shall undertake as expeditiously as reasonably possible all reasonably available corrective actions that are necessary to correct the cause of the CEMS and/or PEMS downtime, as applicable, and to prevent a recurrence of the root and any contributing cause(s) identified in the CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report. In this Report, CITGO shall include a description of any corrective actions already completed or, for corrective actions that are not yet completed, a schedule for their implementation.

d. CEMS and PEMS Downtime Third Party Evaluation. For any specific CEMS and/or PEMS for which a CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report is required twice within twelve (12) consecutive calendar quarters, CITGO shall retain an independent third party to evaluate CITGO's assessment of the CEMS and/or PEMS downtime cause(s). By no later than 120 days after CITGO's required preparation

of the second CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report, the independent third party shall prepare a written report (“CEMS Downtime Third Party Report” and/or “PEMS Downtime Third Party Report”) which may include recommendations for additional corrective actions and/or modifications to CITGO’s CEMS O&M Plan and/or to CITGO’s PEMS Monitoring Protocol. CITGO shall implement all recommended corrective action(s) or implement other actions that address the root cause and any contributing causes identified by the third party. CITGO shall document its basis for not implementing any elements of the third party’s recommended corrective action(s). Dispute resolution under Section XIII may be invoked for disputes arising under this Subparagraph.

e. CEMS and/or PEMS Downtime Root Cause Analyses and CEMS and/or PEMS Downtime Third Party Evaluations: Reports to EPA. CITGO shall include a copy of each CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report and each CEMS and/or PEMS Downtime Third Party Report in the first semi-annual report due under Section IX of the Consent Decree (Reporting and Recordkeeping) that CITGO submits after this (these) Report(s) is (are) required to be completed. In any semi-annual report that includes a CEMS and/or PEMS Downtime Third Party Report, CITGO also shall include, if applicable, documentation of its basis for not implementing any element of the third party’s recommended corrective action.

f. EPA Review and Comment on CEMS and/or PEMS Downtime Corrective Actions; CITGO Response; Dispute Resolution.

- i. EPA Review. After a review of a CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report, EPA may notify CITGO in writing of: (1) any deficiencies in the corrective actions identified; and/or (2) any objections to the schedules of implementation of the corrective actions. In the notification, EPA will provide an explanation of the basis for its objections.

- ii. CITGO Response.
 - (1) If CITGO has not yet commenced implementation of the corrective action, CITGO will implement an alternative or revised corrective action or implementation schedule based on EPA's comments.
 - (2) If a corrective action that EPA has identified as deficient has already commenced or is already completed, then CITGO is not obligated to implement any alternative or additional corrective action identified by EPA. However, CITGO shall be on notice that EPA considers such corrective action deficient and not acceptable for remedying any subsequent, similar root cause(s) of any future CEMS and/or PEMS monitor downtime.
- iii. If EPA and CITGO cannot agree on the appropriate corrective action(s) or implementation schedule(s), if any, to be taken in response to a CEMS and/or PEMS Downtime Root Cause Analysis and Corrective Action Report, either party may invoke the dispute resolution provisions of Section XIII of the Consent Decree.

F. Emissions Controls for Vacuum Trucks

37. Use of Carbon Canisters on Vacuum Trucks. By no later than the Date of Entry, for all vacuum trucks that are used at the Lemont Refinery for the collection and transportation of purged process fluids subject to the requirements of 40 C.F.R. Part 63, Subpart H, CITGO shall comply with 40 C.F.R. § 63.166(b)(3) by using carbon canisters as emissions control devices on the vacuum trucks.

G. Flaring Emission Reductions and Controls

38. Emission Reductions from Flares and Control of Flaring Events. CITGO shall implement and comply with the Emissions Reductions from Flares and Control of Flaring Events set forth in Appendix A to this Consent Decree by the dates specified therein to control and minimize emissions from the flaring devices at the Lemont Refinery.

H. Leak Detection and Repair

39. NSPS Applicability. Upon the Date of Entry, each “process unit” (as defined by 40 C.F.R. § 60.590a(e)) at the Lemont Refinery shall be an “affected facility” for purposes of 40 C.F.R. Part 60, Subpart GGGa (“Subpart GGGa”), and shall be subject to and comply with the requirements of Subpart GGGa by no later than one year from the Date of Entry, except as specifically provided in this Paragraph.

a. The requirements of Subpart GGGa shall not apply to compressors at the Lemont Refinery.

b. Process units on which construction commenced prior to January 4, 1983, shall not be subject to the requirements in 40 C.F.R. § 60.482-7a(h)(2)(ii) regarding difficult-to-monitor valves.

c. Entry of this Consent Decree shall satisfy the following notification and testing requirements that are triggered by initial applicability of 40 C.F.R. Part 60, Subparts A and GGGa: 40 C.F.R. §§ 60.7, 60.8, 60.482-1a(a) and 60.487a(e).

d. CITGO previously conducted two consecutive months of monitoring following the initial applicability of Subpart GGGa at the Lemont Refinery. Those two consecutive months of monitoring satisfy the requirement to conduct such monitoring under Subpart GGGa.

40. Enhanced Leak Detection and Repair. CITGO shall implement and comply with the requirements of the Enhanced Leak Detection and Repair Program (“ELP”) set forth in Appendix B to this Consent Decree by the dates specified therein. The requirements of Appendix B are in addition to the applicable requirements under 40 C.F.R. Part 60, Subpart GGGa; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts H and CC.

The terms “in light liquid service” and “in gas/vapor service” shall have the definitions set forth in the applicable provisions of 40 C.F.R. Part 60, Subpart GGGa and 40 C.F.R. Part 63, Subpart CC.

41. Nothing in this Subsection V.H or in Appendix B of this Consent Decree shall relieve CITGO of its independent obligation to comply with the requirements of any other federal, state or local Leak Detection and Repair (“LDAR”) regulation that may be applicable to “equipment” (as that term is defined in applicable LDAR regulations) at the Lemont Refinery.

I. Benzene Waste Operations NESHAP

42. At all times, CITGO shall utilize the provisions found at 40 C.F.R. § 61.342(e) (the “6 BQ compliance option”) for compliance with the BWON at the Lemont Refinery. CITGO shall not seek to change from the 6 BQ compliance option.

43. Carbon Canisters. CITGO shall comply with the requirements of this Paragraph at all locations at the Lemont Refinery where a carbon canister(s) is utilized as a control device under the Benzene Waste NESHAP.

a. CITGO shall continue to use primary and secondary carbon canisters and operate them in series at the Lemont Refinery where such systems are in use as of the Date of Lodging of the Consent Decree and shall maintain a complete, accurate and up-to-date list at the Lemont Refinery that identifies the location where each secondary carbon canister is installed and whether VOC or benzene is used to monitor for breakthrough at each such canister under Subparagraph 43.d, including the date of any change to the constituent being monitored for breakthrough.

b. Except as expressly permitted under Subparagraph 43.f, CITGO shall not use single carbon canisters for any new units or installations that require controls pursuant to the Benzene Waste NESHAP at the Lemont Refinery.

c. For dual carbon canister systems, “breakthrough” between the primary and secondary canister is defined as any reading equal to or greater than 50 ppm volatile organic compounds, excluding ethane and methane (hereinafter in this Paragraph only “VOC”), or 5 ppm benzene.

d. CITGO shall monitor for breakthrough between the primary and secondary carbon canisters monthly or in accordance with the frequency specified in 40 C.F.R. § 61.354(d), whichever is more frequent. This requirement shall commence: (i) upon Date of Entry where dual carbon canisters currently are in service; and (ii) within seven days after installation of a new, dual carbon canister system.

e. CITGO shall replace the original primary carbon canisters immediately when breakthrough is detected between the primary and secondary canister. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister. For purposes of this Paragraph, “immediately” shall mean within twelve (12) hours of the detection of a breakthrough for canisters of 55 gallons or less, and within twenty-four (24) hours of the detection of a breakthrough for canisters greater than 55 gallons. In lieu of replacing the primary canister immediately, CITGO may elect to monitor the outlet of the secondary canister the day breakthrough between the primary and secondary canister is identified and each calendar day thereafter. This daily monitoring shall continue until the primary canister is replaced. If the constituent being monitored (either benzene or VOC) is detected at the outlet of the secondary canister during this period of daily

monitoring, the primary canister must be replaced within twelve (12) hours of the detection of a breakthrough. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister.

f. Temporary Applications. CITGO may utilize properly sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For canisters operated as part of a single canister system, breakthrough is defined for purposes of this Decree as any reading of VOC above background or benzene above 1 ppm. Beginning no later than the Date of Lodging, CITGO shall monitor for breakthrough from single carbon canisters each day such canister is used. CITGO shall replace the single carbon canister with a fresh carbon canister, discontinue flow, or route the stream to an alternate, appropriate device immediately when breakthrough is detected. For this Paragraph, “immediately” shall mean within twelve (12) hours of the detection of a breakthrough for canisters of 55 gallons or less and within twenty-four (24) hours of the detection of a breakthrough for canisters greater than 55 gallons. If CITGO discontinues flow to the single carbon canister or routes the stream to an alternate, appropriate control device, such canister must be replaced before it is returned to service.

g. CITGO shall maintain a readily available supply of fresh carbon canisters at the Lemont Refinery at all times or otherwise ensure that such canisters are readily available to implement the requirements of this Paragraph 43.

h. CITGO shall maintain records associated with the requirements of this Paragraph, including carbon canister monitoring readings and the constituents being monitored for at least five (5) years after such readings occur.

J. Incorporation of Consent Decree Requirements into Federally Enforceable Permits

44. Permits Needed to Meet Compliance Obligations. If any compliance obligation under this Section V (Compliance Requirements) requires CITGO to obtain a federal, state, or local permit or approval, CITGO shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. CITGO may seek relief under the provisions of Section XII of this Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if CITGO has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

45. Permits to Ensure Survival of Consent Decree Limits and Standards after Termination of Consent Decree.

a. Prior to termination of this Consent Decree, CITGO shall submit to permitting authorities in the State of Illinois complete applications, amendments and/or supplements to incorporate as “applicable requirements” the limits and standards listed in Subparagraph 45.b into non-Title V, federally enforceable permits that will survive termination of this Consent Decree.

b. The limits and standards imposed by the following Paragraphs of this Consent Decree and its Appendices shall survive termination:

i. Heater and Boiler NO_x Emissions Monitoring and Limits. All of the requirements and limits set forth in Subparagraphs 14.a, 14.b, 15.a, 15.b, 16.a, and 16.b, reflecting any emission limit modifications pursuant to Paragraph 17;

ii. PM, PM₁₀, and PM_{2.5} Emissions Limits at Certain Heaters. All of the limits set forth in Paragraph 19;

iii. FCCU PM Emission Control and Limit. All of the requirements and limits set forth in Paragraphs 20 and 21, reflecting any emission limit modifications pursuant to Paragraph 22;

iv. Sulfur Pit Emissions, Operation, and Maintenance. All of the requirements and limits set forth in Paragraphs 26 and 27, and a requirement to have and comply with a Sulfur Pit O&M Plan with the minimum elements specified in Subparagraph 28.a;

v. Flaring Emission Reductions and Controls. All of the requirements and limits set forth in Appendix A, Paragraphs A4–A12, A18, A22–A24, A26–A27, A28.b, and A29.

vi. Leak Detection and Repair. All of the applicable requirements set forth in Paragraph 39; and

vii. All of Section VI (Emission Credit Generation); provided however, that CITGO is not required to incorporate into a federally enforceable permit the prohibitions/other language of Section VI on the use of any CD Emissions Reductions or 2005 CD Emissions Reductions (as defined in Section VI) that CITGO, upon seeking termination of this Consent Decree, demonstrate no longer are capable of being used in a manner prohibited by Section VI.

