IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

UNITED STATES OF AMERICA, Plaintiff, STATE OF OKLAHOMA and STATE OF WYOMING, Plaintiff-Intervenors, v. SINCLAIR TULSA REFINING COMPANY, SINCLAIR WYOMING REFINING COMPANY, and SINCLAIR CASPER REFINING COMPANY, Defendants.	CIVIL ACTION NO. _____ JUDGE

CONSENT DECREE

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CONSENT DECREE

WHEREAS, Plaintiff the United States of America ("United States"), by the authority of the Attorney General of the United States and through its undersigned counsel, acting at the request and on behalf of the United States Environmental Protection Agency ("EPA"), Plaintiff-Intervenor the State of Oklahoma ("Oklahoma"), on behalf of the Oklahoma Department of Environmental Quality, and Plaintiff-Intervenor the State of Wyoming ("Wyoming"), on behalf of the Wyoming Department of Environmental Quality (collectively "Plaintiff-Intervenors" or "Co-Plaintiffs"), have simultaneously filed Complaints and lodged this Consent Decree against defendants Sinclair Tulsa Refining Company ("STRC"), Sinclair Wyoming Refining Company ("SWRC") and Sinclair Casper Refining Company ("SCRC") (collectively "the Sinclair Refineries") for alleged environmental violations at the petroleum refineries in the following locations: Tulsa, Oklahoma ("Tulsa Refinery"); Sinclair, Wyoming ("Sinclair Wyoming Refinery"); and Casper, Wyoming ("Casper Refinery");

WHEREAS, the United States alleges, upon information and belief, that each of the Sinclair Refineries has violated and/or continues to violate the following statutory and regulatory provisions:

1) Prevention of Significant Deterioration ("PSD") requirements found at Part C of Subchapter I of the Clean Air Act (the "Act"), 42 U.S.C. §§ 7475 and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the "PSD Rules"); and "Plan Requirements for Non Attainment Areas" at Part D of Subchapter I of the Act, 42 U.S.C. §§ 7502-7503 and the regulations promulgated thereunder at 40 C.F.R. § 51.165(a) and (b) and at Title 40, Part 51, Appendix S and at 40 C.F.R. § 52.24 ("PSD/NSR Regulations"), for heaters and boilers and fluid catalytic cracking unit catalyst regenerators for nitrogen oxide ("NOx"), sulfur dioxide ("SO_2"), carbon monoxide ("CO") and particulate matter ("PM");

2) New Source Performance Standards ("NSPS") found at 40 C.F.R. Part 60, Subparts A and J, under Section 111 of the Act, 42 U.S.C. § 7411 ("Refinery NSPS Regulations"), for sulfur recovery plants, fuel gas combustion devices and fluid catalytic cracking unit catalyst regenerators;

3) Leak Detection and Repair ("LDAR") requirements promulgated pursuant to Sections 111 and 112 of the Act, and found at 40 C.F.R. Part 60 Subparts VV and GGG; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H and CC ("LDAR Regulations"); and

4) National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Benzene Waste Operations promulgated pursuant to Section 112(e) of the Act, and found at 40 C.F.R. Part 61, Subpart FF ("Benzene Waste Operations NESHAP Regulations"); and

WHEREAS, the United States also specifically alleges that, upon information and belief, each of the Sinclair Refineries has been and/or continues to be in violation of the state implementation plans ("SIPs") and other state rules and regulations adopted by the states in which the Sinclair Refineries are located to the extent that such plans, rules, or regulations implement, adopt or incorporate the above-described federal requirements;

WHEREAS, the United States further alleges that the Sinclair Refineries have violated and/or continue to violate the reporting requirements found at Section 103(a) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9603(a), and Section 304(b) and (c) of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11004(b) and (c), and the regulations promulgated thereunder;

WHEREAS, Oklahoma and Wyoming have joined in this matter alleging violations of their respective applicable SIP provisions and/or other state rules and regulations incorporating and implementing the foregoing federal requirements; in particular, Wyoming has issued notices of violation against the Casper Refinery (Docket numbers 3366-02 and 3426-02) and the Sinclair Wyoming Refinery (Docket number 3368-02).