46. Modifications to Title V Operating Permits. Prior to termination of this Consent Decree, CITGO shall submit complete applications to permitting authorities in the State of Illinois to modify, amend, or revise the Title V permit of the Lemont Refinery to incorporate the limits and standards identified in the preceding Paragraph into the Title V permit. The

Parties agree that the incorporation of these emission limits and standards into Title V Permits shall be done in accordance with applicable state or local Title V rules. The Parties agree that the incorporation may be by “amendment” under 40 C.F.R. § 70.7(d) and analogous state Title V rules, where allowed by state law.

VI. EMISSION CREDIT GENERATION

47. Definitions.

a. “CD Emissions Reductions” shall mean any emissions reductions that result from any projects, controls, or any other actions used to comply with this Consent Decree.

b. “2005 CD Emissions Reductions” shall mean any emissions reductions that result from any projects, controls, or any other actions used to comply with the 2005 Consent Decree.

48. **Prohibitions.** CITGO shall neither generate nor use any CD Emissions Reductions nor any 2005 CD Emissions Reductions: (i) as netting reductions; (ii) as emissions offsets; or (iii) to apply for, obtain, trade, or sell any emission reduction credits. Baseline actual emissions for each unit during any 24-month period selected by CITGO shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions or 2005 CD Emissions Reductions had CITGO been complying with this Consent Decree and the 2005 Consent Decree during that 24-month period.

49. **Outside the Scope of the Prohibitions.** Nothing in this Section is intended to prohibit CITGO from seeking to, nor Illinois EPA from denying CITGO’s request to:

a. Use or generate emission reductions from emissions units that are covered by this Consent Decree to the extent that the proposed emissions reductions represent the difference between CD Emissions Reductions and more stringent control requirements that

CITGO may elect to accept for those emissions units in a permitting process, except as provided in Paragraph 50;

b. Use or generate emissions reductions from emissions units that are not subject to an emission limitation or control requirement pursuant to this Consent Decree and were not subject to an emission limitation or control requirement pursuant to the 2005 Consent Decree; or

c. Use CD Emissions Reductions or 2005 CD Emissions Reductions for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding Prevention of Significant Deterioration and non-attainment New Source Review rules, but including, for example, Reasonably Achievable Control Technology (RACT) rules that apply to the Lemont Refinery); provided, however, that CITGO shall not be allowed to trade or sell any CD Emissions Reductions or 2005 CD Emissions Reductions.

50. Additional Prohibition. Even if the Waste Gas minimization requirements of Paragraphs A13–A15 of Appendix A result in emissions lower than the allowable level under the flaring limitation in Paragraph A19 of Appendix A, such reductions shall be considered CD Emissions Reductions and shall be subject to the general prohibition set forth in Paragraph 48.

VII. SUPPLEMENTAL ENVIRONMENTAL PROJECTS

51. Fence Line Monitoring System. CITGO shall implement as a Supplemental Environmental Project (“SEP”) a project to install, operate, and maintain a fence line monitoring system at the Lemont Refinery to monitor certain pollutants and make the data publicly available (“Fence Line Monitoring System SEP” or “FLMS SEP”). CITGO shall implement the FLMS SEP in accordance with this Paragraph and the criteria, terms and procedures in Appendix C. CITGO shall spend not less than \$650,000 to implement the FLMS SEP. CITGO shall not

include its internal personnel costs in implementing or overseeing the implementation of the FLMS SEP as Project Dollars.

52. Green Lighting Project. CITGO shall implement as a SEP a project designed to reduce emissions of carbon dioxide, sulfur dioxide, and nitrogen dioxide through the conversion of certain lighting fixtures to more efficient lighting fixtures within facilities owned and operated by the Lemont-Bromberek Consolidated School District (“Green Lighting SEP”). CITGO shall implement this Green Lighting SEP in accordance with this Paragraph and the criteria, terms and procedures in Appendix D. CITGO shall spend not less than \$350,000 to implement this Green Lighting SEP and shall complete the implementation by no later than 18 months after the Date of Entry. CITGO shall not include its internal personnel costs in implementing or overseeing the implementation of the Green Lighting SEP as Project Dollars.

53. CITGO is responsible for the satisfactory completion of the Fence Line Monitoring SEP and the Green Lighting SEP in accordance with the requirements of this Consent Decree. CITGO may use contractors or consultants in planning and implementing the SEPs.

54. With regard to the Fence Line Monitoring SEP and the Green Lighting SEP, CITGO certifies the truth and accuracy of each of the following:

a. That all cost information provided to EPA in connection with the SEPs is complete and accurate and that CITGO in good faith estimates that the cost to implement the FLMS SEP is at least \$650,000 and the cost to implement the Green Lighting SEP is at least \$350,000;

b. That, as of the date of executing this Consent Decree, CITGO is not required to perform or develop the SEPs by any federal, state, or local law or regulation and is

not required to perform or develop the SEPs by agreement, grant, or as injunctive relief awarded in any other action in any forum;

c. That the SEPs are not projects that CITGO was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Consent Decree;

d. That CITGO has not received and will not receive credit for the SEPs in any other enforcement action;

e. That CITGO will not receive any reimbursement for any portion of the SEPs from any other person;

f. That CITGO is not a party to any Open Federal Financial Assistance Transaction that is or could be used to fund the same activity as the SEPs; and

g. That, to the best of CITGO's knowledge and belief, based upon a reasonable inquiry:

- i. The activity covered by these SEPs has not been described in an unsuccessful Federal Financial Assistance Transaction proposal submitted by CITGO to EPA within two years of the date of executing this Consent Decree (unless the project was barred from funding as statutorily ineligible); and
- ii. CITGO is not aware of any open Federal Financial Assistance Transaction that is funding or could fund the same activity as the SEPs.

55. CITGO shall include in each report required by Paragraph 63 a description of its progress toward implementing the SEPs required by this Section. In addition, the report required by Paragraph 63 for the period in which a SEP is completed shall contain the following information with respect to that SEP ("SEP Completion Report"):

- a. a detailed description of the SEP as implemented;

- b. a description of any problems encountered in completing the SEP and the solutions thereto;
- c. an itemized list of all eligible SEP costs expended;
- d. certification that the SEP has been fully implemented pursuant to the provisions of this Decree; and
- e. a description of the environmental and public health benefits resulting from implementation of the SEP (with a quantification of the benefits and pollutant reductions, if feasible).

EPA may require information in addition to that described in this Paragraph in order to evaluate CITGO's SEP Completion Report.

56. Disputes concerning the satisfactory performance of a SEP and/or the amount of eligible SEP costs may be resolved under Section XIII (Dispute Resolution). No other disputes arising under this Section shall be subject to Dispute Resolution.

57. Any public statement, oral or written, in print, film, or other media, made by CITGO making reference to one or both SEPs under this Decree shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action, *United States v. Citgo Petroleum Corporation*, taken on behalf of the U.S. Environmental Protection Agency under the Clean Air Act."

58. For federal and state income tax purposes, CITGO agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing either of the SEPs.

VIII. ENVIRONMENTAL MITIGATION

59. By no later than December 31, 2015, CITGO shall complete implementation and commence operation of the Environmental Mitigation Project described in Paragraph 60 for the purpose of reducing emissions of VOCs and benzene from the Lemont Refinery.

60. CITGO shall install controls that conform to the requirements of the Benzene Waste Operations NESHAP (“BWON”), 40 C.F.R. Part 61, Subpart FF, for the waste stream that is drained from the Refinery’s Wet Slops (Rerun) Oil Tank Number TK-433 in the Refinery’s water treatment unit from the point at which that waste stream (“TK-433 Waste Stream”) leaves TK-433 until such time as it flows into a controlled waste management unit from which all waste streams exiting that unit are fully controlled thereafter in conformance with the BWON. CITGO shall undertake at least the following actions in order to fully control the TK-433 Waste Stream in conformance with the BWON: (i) install approximately 800 feet of three-inch diameter, electric heat-traced piping from TK-433 to the Refinery’s process sewer effluent sump; and (ii) install and operate a pump and control valve to allow a ratable discharge of the TK-433 Waste Stream.

61. By signing this Consent Decree, CITGO certifies that it is not required to perform or develop this Mitigation Project by any federal, state, or local law or regulation and is not required to perform or develop this Project by agreement, grant, or as injunctive relief awarded in any other action in any forum; that this Project is not one that CITGO was planning or intending to construct, perform, or implement other than in settlement of the claims resolved by this Decree; and that CITGO will not receive any reimbursement for any portion of the costs of this Project from any other person.

62. Mitigation Project Progress and Completion Reports. CITGO shall include in each report required under Paragraph 63, a status update on the Mitigation Project required by this Section until the Project is completed. In addition, the report required by Paragraph 63 for the period in which the Project is completed shall contain the following information:

- a. A detailed description of the Project as implemented;

- b. A description of any problems encountered in completing the Project and the solutions thereto;
- c. A description of the environmental and public health benefits resulting from implementation of the Project (with a quantification of the benefits and an estimate of the pollutant reductions); and
- d. A certification that the Project has been fully implemented pursuant to the provisions of this Decree.

IX. REPORTING AND RECORDKEEPING

63. Semi-Annual Compliance Status Reports. On the dates and for the time periods set forth in Paragraph 66, CITGO shall submit to EPA in the manner set forth in Section XVII (Notices) the following information:

- a. A progress report on the implementation of the requirements of Section V of this Decree (Compliance Requirements);
- b. The total downtime of each CEMS and PEMS at the Refinery, expressed as a percentage of operating time for the calendar quarter;
- c. An identification of all times during the reporting period that the sulfur pit air sweep was below the minimum level set in the Sulfur Pit O&M Plan and a description of the corrective action(s) taken to address the incident, including whether those actions conformed to the procedures set forth in the Sulfur Pit O&M Plan;
- d. The information required in Part J (Reporting) of Appendix A of this Decree;
- e. The information required in Part N (Reporting) of Appendix B of this Decree;
- f. A description of any problems anticipated with respect to meeting the requirements of Section V, Appendix A, and/or Appendix B at the Lemont Refinery;
- g. A description of the status of the SEPs in Section VII of this Decree;
- h. A description of the status of the Mitigation Project in Section VIII of this Decree;

- i. For the semi-annual report due on August 30, the information required by Paragraph 64;
- j. The information required by Paragraph 65;
- k. Any additional matters required by any other Paragraph of this Consent Decree to be submitted in the semi-annual report; and
- l. Any additional matters that CITGO believes should be brought to the attention of EPA.