WHEREAS, each of the Sinclair Refineries denies that it has violated the foregoing statutory, regulatory and SIP provisions and the state and/or local rules and regulations incorporating and implementing the foregoing federal requirements, and maintains that it has been and remains in compliance with all applicable statutes, regulations and permits and is not liable for civil penalties and injunctive relief;

WHEREAS, with respect to the provisions of Section V.J. ("Control of Acid Gas Flaring Incidents and Tail Gas Incidents") of this Consent Decree, EPA maintains that "[i]t is the intent of the proposed standard [40 C.F.R. § 60.104] that hydrogen-sulfide-rich gases exiting the amine regenerator [or sour water stripper gases] be directed to an appropriate recovery facility, such as a Claus sulfur plant," *see* Information for Proposed New Source Performance Standards: Asphalt Concrete Plants, Petroleum Refineries, Storage Vessels, Secondary Lead Smelters and Refineries, Brass or Bronze Ingot Production Plants, Iron and Steel Plants, Sewage Treatment Plants, Vol. 1, Main Text at 28;

WHEREAS, EPA further maintains that the failure to direct hydrogen-sulfide-rich gases to an appropriate recovery facility -- and instead to flare such gases under circumstances that are not sudden or infrequent or that are reasonably preventable -- circumvents the purposes and intentions of the standards at 40 C.F.R. Part 60, Subpart J;

WHEREAS, EPA recognizes that "Malfunctions," as defined in Part IV of this Consent Decree and 40 C.F.R. § 60.2, of the "Sulfur Recovery Plants" or of "Upstream Process Units" may result in flaring of "Acid Gas" or "Sour Water Stripper Gas" on occasion, as those terms are defined herein, and that such flaring does not violate 40 C.F.R. § 60.11(d) if the owner or operator, to the extent practicable, maintains and operates such units in a manner consistent with good air pollution control practice for minimizing emissions during these periods;

WHEREAS, projects undertaken pursuant to this Consent Decree are for the purposes of abating or controlling atmospheric pollution or contamination by removing, reducing, or preventing the creation of emission of pollutants ("pollution control facilities") and as such, may be considered for certification as pollution control facilities by federal, state, or local authorities;

WHEREAS, a predecessor to STRC and SWRC previously conducted third-party audits for compliance with the Benzene Waste Operations NESHAP at the Tulsa Refinery and Sinclair Wyoming Refinery, respectively, and disclosed their findings to the U.S. EPA Region 6 and Region 8 on April 1, 2004;

WHEREAS, the United States is engaged in a federal strategy for achieving cooperative agreements with petroleum refineries in the United States to achieve across the board reductions in emissions ("Global Settlement Strategy");

WHEREAS, by entering into this Consent Decree, the Sinclair Refineries have indicated that they are committed to pro-actively resolving environmental concerns relating to their operations;

WHEREAS, the United States anticipates that the affirmative relief and environmental projects identified in Parts V and VII of this Consent Decree will reduce emissions of nitrogen oxide by approximately 1,100 tons annually, will reduce emissions of sulfur dioxide by approximately 4,600 tons annually, and will also result in reductions of volatile organic compounds and particulate matter ("PM");

WHEREAS, discussions between the Parties have resulted in the settlement embodied in the Consent Decree;

WHEREAS, the Sinclair Refineries have waived any applicable federal or state requirements of statutory notice of the alleged violations;

WHEREAS, notwithstanding the foregoing reservations, the Parties agree that: (a) settlement of the matters set forth in the Complaint (filed herewith) is in the best interests of the Parties and the public; and (b) entry of the Consent Decree without litigation is the most appropriate means of resolving this matter;

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

NOW THEREFORE, with respect to the matters set forth in the Complaint, and in Part XVI of the Consent Decree ("Effect of Settlement"), and before the taking of any testimony, without adjudication of any issue of fact or law, and upon the consent and agreement of the Parties to the Consent Decree, 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 and over the Parties pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367(a). In addition, this Court has jurisdiction over the subject matter of this action pursuant to Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477, Section 325(b) of EPCRA, 42 U.S.C. § 11045(b), and Section 109(c) of CERCLA, 42 U.S.C. § 9609(c). The Complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against the Sinclair Refineries under the Clean Air Act, EPCRA, and CERCLA. The authority of the United States to bring this suit is vested in the United States Department of Justice by 28 U.S.C. §§ 516 and 519 and Section 305 of the CAA, 42 U.S.C. § 7605, Section 325 of EPCRA, 42 U.S.C. § 11045, and Section 109(c) of CERCLA, 42 U.S.C. § 9606(c).

2. Venue is proper in the United States District Court for the District of Wyoming 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). The Sinclair Refineries consent to the personal jurisdiction of this Court and waive any objections to venue in this District.

3. Notice of the commencement of this action has been given to the State of Oklahoma and the State of Wyoming, in accordance with Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1), and as required by Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

II. APPLICABILITY AND BINDING EFFECT

4. The provisions of the Consent Decree will apply to the Sinclair Refineries. The provisions of the Consent Decree will be binding upon the United States, the Co-Plaintiffs, and the Sinclair Refineries, including their officers, agents, servants, employees in their capacity as such, and all other persons and entities as provided for by Fed. R. Civ. P. 65(d).

5. Subject to Paragraph 340 (Public Notice and Comment), the Parties agree not to contest the validity of the Consent Decree in any subsequent proceeding to implement or enforce its terms.

6. Effective from the Date of Entry of the Consent Decree until its termination, each of the Sinclair Refineries agrees that they are covered by this Consent Decree. Effective from

the Date of Lodging of the Consent Decree, the Sinclair Refineries will give written notice of the Consent Decree to any successors in interest prior to the transfer of ownership or operation of any portion of their respective refineries and will provide a copy of the Consent Decree to any successor in interest. The relevant Sinclair Refinery will notify the United States and the Applicable Co-Plaintiff in accordance with the notice provisions set forth in Paragraph 341 (Notice), of any successor in interest at least thirty (30) days prior to any such transfer.

7. Each of the Sinclair Refineries will condition any transfer, in whole or in part, of ownership of, operation of, or other interest (exclusive of any non-controlling non operational shareholder interest) in, its refinery upon the execution by the transferee of a modification to the Consent Decree which makes the terms and conditions of the Consent Decree that are applicable to the transferee. As soon as possible prior to the transfer, the relevant Sinclair Refinery will notify the United States and the Applicable Co-Plaintiff of the proposed transfer and of the specific Consent Decree provisions that the transferee is assuming. Simultaneously, the relevant Sinclair Refinery will provide a certification from the transferee that the transferee has the financial and technical ability to assume the obligations and liabilities under this Consent Decree that are related to the transfer. By no later than sixty (60) days after the transferee executes a document agreeing to substitute itself for the relevant Sinclair Refinery for all terms and conditions of this Consent Decree, the United States, the Applicable Co-Plaintiff, the relevant Sinclair Refinery, and the transferee will jointly file with the Court a motion requesting the Court to substitute the transferee as the Defendant for those terms and conditions of this Consent Decree that apply to the refinery that is being transferred. If the relevant Sinclair Refinery does not secure the agreement of the United States and the Applicable Co-Plaintiff to a Joint Motion within sixty (60) days, then the relevant Sinclair Refinery and the transferee may file a motion without the agreement of the United States and the Applicable Co-Plaintiff. The United States and the Applicable Co-Plaintiff thereafter may file an opposition to the motion. The transferring Sinclair Refinery will not be released from the obligations and liabilities of any provision of this Consent Decree unless and until the Court grants the motion substituting the transferee as the Defendant to those provisions.

8. Except as provided in Paragraph 7, each Sinclair Refinery will 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 and any attachments hereto. Each Sinclair Refinery will provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that is retained to perform work required under Part V of this Consent Decree, upon execution of any contract relating to such work. No later than thirty (30) days after the Date of Entry of the Consent Decree, each Sinclair Refinery also will provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that it already has retained to perform the work required under Part V of this Consent Decree. Copies of the Consent Decree do not need to be supplied to firms who are retained to supply materials or equipment to satisfy requirements under this Consent Decree.

III. OBJECTIVES

9. It is the purpose of the Parties in this Consent Decree to further the objectives of the federal Clean Air Act, the Wyoming Environmental Quality Act, the Oklahoma Clean Air Act, and the rules and regulations promulgated thereunder.