64. Emissions Data. In the semi-annual report required to be submitted on August 30 of each year for the Lemont Refinery, CITGO will provide a summary of annual emissions data for the prior calendar year to include:

- a. NO_x emissions in tons per year for each heater and boiler subject to an emissions limit under this Decree;
- b. PM, PM₁₀, and PM_{2.5} emissions in tons per year for each of the following heaters: the 590H-1 heater, the 590H-2 heater, the 115B-1/115B-2 heaters, and the 125B-1/125B-2 heaters;
- c. SO₂ emissions in tons per year from the Sulfur Recovery Plant;
- d. PM emissions in tons per year for the FCCU;
- e. NO_x, SO₂, and PM emissions in tons per year as a sum at the Lemont Refinery for all other emissions units for which emissions information is required to be included in the Refinery's annual emissions summaries and are not identified above;
- f. Emissions from Covered Flares as specified in Paragraph A33 of Appendix A; and
- g. for each of the estimates in Subparagraphs a–e, the basis for the emissions estimate or calculation (i.e., stack tests, CEMS, emission factor, *etc.*).

To the extent that the required emissions summary data is available in other reports generated by CITGO, such other reports can be attached, or the appropriate information can be extracted from such other reports and attached to the August 30 semi-annual report to satisfy the requirement.

65. Emissions Exceedances. In each semi-annual compliance status report, CITGO will provide a summary of all exceedances of emission limits required or established by this Consent Decree, which will include the following:

a. For operating unit emission limits that are required by this Consent Decree and monitored with CEMS or PEMS, for each CEMS or PEMS:

- i. total period where the emissions limit was exceeded, if applicable, expressed as a percentage of operating time for each calendar quarter;
- ii. where the operating unit has exceeded the emissions limit more than 1% of the total time of the calendar quarter, identification of each averaging period that exceeded the limit by time and date, the actual emissions of that averaging period (in the units of the limit) and any identified cause for the exceedance (including startup, shutdown, maintenance or malfunction), and, if it was a malfunction, an explanation and any corrective actions taken;
- iii. total downtime of the CEMS or PEMS, if applicable, expressed as a percentage of operating time for the calendar quarter;
- iv. where the CEMS or PEMS downtime is greater than 5% of the total time in a calendar quarter for a unit, identify the periods of downtime by time and date, and any identified cause of the downtime (including maintenance or malfunction), and, if it was a malfunction, an explanation and any corrective action taken; and
- v. if a report filed pursuant to another applicable legal requirement contains all of the information required by this Subparagraph 65.a in similar or same format, the requirements of this Subparagraph 65.a may be satisfied by attaching a copy of such report.

b. For any exceedance of any emissions limit required by this Consent Decree from an operating unit monitored through stack testing:

- i. a summary of the results of the stack test in which the exceedance occurred;
- ii. a copy of the full stack test report in which the exceedance occurred; and

- iii. to the extent that CITGO has already submitted the stack test results, CITGO need not resubmit them, but may instead reference the submission in the report (e.g., date, addressee, reason for submission).

66. Due Dates. The first compliance status report shall be due two months after the first full half-year after the Effective Date of this Consent Decree (*i.e.*, either: (i) February 28 of the year after the Effective Date, if the Effective Date is between January 1 and June 30 of the preceding year; or (ii) August 30 of the year after the Effective Date, if the Effective Date is between July 1 and December 31). The initial report shall cover the period between the Effective Date and the first full half-year after the Effective Date (a “half-year” runs between January 1 and June 30 and between July 1 and December 31). Until termination of this Decree, each subsequent report will be due on February 28 and August 30 and shall cover the prior half-year (*i.e.*, January 1 to June 30 or July 1 to December 31).

67. Each report submitted under this Consent Decree shall be signed by the plant manager (or his/her designee) or the person responsible for environmental management and compliance and shall include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

68. The reporting requirements of this Consent Decree do not relieve CITGO of any reporting obligations required by the Clean Air Act or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

69. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

X. CIVIL PENALTY

70. By no later than 30 days after the Date of Entry of this Consent Decree, CITGO shall pay the sum of \$1,955,000 as a civil penalty. CITGO shall pay the penalty by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to CITGO following entry of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Illinois, 219 S. Dearborn St., Fifth Floor, Chicago, IL 60604. At the time of payment, CITGO shall send a copy of the EFT authorization form, the EFT transaction record, and a transmittal letter: (i) to the United States in accordance with Section XVII of this Decree (Notices); (ii) by email to acctsreceivable.CINWD@epa.gov; and (iii) by mail to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

The transmittal letter shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States v. CITGO Petroleum Corporation, et al.*, and shall reference the civil action number and DOJ case number 90-5-2-1-07277/4.

71. If any portion of the civil penalty due to the United States is not paid when due, CITGO shall pay interest on the amount past due, accruing from the Effective Date through the

date of payment, at the rate specified in 28 U.S.C. § 1961. Interest payment under this Paragraph shall be in addition to any stipulated penalty due.

72. CITGO shall not deduct any penalties paid under this Decree pursuant to this Section or Section XI (Stipulated Penalties) in calculating its federal income tax.

XI. STIPULATED PENALTIES

73. Failure to Pay Civil Penalty. If CITGO fails to pay any portion of the civil penalty required to be paid under Section X of this Decree (Civil Penalty) when due, CITGO shall pay a stipulated penalty of \$2,500 per day for each day that the payment is late. Late payment of the civil penalty and any accrued stipulated penalties shall be made in accordance with Paragraph 70.

74. Failure to Meet all Other Consent Decree Obligations. CITGO shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified in Paragraphs 75, 76, and 78 unless excused under Section XII of this Decree (Force Majeure). For those provisions where a stipulated penalty of either a fixed amount or 1.2 times the economic benefit of delayed compliance is available, the decision of which alternative to seek rests exclusively within the discretion of the United States.

75. Failure to Meet Obligations in Sections V–IX of this Consent Decree (except for Subsections V.G and V.H (which are covered in Paragraphs 76 and 78)).

STIPULATED PENALTY TABLE 1

Violation	Stipulated Penalty	
75.a. <u>Violation of Subparagraphs 14.a, 15.a, 16.a (if applicable) or Paragraph 31.</u> For failure to install, certify, calibrate, maintain, or operate a CEMS in accordance with the requirements of Subparagraphs 14.a, 15.a, 16.a (if applicable) or Paragraph 31	Period of Delay or Noncompliance	Penalty per Day per CEMS
	Days 1–30	\$ 500
	Days 31–60	\$1,000
	Days 61 and later	\$2,000 or an amount equal to 1.2 times the economic benefit of noncompliance

75.b. <u>Violation of Subparagraphs 14.b, 15.b, or 16.b.</u> For failure to comply with a NO _x emission limit as set forth in Subparagraphs 14.b, 15.b, or 16.b	<u>Period of Delay or Noncompliance</u> Days 1–30 Days 31–60 Days 61 and later	<u>Penalty per Day per Unit</u> \$ 500 \$1,000 \$2,000 or an amount equal to 1.2 times the economic benefit of noncompliance
75.c <u>Violation of Subparagraph 16.a if CITGO chooses to monitor the 123B-2 Heater by means of a PEMS.</u> If CITGO elects to monitor the 123B-2 Heater by means of a PEMS, then for failure to develop, certify, calibrate, maintain, or operate a NO _x PEMS in accordance with the requirements of Subparagraph 16.a and Appendix E.	<u>Period of Delay or Noncompliance</u> Days 1–30 Days 31–60 Days 61 and later	<u>Penalty per Day per Limit</u> \$ 500 \$1,000 \$2,000 or an amount equal to 1.2 times the economic benefit of noncompliance
75.d. <u>Violation of Paragraph 18.</u> For failure to permanently shut down the heaters identified in Paragraph 18 by the Date of Entry or for restarting them at any time after the Date of Entry in a manner inconsistent with Paragraph 18	\$10,000 per day per unit	
75.e. <u>Violation of Paragraph 19.</u> For failure to comply with a PM, PM ₁₀ , or PM _{2.5} emission limit as set forth in Paragraph 19	<u>Period of Delay or Noncompliance</u> Days 1–30 Days 31–60 Days 61 and later	<u>Penalty per Day</u> \$ 500 \$1,000 \$2,000
75.f. <u>Violation of Paragraph 19.</u> For failure to conduct a PM performance test in accordance with the requirements of Paragraph 19	<u>Period of Delay or Noncompliance</u> Days 1–30 Days 31–60 Days 61 and later	<u>Penalty per Day per Test</u> \$ 200 \$ 500 \$1,000
75.g. <u>Violation of Paragraph 21.</u> For failure to comply with the FCCU PM emission limit as set forth in Paragraph 21	\$750 per day for each day from the date of the violation until compliance is demonstrated	
75.h. <u>Violation of Paragraph 23.</u> For failure to conduct a PM performance test in accordance with the requirements of Paragraph 23	<u>Period of Delay or Noncompliance</u> Days 1–30 Days 31–60 Days 61 and later	<u>Penalty per Day per Test</u> \$ 200 \$ 500 \$1,000

75.i. <u>Violation of Paragraph 24.</u> For failure to comply with the coke burn rate reductions as set forth in Paragraph 24	\$5,000 per day or an amount equal to 1.2 times the economic benefit of delayed compliance	
75.j. <u>Violation of Subparagraph 25.b or 25.c.</u> For failure to prepare a WESP Root Cause Analysis and Corrective Action Report in accordance with the requirements of Subparagraph 25.b or 25.c.	\$5,000 per month or partial month, per Report	
75.k. <u>Violation of Subparagraph 25.d.</u> For failure to undertake and complete WESP corrective action(s) in accordance with the requirements of Subparagraph 25.d	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>
	Days 1–30	\$1,250
	Days 31–60	\$3,000
	Days 61 and later	\$5,000 or an amount equal to 1.2 times the economic benefit of noncompliance
75.l. <u>Violation of Subparagraph 25.e.</u> For failure to retain a third party, have the third party prepare a report, or implement any recommendations made by the third party in accordance with the requirements of Subparagraph 25.e	\$10,000 per month or partial month	
75.m. <u>Violation of Paragraph 26.</u> For failure to route or re-route all sulfur pit emissions in accordance with the requirements of Paragraph 26	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>
	Days 1–30	\$1,000
	Days 31–60	\$1,750
	Days 61 and later	\$4,000 or an amount equal to 1.2 times the economic benefit of noncompliance
75.n. <u>Violation of Paragraph 26.</u> For failure to comply with NSPS Subpart J emission limits at the SRP	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>
	Days 1–30	\$1,000
	Days 31–60	\$2,000
	Days 61 and later	\$3,000 or an amount equal to 1.2 times the economic benefit of noncompliance

75.o. <u>Violation of Paragraph 28.</u> For failure to develop or implement the Sulfur Pit O&M plan in accordance with the requirements of Paragraph 28	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 500</td></tr> <tr> <td>Days 31–60</td><td>\$1,500</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 500	Days 31–60	\$1,500	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 500								
Days 31–60	\$1,500								
Days 61 and later	\$2,000								
75.p. <u>Violation of Paragraph 29.</u> For failure to develop or submit a CEMS O&M Plan in accordance with the requirements of Paragraphs 29 or for failure to include the CEMS Testing and Calibration requirements in the CEMS O&M Plan as required by Paragraph 31	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 200</td></tr> <tr> <td>Days 31–60</td><td>\$1,000</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 200	Days 31–60	\$1,000	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 200								
Days 31–60	\$1,000								
Days 61 and later	\$2,000								
75.q. <u>Violation of Paragraph 29.</u> For failure to develop or submit a PEMS Monitoring Protocol in accordance with the requirements of Paragraphs 29	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 200</td></tr> <tr> <td>Days 31–60</td><td>\$1,000</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 200	Days 31–60	\$1,000	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 200								
Days 31–60	\$1,000								
Days 61 and later	\$2,000								
75.r. <u>Violation of Paragraph 30.</u> For failure to develop or implement the CEMS or PEMS training requirements in accordance with Paragraph 30	<p>For failing to develop: \$5,000 per month or partial month</p> <p>For failing to implement: \$1000 per person per month late</p>								
75.s. <u>Violation of Paragraphs 5, 6, 7, or 8 of Appendix E.</u> For failure to comply with any of the requirements of Paragraphs 5, 6, 7, or 8 of Appendix E.	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 500</td></tr> <tr> <td>Days 31–60</td><td>\$1,000</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 500	Days 31–60	\$1,000	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 500								
Days 31–60	\$1,000								
Days 61 and later	\$2,000								
75.t. <u>Violation of Paragraph 34.</u> For failure to develop or implement a preventive maintenance program, a QA/QC program or a repair program in accordance with the requirements of Paragraph 34	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 500</td></tr> <tr> <td>Days 31–60</td><td>\$1,000</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 500	Days 31–60	\$1,000	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 500								
Days 31–60	\$1,000								
Days 61 and later	\$2,000								
75.u. <u>Violation of Subparagraph 36.b.</u> For failure to prepare a CEMS and/or PEMS Root Cause Analysis and Corrective Action Report in accordance with the requirements of Subparagraph 36.b	\$5000 per month or partial month, per Report								

75.v. <u>Violation of Subparagraph 36.c.</u> For failure to undertake and complete CEMS and/or PEMS corrective action(s) in accordance with the requirements of Subparagraph 36.c	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$1,250</td></tr> <tr> <td>Days 31–60</td><td>\$3,000</td></tr> <tr> <td>Days 61 and later</td><td>\$5,000 or an amount equal to 1.2 times the economic benefit of noncompliance</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$1,250	Days 31–60	\$3,000	Days 61 and later	\$5,000 or an amount equal to 1.2 times the economic benefit of noncompliance
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$1,250								
Days 31–60	\$3,000								
Days 61 and later	\$5,000 or an amount equal to 1.2 times the economic benefit of noncompliance								
75.w. <u>Violation of Subparagraph 36.d.</u> For failure to retain a third party, have the third party prepare a report, or implement any recommendations made by the third party in accordance with the requirements of Subparagraph 36.d	\$10,000 per month or partial month								
75.x. <u>Violation of Paragraph 37.</u> For failure to comply with the requirements of Paragraph 37 for vacuum trucks	\$1,000 per incident of non-compliance, per day								
75.y. <u>Violation of Paragraph 43.</u> For failure to comply with the requirements of Paragraph 43 for carbon canisters.	\$1,000 per incident of non-compliance, per day								
75.z. <u>Violation of Paragraphs 44 or 45.</u> For failure to submit an application for a permit in accordance with the requirements of Paragraph 44 or 45.	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 800</td></tr> <tr> <td>Days 31–60</td><td>\$1,500</td></tr> <tr> <td>Days 61 and later</td><td>\$3,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>	Days 1–30	\$ 800	Days 31–60	\$1,500	Days 61 and later	\$3,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day</u>								
Days 1–30	\$ 800								
Days 31–60	\$1,500								
Days 61 and later	\$3,000								
75.aa. <u>Violation of Paragraph 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, or 62 or Appendix C or Appendix D.</u> For failure to comply with and of the requirements of Paragraphs 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, or 62 or Appendix C or Appendix D	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day per Requirement</u></th></tr> <tr> <td>Days 1–30</td><td>\$1,000</td></tr> <tr> <td>Days 31–60</td><td>\$1,500</td></tr> <tr> <td>Days 61 and later</td><td>\$2,000</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day per Requirement</u>	Days 1–30	\$1,000	Days 31–60	\$1,500	Days 61 and later	\$2,000
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day per Requirement</u>								
Days 1–30	\$1,000								
Days 31–60	\$1,500								
Days 61 and later	\$2,000								
75.bb. <u>Violation of Section IX.</u> For failure to submit reports in accordance with the requirements of Section IX	<table> <tr> <th><u>Period of Delay or Noncompliance</u></th><th><u>Penalty per Day per Report</u></th></tr> <tr> <td>Days 1–30</td><td>\$ 300</td></tr> <tr> <td>Days 31–60</td><td>\$1,000</td></tr> <tr> <td>Days 61 and later</td><td>\$5,000 per month</td></tr> </table>	<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day per Report</u>	Days 1–30	\$ 300	Days 31–60	\$1,000	Days 61 and later	\$5,000 per month
<u>Period of Delay or Noncompliance</u>	<u>Penalty per Day per Report</u>								
Days 1–30	\$ 300								
Days 31–60	\$1,000								
Days 61 and later	\$5,000 per month								

76. Failure to Meet Obligations in Appendix A of this Consent Decree.**STIPULATED PENALTY TABLE 2**

Violation	Stipulated Penalty	
76.a. <u>Violation of Paragraph A2.</u> Failure to timely submit a report (§ A2) that conforms to the requirements of that Paragraph	<u>Period of delay or noncompliance</u>	<u>Penalty per day</u>
	Days 1–30	\$ 300
	Days 31–60	\$ 400
	Days 61 and later	\$ 500
76.b. <u>Violation of Paragraph A14.</u> Failure to timely submit a plan (§ A14) that conforms to the requirements of that Paragraph	<u>Period of delay or noncompliance</u>	<u>Penalty per day</u>
	Days 1–30	\$ 500
	Days 31–60	\$ 750
	Days 61 and later	\$ 1000
76.c. <u>Violation of Paragraph A3, A4, A5, A6, A7, A8.a.ii, A8.a.iii, A8a.iv, the Column labeled “Minimum accuracy requirements” in Table 13 of 40 C.F.R. Part 63, Subpart CC, or A9.</u> Failure to timely install the equipment and monitoring systems required by Paragraphs A3–A7 in accordance with the respective, applicable technical specifications in: (1) those Paragraphs or (2) Paragraph A8.a.ii, A8.a.iii, or A8.a.iv. or (3) the Column labeled “Minimum accuracy requirements” in Table 13 of 40 C.F.R. Part 63, Subpart CC; or (4) Paragraph A9	<u>Period of delay or noncompliance, per monitoring system</u>	<u>Penalty per day per monitoring system</u>
	Days 1–30	\$ 750
	Days 31–60	\$ 1250
	Days 61 and later	\$ 2000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater
76.d. <u>Violation of the QA/QC requirements in Table 13 of 40 C.F.R. Part 63, Subpart CC.</u> Failure to comply with the requirements that have a periodic compliance basis (e.g., “daily,” “weekly,”) in the column labeled “Calibration requirements” in Table 13 of 40 C.F.R. Part 63, Subpart CC	<u>Violation of a:</u>	<u>Penalty</u>
	Daily requirement	\$ 100
	Weekly requirement	\$ 125 per day late
	Quarterly requirement	\$ 200 per day late
	Annual requirement	\$ 500 per day late
	Biennial requirement	\$1,000 per day late

<p>76.e. <u>Violation of Subparagraph A8.b, A8.c, or A8.d or of any requirement of Table 13 of 40 C.F.R. Part 63, Subpart CC not covered by Subparagraphs 76.c. or 76.d.</u> Failure to comply with the requirements of Subparagraph A8.b, A8.c, or A8.d or of any requirement of Table 13 of 40 C.F.R. Part 63, Subpart CC, not covered by Subparagraph 76.c. or 76.d</p>	<p><u>Period of Delay or Noncompliance</u></p> <p>Days 1–30 Days 31–60 Days 61 and later</p>	<p><u>Penalty per Day per Requirement</u></p> <p>\$ 250 \$ 500 \$1,000</p>
<p>76.f. <u>Violation of Paragraph A10.</u> Failure to comply with a requirement of Paragraph A10</p>	<p><u>Per monitoring system, number of hours per calendar quarter in violation</u></p> <p>0.25–50.0 50.25–100.0 Over 100.0</p>	<p><u>Penalty per hour per monitoring system</u></p> <p>\$ 250 \$ 500 \$ 1000</p>
<p>76.g. <u>Violation of Paragraph A17.</u> Failure to timely install, in accordance with Paragraph A17, a Flare Gas Recovery System that conforms to the requirements of Paragraph A17</p>	<p><u>Period of delay or noncompliance, per FGRS</u></p> <p>Days 1–30 Days 31–60 Days 61 and later</p>	<p><u>Penalty per day per FGRS</u></p> <p>\$ 1250 \$ 3000 \$ 5000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater</p>