IV. DEFINITIONS

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

A. "Acid Gas" shall mean any gas that contains hydrogen sulfide and is generated at a refinery by the regeneration of an amine solution.

B. "Acid Gas Flaring" or "AG Flaring" shall mean the combustion of Acid Gas and/or Sour Water Stripper Gas in an AG Flaring Device.

C. "Acid Gas Flaring Device" or "AG Flaring Device" shall mean any device at the Sinclair Refineries that is used for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid. The AG Flaring Devices currently in service at the Sinclair Refineries are identified in Appendix

A to the Consent Decree. To the extent that, during the duration of the Consent Decree, the Sinclair Refineries utilize AG Flaring Devices other than those specified in Appendix A for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree.

D. "Acid Gas Flaring Incident" or "AG Flaring Incident" shall mean the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of sulfur dioxide equal to, or in excess of, five-hundred (500) pounds in any twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in a twenty-four (24) hour period and flaring continues into subsequent, contiguous, non-overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to or in excess of five-hundred (500) pounds of sulfur dioxide, then only one AG Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of flaring within the AG Flaring Incident.

E. "AMP" or "Alternative Monitoring Plan" shall mean a monitoring plan, upon approval by EPA, that the Sinclair Refineries may use in lieu of a regulatory monitoring requirement.

F. "Applicable Co-Plaintiff" shall mean the following states with respect to the following refineries:

Tulsa Refinery	State of Oklahoma through the ODEQ
Casper Refinery	State of Wyoming through the WDEQ
Sinclair Wyoming Refinery	State of Wyoming through the WDEQ

G. "Calendar quarter" shall mean the three month period ending on March 31st, June 30th, September 30th, and December 31st.

H. "Casper Refinery" shall mean the refinery owned and operated by SCRC in Casper, Wyoming.

I. "CEMS" shall mean continuous emissions monitoring system.

J. "CO" shall mean carbon monoxide.

K. "Combustion Units" shall mean the heaters and boilers at the Sinclair Refineries that are listed in Appendix B.

L. "Consent Decree" or "Decree" or "CD" shall mean this Consent Decree, including any and all appendices attached to the Consent Decree.

M. "Co-Plaintiffs" or "Plaintiff-Intervenors" shall mean ODEQ and the State of Wyoming on behalf of the WDEQ.

N. "Covered FCCUs" shall mean the following FCCU entities:

Sinclair Tulsa Refinery	Tulsa FCCU -- the FCCU owned and operated by STRC
Sinclair Casper Refinery	Casper FCCU -- the FCCU owned and operated by SCRC
Sinclair Wyoming Refinery	Sinclair Wyoming FCCU – the FCCU owned and operated by SWRC

O. "Current Generation Ultra-Low NOx Burners" shall mean those burners that are designed to achieve a NOx emission rate of 0.020 to 0.040 lb NOx/mmBTU (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.040 lb NOx/mmBTU (HHV).

P. "Date of Entry of the Consent Decree" or "Date of Entry" shall mean the date the Consent Decree is entered by the United States District Court for the District of Wyoming.

Q. "Date of Lodging of the Consent Decree" or "Date of Lodging" or "DOL" shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of Wyoming.

R. "Day" or "Days" as used herein shall mean a calendar day or days.

S. "FCCU" as used herein shall mean a fluidized catalytic cracking unit and its regenerator and associated CO boiler(s) (where present).

T. "Flaring Device" shall mean either an AG and/or an HC Flaring Device. The Flaring Devices that the Sinclair Refineries own and operate are identified in Appendix A.

U. "Fuel Oil" shall mean any liquid fossil fuel with a sulfur content of greater than 0.05% by weight.

V. "Hydrocarbon Flaring" or "HC Flaring" shall mean the combustion of refinery generated gases, except for Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas, in a Hydrocarbon Flaring Device.

W. "Hydrocarbon Flaring Device" or "HC Flaring Device" shall mean a device at the Sinclair Refineries that is used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Off Gas and/or Tail Gas. The HC Flaring Devices currently in service at the Sinclair Refineries are identified in Appendix A to the Consent Decree. To the extent that, during the duration of the Consent Decree, the Sinclair Refineries utilize HC Flaring Devices other than those specified in Appendix A for the purpose of combusting any excess of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas, those HC Flaring Devices shall be covered under this Consent Decree.