<p><u>76.h. Violation of Certain Subparagraph A18.b.i and ii Requirements.</u> Each failure to comply with the following requirements in Subparagraph A18.b.i or Subparagraph A18.b.ii:</p> <p>(1) Subparagraph A18.b.i requirement to have the Primary Compressor in the South Plant FGRS Available for Operation and/or in operation 90% of the time;</p> <p>(2) Subparagraph A18.b.i requirement to have the Secondary Compressor in the South Plant FGRS Available for Operation and/or in operation 98% of the time that the Primary Compressor is not in operation;</p> <p>(3) Subparagraph A.18.b.ii requirement to have one Compressor in the C1 FGRS Available for Operation and/or in operation 98% of the time; and (4) Subparagraph A18.b.ii requirement to have two Compressors in the C1 FGRS Available for Operation and/or in operation 90% of the time.</p>	<p>Per FGRS, the number of hours or fraction thereof—over the allowed percentage—in a rolling 8760-hour period that a Compressor required to be Available for Operation is not: \$750; provided however, that stipulated penalties shall not apply for any hour or fraction thereof in which a Compressor’s unavailability did not result in flaring.</p>						
<p><u>76.i. Violation of Subparagraph A19.a.i.</u> Failure to comply with the refinery-wide 365-day rolling average limit on Waste Gas flaring</p>	<table border="1"> <thead> <tr> <th><u>Pollutant</u></th><th><u>Penalty per Day per ton</u></th></tr> </thead> <tbody> <tr> <td>SO₂</td><td>\$ 40</td></tr> <tr> <td>VOC</td><td>\$ 120</td></tr> </tbody> </table> <p>The amount of excess emissions during the event(s) which precipitate(s) the exceedance(s) of the 365-day rolling average limit is not the sole basis for calculating the stipulated penalty due. Instead, each day on which the 365-day rolling average limit is violated—which violations most likely continue even though the precipitating event and the excess emissions do not—counts as a separate day. CITGO shall comply with Appendix 1.13 to calculate the stipulated penalties resulting from violating the flaring limitation in Subparagraph A19.a.i.</p>	<u>Pollutant</u>	<u>Penalty per Day per ton</u>	SO ₂	\$ 40	VOC	\$ 120
<u>Pollutant</u>	<u>Penalty per Day per ton</u>						
SO ₂	\$ 40						
VOC	\$ 120						

76.j. <u>Violation of Paragraph A22.</u> Failure to comply with the 365-day rolling sum emission limit on VOCs from the C4 Flare	\$2,500 per calendar day on which the limit is exceeded	
76.k. <u>Violation of Paragraph A23.</u> Failure to comply with the 365-day rolling sum emission limit on VOCs from the C5 Flare	\$2,500 per calendar day on which the limit is exceeded	
76.l. <u>Violation of Paragraph A26.</u> For each Covered Flare or Portable Flare, if any, failure to comply with the Net Heating Value in the Combustion Zone Gas ("NHV _{cz} ") standard in Paragraph A26	On a per Flare basis, hours per calendar quarter in noncompliance	Penalty per hour, or fraction thereof per flare Hours 0.25–50.0 \$ 25 Hours 50.25–100.0 \$ 75 Hours over 100.0 \$ 150 For purposes of calculating the number of hours of noncompliance with the NHV _{cz} standard, all 15-minute periods of violation shall be added together to determine the total.
76.m. <u>Violation of Paragraph A27.</u> Failure to record any information required to be recorded pursuant to Paragraph A27	\$100 per day	
76.n. <u>Violation of Paragraph A28.</u> Failure to comply with the H ₂ S emission limit at a Covered Flare after that Covered Flare is required to comply with 40 C.F.R. Part 60, Subpart J, or 40 C.F.R. Part 60, Subpart Ja	On a per Covered Flare basis, hours (on a three-hour rolling average basis) per calendar quarter in noncompliance	Penalty per hour per Covered Flare Hours 1–50.0 \$ 50 Hours 51–100.0 \$ 100 Hours over 100.0 \$ 200 For purposes of calculating the number of hours of noncompliance with the H ₂ S limit, all one-hour periods of violation shall be added together to determine the total. The averaging period for this standard is a three-hour rolling average.
76.o. <u>Violation of Paragraph A29.</u> Failure to comply with a requirement of 40 C.F.R. §§ 63.670 and 63.671 to the extent that the failure is not already subject to a stipulated penalty in Subparagraphs 76.a – 76.n.	Period of Delay or Noncompliance	Penalty per Day per Requirement per Flare Days 1–30 \$ 250 Days 31–60 \$ 500 Days 61 and later \$1,000

77. For purposes of the Table in Paragraph 76, for a given calendar day, where a failure to comply with the 365-day rolling average limit on Waste Gas flaring at the Refinery required by Subparagraph A19.a.i of Appendix A of this Decree (and potentially subject to the stipulated penalty provisions of Subparagraph 76.i) is the result of a failure to have the requisite number of Compressors Available for Operation as required by Subparagraph A18.b of Appendix A of this Decree (and potentially subject to the stipulated penalty provisions of Subparagraph 76.h), only the stipulated penalty provision that results in the higher penalty shall be applicable for that calendar day (*i.e.*, stipulated penalties under *both* Subparagraph 76.i and Subparagraph 76.h shall not be assessed).

78. Failure to Meet Obligations in Appendix B of this Consent Decree.

STIPULATED PENALTY TABLE 3

Violation	Stipulated Penalty								
78.a. <u>Violation of Paragraph B3.</u> Failure to timely develop and complete the Facility-Wide LDAR Program document required in Paragraph B3 and to update it on an annual basis if needed pursuant to Paragraph B3	<table> <tr> <th><u>Period of noncompliance</u></th><th><u>Penalty per day late</u></th></tr> <tr> <td>1 - 15 days</td><td>\$ 300</td></tr> <tr> <td>16 - 30 days</td><td>\$ 400</td></tr> <tr> <td>31 days or more</td><td>\$ 500</td></tr> </table>	<u>Period of noncompliance</u>	<u>Penalty per day late</u>	1 - 15 days	\$ 300	16 - 30 days	\$ 400	31 days or more	\$ 500
<u>Period of noncompliance</u>	<u>Penalty per day late</u>								
1 - 15 days	\$ 300								
16 - 30 days	\$ 400								
31 days or more	\$ 500								
78.b. <u>Violation of Paragraph B4.</u> Each failure to perform monitoring at the frequencies set forth in Paragraph B4	\$100 per component per missed monitoring event, not to exceed \$25,000 per month								

78.c. <u>Violation of Paragraph B6.</u> Each failure to comply with Method 21 (or the AWP, as applicable) in performing LDAR monitoring, as indicated by the leak percentage ratio calculated under Paragraph B28, but only if the auditor identified a leak rate of at least 0.5% per component type in the process unit	<table> <tr> <th>Comparative Monitoring Leak Ratio calculated <u>Paragraph B28</u></th><th>Penalty per Covered Process <u>Unit</u></th></tr> <tr> <td>$\geq 3.0 < 4.0$</td><td>\$15,000</td></tr> <tr> <td>$\geq 4.0 < 5.0$</td><td>\$30,000</td></tr> <tr> <td>$\geq 5.0 < 6.0$</td><td>\$45,000</td></tr> <tr> <td>≥ 6.0</td><td>\$60,000</td></tr> </table>	Comparative Monitoring Leak Ratio calculated <u>Paragraph B28</u>	Penalty per Covered Process <u>Unit</u>	$\geq 3.0 < 4.0$	\$15,000	$\geq 4.0 < 5.0$	\$30,000	$\geq 5.0 < 6.0$	\$45,000	≥ 6.0	\$60,000
Comparative Monitoring Leak Ratio calculated <u>Paragraph B28</u>	Penalty per Covered Process <u>Unit</u>										
$\geq 3.0 < 4.0$	\$15,000										
$\geq 4.0 < 5.0$	\$30,000										
$\geq 5.0 < 6.0$	\$45,000										
≥ 6.0	\$60,000										
78.d. <u>Violation of Paragraph B6.</u> Each failure to use a monitoring device that is attached to a data logger or equivalent equipment; or each failure, during each monitoring event, to directly electronically record the Screening Value, date, time, identification number of the monitoring equipment, or the identification of the technician in accordance with the requirements of Paragraph B6	\$100 per failure per piece of Covered Equipment, but no greater than \$2,500 per Covered Process Unit per month										
78.e. <u>Violation of Paragraph B6.</u> Each failure to transfer monitoring data to an electronic database on at least a weekly basis in accordance with the requirements of Paragraph B6	\$150 per day for each day that the transfer is late										
78.f. <u>Violation of Paragraph B7.</u> Each failure to conduct and record the calibrations and calibration drift assessments in accordance with the requirements of Paragraph B7	\$100 per missed event										
78.g. <u>Violation of Paragraph B10.</u> Each failure of an LDAR monitoring technician to undertake a repair attempt under the circumstances identified in Paragraph B10	\$150 per day for each day up to the day the repair is made, not to exceed \$1500 per leak (at which time, if the repair still is not made, the penalties in Subparagraph 78.i apply)										
78.h. <u>Violation of Paragraph B11.</u> Each failure to timely perform a first attempt at repair as required by Paragraph B11. For purposes of these stipulated penalties, the term “repair” includes the required remonitoring in Paragraph B12 after the repair attempt; the stipulated penalties in Subparagraph 78.j do not apply.	\$ 150 per day for each late day, not to exceed \$1500 per leak										

78.i. <u>Violation of Paragraph B11.</u> Each failure to timely perform a final attempt at repair as required by Paragraph B11. For purposes of these stipulated penalties, the term “repair” includes the required remonitoring in Paragraph B12 after the repair attempt; the stipulated penalties in Subparagraph 78.j do not apply.	Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>
	Valves, connectors	\$ 300	\$ 18,750
	Pumps, agitators	\$1,200	\$ 75,000
78.j. <u>Violation of Paragraph B12.</u> Each failure to timely perform Repair Verification Monitoring as required by Paragraph B12 in circumstances where the first attempt to adjust, or otherwise alter, the piece of equipment to eliminate the leak was made within 5 days and the final attempt to adjust, or otherwise alter, the piece of equipment to eliminate the leak was made within 15 days	Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>
	Valves, connectors	\$ 150	\$ 9,375
	Pumps, agitators	\$ 600	\$ 37,500
78.k. <u>Violation of Paragraph B13.</u> Each failure to undertake the drill-and-tap method in accordance with the requirements of Paragraph B13.	Period of <u>noncompliance</u>	Penalty per component per day <u>late</u>	
	Between 1 and 15 days	\$ 200	
	Between 16 and 30 days	\$ 350	
	Over 30 days	\$ 500 per day for each day over 30, not to exceed \$37,500	
78.l. <u>Violation of Paragraph B14.</u> Each failure to record the information required by Paragraph B14	\$ 100 per component per item of missed information		
78.m. <u>Violation of Paragraph B16.</u> Each improper placement of a piece of Covered Equipment on the DOR list (i.e., placing a piece of Covered Equipment on the DOR list even though it is feasible to repair it without a process unit shutdown) in violation of the requirements of Paragraph B16	Equipment <u>Type</u>	Penalty per component <u>per day on list</u>	Not to <u>exceed</u>
	Valve, connectors	\$ 300	\$ 37,500
	Pumps, Agitators	\$ 1200	\$ 150,000
78.n. <u>Violation of Subparagraph B16.a.</u> Each failure to comply with the requirement in Subparagraph B16.a that a relevant unit supervisor or person of similar authority sign off on placing a piece of Covered Equipment on the DOR list	\$250 per piece of Covered Equipment		

78.o. <u>Violation of Subparagraph B16.c.</u> Each failure to comply with the 0.10% limit on valves that may be placed on the DOR list in violation of the requirements of Subparagraph B16.c	\$5,000 per valve								
78.p. <u>Violation of Paragraph B18.</u> Each failure to install a Low-E Valve or a valve fitted with Low-E Packing when required to do so pursuant to Paragraph B18	\$1000 per valve required by Subparagraph B18.b or B18.c; \$10,000 per valve required by Subparagraph B18.d								
78.q. <u>Violation of Paragraph B23.</u> Each failure to add a piece of Covered Equipment to the LDAR program in accordance with the requirements of Paragraph B23	\$300 per piece of Covered Equipment (plus an amount, if any due under Subparagraph 78.b for any missed monitoring for a component that should have been added to the LDAR program)								
78.r. <u>Violation of Paragraph B23.</u> Each failure to remove a piece of Covered Equipment from the LDAR program in violation of Paragraph B23	\$150 per piece of Covered Equipment								
78.s. <u>Violation of Paragraph B24.</u> Each failure to develop a training protocol in accordance with the requirements of Paragraph B24	\$50 per day of noncompliance								
78.t. <u>Violation of Paragraph B24.</u> Each failure to perform initial, refresher, or new personnel training as required by the training program identified in Paragraph B24	\$1,000 per person per month late								
78.u. <u>Violation of Paragraph B25.</u> Each failure of a monitoring technician or LDAR database coordinator to complete the certification required in Paragraph B25	\$100 per failure per technician or database coordinator								
78.v. <u>Violation of Paragraph B26.</u> Each failure to perform any of the requirements relating to QA/QC in Paragraph B26	\$750 per missed requirement per quarter								
78.w. <u>Violation of Paragraph B27.</u> Each failure to conduct an LDAR audit in accordance with the schedule set forth in Paragraph B27	<table> <tr> <th><u>Period of noncompliance</u></th><th><u>Penalty per day</u></th></tr> <tr> <td>1 – 15 days</td><td>\$300</td></tr> <tr> <td>16 – 30 days</td><td>\$400</td></tr> <tr> <td>31 days or more</td><td>\$500, not to exceed \$ 50,000 per audit</td></tr> </table>	<u>Period of noncompliance</u>	<u>Penalty per day</u>	1 – 15 days	\$300	16 – 30 days	\$400	31 days or more	\$500, not to exceed \$ 50,000 per audit
<u>Period of noncompliance</u>	<u>Penalty per day</u>								
1 – 15 days	\$300								
16 – 30 days	\$400								
31 days or more	\$500, not to exceed \$ 50,000 per audit								
78.x. <u>Violation of Paragraph B27.</u> Each failure to use a third-party auditor or each use of a third-party auditor that is not experienced in LDAR audits, in violation of Paragraph B27	\$25,000 per audit								

78.y. <u>Violation of Paragraph B27.</u> Except for the requirement to undertake Comparative Monitoring, each failure to substantially comply with the LDAR audit requirements in Paragraph B28	\$10,000 per missed requirement, not to exceed \$100,000 per audit	
78.z. <u>Violation of Subparagraphs B28.a–B28.c.</u> Each failure to substantially comply with the Comparative Monitoring requirements of Subparagraphs B28.a–B28.c	\$50,000 per audit	
78.aa. <u>Violation of Paragraph B30.</u> Each failure to timely submit a Final Corrective Action Plan that substantially conforms to the requirements of Paragraph B30	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>
	1 - 15 days	\$ 100
	16 - 30 days	\$ 250
	31 days or more	\$ 500
	Not to exceed \$50,000 per audit	
78.bb. <u>Violation of Paragraph B30.</u> Each failure to implement a corrective action within 90 days after the LDAR Audit Completion Date or pursuant to the schedule that CITGO must propose pursuant to Subparagraph B30.a if the corrective action cannot be completed in 90 days	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>
	1 - 15 days	\$ 500
	16 - 30 days	\$ 750
	31 days or more	\$1,000
	Not to exceed \$100,000 per audit	
78.cc. <u>Violation of Paragraph B31.</u> Each failure to timely submit a Certification of Compliance that substantially conforms to the requirements of Paragraph B31	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>
	1 - 15 days	\$ 100
	16 - 30 days	\$ 250
	31 days or more	\$ 500
	Not to exceed \$50,000	

79. Waiver of Payment. The United States may, in its unreviewable discretion, reduce or waive payment of stipulated penalties otherwise due to it under this Consent Decree.

80. Demand for Stipulated Penalties. A written demand by the United States for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the stipulated penalty amount that the United States is demanding for each violation (as can be best estimated), the calculation method underlying the demand, and the

grounds upon which the demand is based. Prior to issuing a written demand for stipulated penalties, the United States may, in its unreviewable discretion, contact CITGO for informal discussion of matters that the United States believes may merit stipulated penalties.

81. Stipulated Penalties Accrual. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue, except as specifically set forth in Subparagraphs 17.d and 22.d, until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

82. Stipulated Penalties Payment Due Date. Stipulated penalties shall be paid no later than thirty (30) days after receipt of a written demand by the United States unless the demand is disputed through compliance with the requirements of the dispute resolution provisions of this Decree.

83. Manner of Payment of Stipulated Penalties. Stipulated penalties owing to the United States of under \$10,000 shall be paid by check and made payable to the “U.S. Department of Justice,” referencing DOJ Number 90-5-2-1-07277/4 and delivered to the U.S. Attorney’s Office in the Northern District of Illinois, 219 S. Dearborn St., Fifth Floor, Chicago, IL 60604. Stipulated penalties owing to the United States of \$10,000 or more shall be paid in the manner set forth in Section X of this Decree (Civil Penalty). All transmittal correspondence shall state that the payment is for stipulated penalties, shall identify the violations to which the payment relates, and shall include the same identifying information required by Paragraph 70, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

84. Stipulated Penalties Dispute. Stipulated penalties shall continue to accrue as provided in Paragraph 81, during any dispute resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to the Court, CITGO shall pay accrued penalties determined to be owing, together with interest, to the United States within 30 days of the effective date of the agreement or the receipt of EPA's decision or order.

b. If the dispute is appealed to the Court and the United States prevails in whole or in part, CITGO shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 days of receiving the Court's decision or order, except as provided in subparagraph c, below.

c. If any Party appeals the District Court's decision, CITGO shall pay all accrued penalties determined to be owing, together with interest, within 15 days of receiving the final appellate court decision.

85. Obligations Prior to the Effective Date. Upon the Effective Date, the stipulated penalty provisions of this Decree shall be retroactively enforceable with regard to any and all violations that have occurred prior to the Effective Date, provided that stipulated penalties that may have accrued prior to the Effective Date may not be collected unless and until this Consent Decree is entered by the Court.

86. If CITGO fails to pay stipulated penalties according to the terms of this Consent Decree, CITGO shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for CITGO's failure to pay any stipulated penalties.

87. Subject to the provisions of Section XV (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for CITGO's violation of this Consent Decree or applicable law. In addition to injunctive relief or stipulated penalties, the United States may seek mitigating emissions reductions equal to or greater than the excess amounts emitted if the violations result in excess emissions. CITGO reserves the right to oppose the United States' request for mitigating emission reductions. CITGO shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

XII. FORCE MAJEURE

88. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of CITGO, of any entity controlled by CITGO, or of CITGO's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite CITGO's best efforts to fulfill the obligation. The requirement that CITGO exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred, to prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include CITGO's financial inability to perform any obligation under this Consent Decree.

89. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, CITGO shall notify EPA in writing not later than fifteen calendar days after the time that CITGO first knew that the event might cause a delay. In the written notice, CITGO shall specifically reference this Paragraph 89 and shall provide an explanation and description of the reasons for

the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; CITGO's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of CITGO, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should have known. CITGO shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. The written notice required by this Paragraph shall be effective upon the mailing of the same by overnight mail or by certified mail, return receipt requested, to EPA in the manner set forth in Section XVII of this Decree (Notices).

90. Failure by CITGO to comply with the requirements of Paragraph 89 shall preclude CITGO from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure.

91. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify CITGO in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

92. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, or if the EPA and CITGO fail to agree on the length of the delay attributable to the Force Majeure event, EPA will notify CITGO in writing of its decision.

93. If Defendant elects to invoke the dispute resolution procedures set forth in Section XIII (Dispute Resolution), it shall do so no later than 45 days after receipt of EPA's notice. In any such proceeding, CITGO shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendant complied with the requirements of Paragraphs 88 and 89. If CITGO carries this burden, the delay at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Consent Decree identified to EPA and the Court.

XIII. DISPUTE RESOLUTION

94. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree.

A. For All Disputes Except Those Arising Under Subparagraph A20.c of Appendix A.

95. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when one Party sends the other Party a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 60 days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the

position advanced by the United States shall be considered binding unless, within 30 days after the United States has notified CITGO of the conclusion of the informal negotiation period, CITGO invokes formal dispute resolution procedures set forth below.

96. Formal Dispute Resolution. CITGO shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting CITGO's position and any supporting documentation relied upon by CITGO.

97. The United States shall serve its Statement of Position within 45 days of receipt of CITGO's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on CITGO unless CITGO files a motion for judicial resolution of the dispute in accordance with the following Paragraph.

98. CITGO may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XVII of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 45 days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of CITGO's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

99. The United States shall respond to CITGO's motion within the time period allowed by the Local Rules of this Court. CITGO may file a reply memorandum, to the extent permitted by the Local Rules.

100. Standard of Review. In all disputes arising under the Consent Decree, CITGO shall bear the burden of demonstrating that its position complies with this Consent Decree and the CAA and that CITGO is entitled to relief under applicable principles of law. The United States reserves the right to argue that its position is reviewable only on the administrative record and must be upheld unless arbitrary and capricious or otherwise not in accordance with law, and CITGO reserves the right to argue to the contrary.

101. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of CITGO under this Consent Decree unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 84. If CITGO does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties). As part of the resolution of any dispute under this Section, the Parties, by agreement, or the Court, by order, may, in appropriate circumstances, extend or modify the schedule for completion of work under this Consent Decree to account for the delay in work that occurred as a result of the dispute resolution process. CITGO shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extension or modified schedule.

B. For Disputes Arising Under Subparagraph A20.c of Appendix A.

102. For disputes arising under Subparagraph A20.c of Appendix A, the provisions of this Subsection XIII.B shall apply if CITGO invokes the accelerated dispute resolution as allowed by Subparagraph A.20.c. Paragraphs 95–101 are incorporated herein by reference except for the following changes:

Reference	Instead Of	Use
Para. 95; 4 th Sentence	60 days	15 days
Para. 95; 5 th Sentence	30 days	10 days
Para. 97; 1 st Sentence	45 days	15 days
Para. 98; 2 nd Sentence	45 days	15 days
Para.99; 1 st Sentence	“within the time period allowed by the Local Rules of this Court for responses to dispositive motions”	“within 21 days”

103. If a dispute under Subparagraph A20.c comes before this Court for disposition, both Parties jointly shall advise the Court that time is of the essence.

XIV. INFORMATION COLLECTION AND RETENTION

104. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into the Lemont Refinery, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtain documentary evidence, including photographs and similar data; and
- d. assess CITGO’s compliance with this Consent Decree.

105. Except for data recorded by any video camera that may be required pursuant to Paragraph A6 of Appendix A, until one year after the termination of this Consent Decree, CITGO shall retain all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its possession or control that directly relate to CITGO's performance of its obligations under this Consent Decree. Except for data recorded by any video camera that may be required pursuant to Paragraph A6 of Appendix A, until one year after termination of this Consent Decree, CITGO shall instruct its contractors and agents to preserve all documents, records, or other information, regardless of storage medium (*e.g.*, paper or electronic) in its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, that demonstrate or document CITGO's compliance or non-compliance with the obligations of this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States, CITGO shall provide copies of any documents, records, or other information required to be maintained under this Paragraph. CITGO shall retain the data recorded by any video camera required pursuant to Paragraph A6 of Appendix A for one year from the date of recording.

106. Except for emissions data, CITGO may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that CITGO seeks to protect as CBI, CITGO shall follow the procedures set forth in 40 C.F.R. Part 2.

107. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable

federal laws, regulations, or permits, nor does it limit or affect any duty or obligation of CITGO to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

108. Definitions. For purposes of this Section XV, the following definitions apply:

- a. “Hazardous Air Pollutants” or “HAPs” shall have the meaning set forth in 42 U.S.C. § 7412(b)(1).
- b. “FCCU Wet Electrostatic Precipitator Shutdown” or “FCCU WESP Shutdown” shall mean the physical and operational changes surrounding the shutdown and restarting of the FCCU WESP in the time period between November 11, 2008, through October 17, 2010.
- c. “PSD/NNSR Requirements” shall mean the Prevention of Significant Deterioration and Non-Attainment New Source Review requirements found in the following:
 - i. 42 U.S.C. § 7475;
 - ii. 40 C.F.R. §§ 52.21(a)(2)(iii) and 52.21(j)–52.21(r)(5);
 - iii. 42 U.S.C. §§ 7502(c)(5), 7503(a)–(c);
 - iv. 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4;
 - v. any applicable, federally enforceable state or local regulation that implements, adopts, or incorporates the federal provisions cited in this Subparagraph; and
 - vi. any Title V permit requirement that implements, adopts, or incorporates the federal, or federally enforceable state, provisions cited in this Subparagraph.
- d. “Post-Lodging Compliance Dates” shall mean any dates in this Section XV after the Date of Lodging.
- e. “Ultra Low Sulfur Diesel Project” or “ULSD Project” shall mean the physical and operational changes that CITGO made to certain process units in approximately 2010 to enable the Refinery to comply with EPA’s ULSD requirements.

109. Resolution of Claims Alleged in Complaint. Entry of this Consent Decree shall resolve the civil claims of the United States for the violations alleged in the Complaint filed in this action through the Date of Lodging unless, pursuant to Paragraphs 111, 114, or 116, the liability is resolved past the Date of Lodging.

110. Resolution of Claims Alleged in Notices and Findings of Violations (“NOV/FOVs”). Entry of this Consent Decree shall resolve the civil claims of the United States for the violations that occurred through the Date of Lodging of the Consent Decree as alleged in the following Notices and Findings of Violation (“NOV/FOVs”): (1) EPA-5-09-05-IL (February 26, 2009); and (2) EPA-5-11-IL-10 (September 30, 2011). These NOV/FOVs are attached as Appendix F to this Consent Decree.

111. Resolution of Claims for Violating PSD/NNSR Requirements at the Covered Flares. With respect to emissions of H₂S, SO₂, VOCs, and CO from the following Flares, entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for violations of the PSD/NNSR Requirements resulting from construction or modification from the date of the pre-Lodging construction or modification through the following dates:

<u>Flare</u>	<u>Date</u>
C1	Date of Lodging
C4 and C5	January 1, 2017
C2 and C3	December 31, 2017

112. Resolution of Claims for Violating PSD/NNSR Requirements at Other Process Units. With respect to emissions of the following pollutants from the following process units during the following events, entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for violations of the PSD/NNSR Requirements resulting from construction or modification during the following events that occurred from the dates those claims accrued through the Date of Lodging:

<u>Event</u>	<u>Process Unit(s)</u>	<u>Pollutant(s)</u>
FCCU WESP Shutdown	FCCU	PM, PM ₁₀ , Sulfuric Acid Mist
ULSD Project	Heater 590H-1 Heater 590H-2 Heater 115B-1 Heater 115B-2 Heater 125B-1 Heater 125B-2	NO _x , PM ₁₀ , PM _{2.5}

113. Resolution of Pre-Lodging Claims under Listed Regulations at the Covered Flares and Other Specified Process Units. With respect to emissions of the following pollutants from the following flares and process units, entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for violations of the following regulations (and any applicable state regulations that implement, adopt, or incorporate any of the following regulations) that occurred from the date of accrual through the Date of Lodging:

<u>Flare(s)/ Process Unit(s)</u>	<u>Pollutant(s)</u>	<u>Regulation(s)</u>
Covered Flares	VOCs and HAPs	<p>40 C.F.R. § 60.11(d);</p> <p>40 C.F.R. §§ 60.18(c)(1)-(2), (c)(3)(ii), (c)(4), (d), (e) and (f);</p> <p>40 C.F.R. § 63.6(e)(1)(i);</p> <p>40 C.F.R. §§ 63.11(b)(1), (3)-(5), (6)(ii), and (7);</p> <p>40 C.F.R. §§ 60.482-10(d), 60.482-10a(d), but only to the extent that these provisions require compliance with 40 C.F.R. §§ 60.18(c)(3)(ii) and (d);</p> <p>40 C.F.R. §§ 60.482-10(e), 60.482-10a(e), but only to the extent that these provisions relate to flares;</p> <p>40 C.F.R. §§ 60.592(a), 60.592a(a), but only to the extent that these provisions: (a) relate to flares, and (b) require compliance with 40 C.F.R. §§ 60.18(c)(3)(ii) and (d);</p> <p>40 C.F.R. § 63.643(a)(1), but only to the extent that this provision: (a) relates to flares, and (b) requires compliance with 40 C.F.R. §§ 63.11(b)(1) and (b)(6)(ii);</p> <p>40 C.F.R. § 63.648(a), but only to the extent that this provision: (a) relates to flares, and (b) requires compliance with 40 C.F.R. §§ 60.18(c)(3)(ii) and (d);</p> <p>Table 6 of 40 C.F.R. Part 63, Subpart CC, but only to the extent that Table 6 requires compliance with 40 C.F.R. § 63.6(e)(1)(i);</p> <p>40 C.F.R. § 63.1566(a)(1)(i) and Table 15 of Part 63, Subpart UUU, but only to the extent that Table 15: (a) relates to flares, and (b) requires compliance with 40 C.F.R. §§ 63.11(b)(1) and (b)(6)(ii);</p> <p>40 C.F.R. § 63.1566(a)(1)(i) and Table 44 of Part 63, Subpart UUU, but only to the extent that Table 44 requires compliance with 40 C.F.R. § 63.6(e)(1).</p>

<u>Flare(s)/ Process Unit(s)</u>	<u>Pollutant(s)</u>	<u>Regulation(s)</u>
C1, C2, C3, and C5 Flares	SO ₂ and H ₂ S	40 C.F.R. Part 60, Subparts A, J, and Ja
C4 Flare	SO ₂ and H ₂ S	40 C.F.R. Part 60, Subparts A and J
FCCU	PM	40 C.F.R. §§ 60.11(d) and 60.102(a)(1)

114. Resolution of Claims Continuing Post-Lodging for Failure to Comply with Requirements Related to Monitoring, Operation, and Maintenance According to Flare Design at the C1, C4, and C5 Flares. With respect to emissions of VOCs and HAPs at the following flares, entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for violations of the listed regulations from the Date of Lodging through the following dates, but only to the extent that these claims are based upon CITGO's use of too much steam in relation to vent gas flow:

<u>Flares</u>	<u>Date</u>	<u>Regulation(s)</u>
C1	January 30, 2019	40 C.F.R. § 60.18(d);
C4	December 31, 2016	40 C.F.R. § 63.11(b)(1);
C5	December 31, 2016	40 C.F.R. §§ 60.482-10(d) and 60.482-10a(d), but only to the extent that these provisions require compliance with 40 C.F.R. § 60.18(d); 40 C.F.R. §§ 60.482-10(e) and 60.482-10a(e), but only to the extent that these provisions relate to flares; 40 C.F.R. §§ 60.592(a) and 60.592a(a), but only to the extent that these provisions: (a) relate to flares; and (b) require compliance with 40 C.F.R. § 60.18(d); 40 C.F.R. § 63.643(a)(1), but only to the extent that this provision requires compliance with 40 C.F.R. § 63.11(b)(1);

		<p>40 C.F.R. § 63.648(a), but only to the extent that this provision: (a) relates to flares, and (b) requires compliance with 40 C.F.R. § 60.18(d)</p> <p>40 C.F.R. § 63.1566(a)(1)(i) and Table 15 of Part 63, Subpart UUU, but only to the extent that these provisions: (a) relate to flares, and (b) require compliance with 40 C.F.R. § 63.11(b)(1).</p>
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115. Resolution of LDAR Violations. Entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for violations of: (1) 40 C.F.R. Part 60, Subparts GGG and GGGa; (2) 40 C.F.R. Part 61, Subparts J and V; (3) the Equipment Leak Standards of 40 C.F.R. Part 63, Subpart CC; and (4) any applicable, federally enforceable state or local regulation that implements, adopts, or incorporates the federal provisions cited in this Paragraph that occurred from the date of accrual through the Date of Lodging of this Consent Decree at each process unit (as defined as 40 C.F.R. § 60.590a(e)) at the Lemont Refinery.

116. Resolution of Title V Violations. Entry of this Consent Decree shall resolve the civil claims of the United States against CITGO for the violations of Sections 502(a), 503(c), and 504(a) of the CAA, 42 U.S.C. §§ 7661a(a), 7661b(c), 7661c(a), and of 40 C.F.R. §§ 70.1(b), 70.5(a) and (b), 70.6(a), 70.6(c), and 70.7(b), that are based upon the violations resolved by Paragraphs 111–115 for the time frames set forth in those Paragraphs.

117. Resolution of Consent Decree Violations. Entry of this Consent Decree shall resolve the civil and stipulated penalty claims of the United States against CITGO for the following alleged violations of the Consent Decree entered on January 27, 2005 in *United States, et al. v. CITGO Petroleum Corporation, et al.*, Civil No. 4:04-cv-3883 (S.D. Texas):

- a. Violation of Paragraphs 136 and 137 by using CD Emissions Reductions (as defined in the 2005 Consent Decree) as netting credits for NO_x, SO₂, and PM for the ULSD Project without having a federally enforceable NO_x limit of 0.020 lb/MMBtu on Heaters 590H-1 and 590H-2.

- b. Violations of Paragraph 46 by not complying with a limit at the FCCU of 1.0 lb PM/1000 lb coke burned on a 3-hour rolling average from approximately June 30, 2010, through September 1, 2010.
- c. Violations of Paragraph 71 by failing to route or re-route all sulfur pit emissions from the Lemont Refinery sulfur recovery plant (“SRP”) so as to eliminate, control, or include and monitor them as part of the SRP’s emissions subject to 40 C.F.R. Part 60, Subpart J, on numerous days between January 2005 and June 2010.
- d. Violations of Subparagraphs 64.a, 67.b, 67.c, and 68.b by failing to continuously operate a CEMS on certain units on certain days between 2005 and 2009.
- e. Violations of Paragraph 127 (failing to complete a calibration drift assessment for remonitored components on several occasions between October 2005 and July 2007); Paragraph 128 (improperly placing two components—338NSPSLL00086 and 331NSPSLL02106—on delay of repair list); and Paragraph 219 (failing to conduct initial monthly monitoring for 14 valves in the 111 crude process unit).
- f. Violation of Paragraphs 54, 57, and 132 for failing to timely apply for permits setting forth emission limits in “lb/MMBtu” and not “tons per year” on heaters included in CITGO’s final NO_x Control Plan.
- g. Violation of Paragraph 30A by not complying with a NO_x emission limit at the FCCU of 40 ppmvd on a 7-day rolling average on various days in the second quarters of 2013 and 2014 and by not complying with a NO_x emission limit of 20 ppmvd on a 365-day rolling average on various days in the second quarter of 2013.

118. The resolutions of liability in this Section are based exclusively on claims arising at CITGO’s Lemont Refinery.

119. Reservation of Rights: Resolution of Liability in Paragraphs 111, 114, and 116 Can be Rendered Void. Notwithstanding the resolutions of liability in Paragraphs 111, 114, and 116 for the period of time between the Date of Lodging and the Post-Lodging Compliance Dates, those resolutions of liability shall be rendered void if CITGO materially fails to comply with any of the obligations and requirements in Appendix A. However, the resolutions of liability in

Paragraphs 111, 114, and 116 shall not be rendered void if CITGO remedies such material failure as expeditiously as practicable and pays all stipulated penalties due as a result of such material failure.

120. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CAA or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraphs 109–117. The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Lemont Refinery, whether related to the violations addressed in this Consent Decree or otherwise.

121. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, or other appropriate relief relating to the Lemont Refinery or CITGO's CAA violations, CITGO shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraphs 109–117 of this Section and for which the resolution of liability has not been voided pursuant to Paragraph 119.

122. This Consent Decree is not a permit, or a modification of any permit, under any federal, state, or local laws or regulations. CITGO is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations,

and permits; and CITGO's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that CITGO's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. § 7401 *et seq.*, or with any other provisions of federal, state, or local laws, regulations, or permits.

123. This Consent Decree does not limit or affect the rights of CITGO or of the United States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against CITGO, except as otherwise provided by law.

124. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XVI. COSTS

125. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by CITGO.

XVII. NOTICES

126. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

As to the United States:

Required only where the “United States” (and not “EPA”) is a recipient:

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. 90-5-2-1-07277/4

As to EPA (Headquarters):

Required where either the “United States” or “EPA” is a recipient.
For EPA Headquarters, only electronic submissions are required. Those shall be addressed to:

refinerycd@erg.com

If the submission cannot be sent by email, it shall be sent to:

Eastern Research Group, Inc.
14555 Avion Parkway, Suite 200
Chantilly, VA 20151

As to EPA (Region 5):

Required where either the “United States” or “EPA” is a recipient.
Hard copy and electronic submissions are required.
Hard copies shall be addressed to:

Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

Electronic submissions shall be addressed to:

Galinsky.virginia@epa.gov
Wagner.william@epa.gov

As to CITGO:

CITGO Lemont Refinery
Manager HSSE
135th Street and New Avenue
Lemont, IL 60439

CITGO Petroleum Corporation
Environmental Manager
1293 Eldridge Parkway
Houston, TX 77077

CITGO Petroleum Corporation
General Counsel
1293 Eldridge Parkway
Houston, TX 77077

By no later than the Date of Entry, CITGO shall provide the United States, EPA (Headquarters), and EPA (Region 5) the email addresses of the above-referenced CITGO contacts.

127. Date of Submission and Date of Receipt. Unless otherwise provided herein, notifications to or communications between the Parties shall be deemed submitted on the date they are postmarked and sent by U.S. Mail or overnight mail, postage prepaid, or, if the communication is required to be submitted solely to EPA, then on the date sent by electronic mail; provided however, that notices under Section XII (Force Majeure) and Section XIII (Dispute Resolution) shall be sent by overnight mail or by certified or registered mail, return receipt requested. Notifications to or communications mailed to CITGO shall be deemed to be received on the earlier of: (i) actual receipt by CITGO; or (ii) receipt of an electronic version sent to the addressees set forth in this Paragraph. If the date for submission of a report, study, notification, or other communication falls on a Saturday, Sunday or federal holiday, the report, study, notification, or other communication will be deemed timely if it is submitted the next business day.

128. Any Party may change either the notice recipient or the address for providing notices to it by serving the other Party with a notice setting forth such new notice recipient or address.

XVIII. EFFECTIVE DATE

129. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket; provided however, that CITGO hereby agrees that it shall be bound to perform duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Consent Decree before entry, or the Court declines to enter the Consent Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date shall terminate.

XIX. RETENTION OF JURISDICTION

130. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, or effectuating or enforcing compliance with the terms of this Decree.

XX. MODIFICATION

131. The terms of this Consent Decree, including the attached Appendices, may be modified only by a subsequent written agreement signed by the United States and CITGO. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

132. The nature and frequency of reports required by this Consent Decree may be modified by mutual agreement of the Parties. The agreement of the United States to such

modification must be in the form of a written notification from EPA, but need not be filed with the Court to be effective.

133. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XIII (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 100, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXI. TERMINATION

134. Termination: Conditions Precedent. Prior to termination, CITGO must have completed all of the following requirements of this Consent Decree:

- a. Payment of all civil penalties, stipulated penalties and other monetary obligations;
- b. Satisfactory compliance with all provisions of Section V (Compliance Requirements), Appendix A (Emission Reductions from Flares and Control of Flaring Events), and Appendix B (Enhanced LDAR Program);
- c. Operation for at least one year in satisfactory compliance with the limitations and standards set forth in Paragraphs 14.b, 15.b, 16.b, 19, 21, A18.b, A19, A22, A23, and A26;
- d. Completion of the Supplemental Environmental Projects in Section VII;
- e. Completion of the Environmental Mitigation Project in Section VIII;
- f. Application for and receipt of all non-Title V air permits necessary to ensure survival of the Consent Decree limits and standards after termination of this Consent Decree (the Paragraph 45 requirement); and

g. Application for a modification or amendment to the Title V permit to incorporate the limits and standards in Paragraph 45 into the Title V permit of the Lemont Refinery.

135. Termination: Procedure.

a. At such time as CITGO believes that it has satisfied the conditions for termination set forth in Paragraph 134, CITGO may submit a request for termination to the United States by certifying such compliance in accordance with the certification language in Paragraph 67. In the Request for Termination, CITGO must demonstrate that it has satisfied the conditions for termination set forth in Paragraph 134. The Request for Termination shall include all necessary supporting documentation.

b. Following receipt by the United States of CITGO's Request for Termination, the Parties shall confer informally concerning the Request. If the United States agrees that the Decree may be terminated, the Parties shall submit a joint motion to terminate this Consent Decree.

c. If the United States does not agree that the Consent Decree may be terminated, or if CITGO does not receive a written response from the United States within 60 days of CITGO's submission of the Request for Termination, CITGO may invoke dispute resolution under Section XIII of this Decree (Dispute Resolution).

XXII. PUBLIC PARTICIPATION

136. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is

inappropriate, improper, or inadequate. CITGO consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified CITGO in writing that it no longer supports entry of the Decree.

XXIII. SIGNATORIES/SERVICE

137. Each undersigned representative of CITGO and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

138. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. CITGO agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXIV. INTEGRATION

139. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and its Appendices and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXV. FINAL JUDGMENT

140. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and CITGO. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

Dated this _____ day of _____, 201__.

UNITED STATES DISTRICT JUDGE

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. CITGO Petroleum Corporation, et al.* (N.D. Ill.).

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

s/ John C. Cruden
JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

s/ Annette M. Lang
ANNETTE M. LANG
Senior Counsel
Environmental Enforcement Section
Environment and Natural Resources Division
P.O. Box 7611
Washington, D.C. 20044-7611
(202) 514-4213
(202) 616-6584 (fax)
annette.lang@usdoj.gov

ZACHARY T. FARDON
United States Attorney
Northern District of Illinois

s/ Jonathan Haile
JONATHAN HAILE
Assistant United States Attorney
219 S. Dearborn St., 5th Floor
Chicago, IL 60604
312 886-2055 (phone)
Jonathan.haile@usdoj.gov

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. CITGO Petroleum Corporation, et al.* (N.D. Ill.).

**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY:**

s/ Cynthia Giles***

CYNTHIA GILES

Assistant Administrator

Office of Enforcement and Compliance Assurance

United States Environmental Protection Agency

Washington, D.C. 20460

s/ Susan Shinkman***

SUSAN SHINKMAN

Director, Office of Civil Enforcement

Office of Enforcement and Compliance Assurance

United States Environmental Protection Agency

Washington, D.C. 20460

s/ Phillip A. Brooks***

PHILLIP A. BROOKS

Director, Air Enforcement Division

Office of Enforcement and Compliance Assurance

United States Environmental Protection Agency

Washington, D.C. 20460

*** Signed with permission.

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. CITGO Petroleum Corporation, et al.* (N.D. Ill.).

**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 5:**

s/ Robert A. Kaplan***
Acting Regional Administrator
Region 5
United States Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604

*** Signed with Permission.

We hereby consent to the entry of the Consent Decree in the matter of *United States v. CITGO Petroleum Corporation, et al.* (N.D. Ill.).

**FOR DEFENDANT CITGO PETROLEUM
CORPORATION:**

s/ Eduardo Assef***

EDUARDO ASSEF

Vice President of Refining

1293 Eldridge Parkway

Houston, Texas 77077

*** Signed with permission.

We hereby consent to the entry of the Consent Decree in the matter of *United States v. CITGO Petroleum Corporation, et al.* (N.D. Ill.).

**FOR DEFENDANT PDV MIDWEST
REFINING, LLC:**

s/ Richard Esser***
RICHARD ESSER
President
1293 Eldridge Parkway
Houston, TX 77077

*** Signed with Permission.