X. "Hydrocarbon Flaring Incident" or "HC Flaring Incident" shall mean the continuous or intermittent combustion of refinery-generated gases, except for Acid Gas or Sour Water Stripper Gas or Tail Gas, that results in the emission of sulfur dioxide equal to, or greater than five-hundred (500) pounds in a twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in any twenty-four (24) hour period and flaring continues into subsequent, contiguous, non-overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to or in excess of five-hundred (500) pounds of sulfur dioxide, then only one HC Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the HC Flaring Incident.

Y. "Hydrotreater Outage" shall mean the period of time during which the operation of an FCCU is affected as a result of catalyst change out operations or shutdowns required by ASME pressure vessel requirements or state boiler codes, or as a result of Malfunction, that prevents the hydrotreater from effectively producing the quantity and quality of feed necessary to achieve established FCCU emission performance.

Z. "Low NOx Combustion Promoter" shall mean a catalyst that is added to an FCCU that minimizes NOx emissions while maintaining its effectiveness as a combustion promoter.

AA. "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."

BB. "Natural Gas Curtailment" shall mean a restriction imposed by a natural gas supplier limiting any Sinclair Refinery's ability to obtain or use natural gas.

CC. "Next Generation Ultra-Low NOx Burners" or "Next Generation ULNBs" shall mean those burners that are designed to achieve a NOx emission rate of less than or equal to 0.020 lb NOx/mmBTU (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.020 lb NOx/mmBTU (HHV).

DD. "NOx" shall mean nitrogen oxides.

EE. "NOx Control System" shall mean LO TOx systems, NOx additives, SCR or other substantially equivalent technology.

FF. "NOx Additives" shall mean Low NOx Combustion Promoters and NOx Reducing Catalyst Additives.

GG. "NOx Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce NOx emissions through reduction or controlled oxidation of intermediates.

HH. "ODEQ" shall mean the Oklahoma Department of Environmental Quality and any successor departments or agencies of the State of Oklahoma.

II. "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral.

JJ. "Parties" shall mean the United States, the Co-Plaintiffs, and the Sinclair Refineries.

KK. "PEMS" shall mean predictive emissions monitoring systems developed in accordance with Appendix E to this Consent Decree.

LL. "PM" shall mean particulate matter as measured by 40 CFR Part 60, Appendix A, Method 5B or 5F.

MM. "Root Cause" shall mean the primary cause(s) of an AG Flaring Incident(s), Hydrocarbon Flaring Incident(s), or a Tail Gas Incident(s) as determined through a process of investigation.

NN. "Root Cause Analysis" shall mean a formal investigation that identifies the Root Cause and all significant contributing causes of an Acid Gas Flaring Incident, Tail Gas Incident, or Hydrocarbon Flaring Incident. The requirements for a Root Cause Analysis are set forth in Sections V.J. and K. of this Consent Decree.

OO. "Scheduled Turnaround" shall mean the shutdown of any emission unit or control equipment that is scheduled at least six months in advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end of run catalyst changeouts or refurbishments.

PP. "Sinclair Refinery(ies)" shall mean the Sinclair Tulsa Refining Company, Sinclair Wyoming Refining Company and/or Sinclair Casper Refining Company and their successors and assigns.

QQ. "Selective Catalytic Reduction" or "SCR" shall mean an air pollution control device consisting of ammonia injection and a catalyst bed to selectively catalyze the reduction of NOx with ammonia to nitrogen and water.

RR. "7-day rolling average" and "365-day rolling average" shall mean the average emission rate during the preceding 7 or 365 days (as applicable) that the emission unit was operating, calculated on a daily basis and commencing on the 7th or 365th (as applicable) day following the date on which such emission rate is effective under this Consent Decree.

SS. "Selective Noncatalytic Reduction" or "SNCR" shall mean an air pollution control device consisting of a reactant injection system using ammonia or urea to selectively reduce NOx to nitrogen and water and may include an enhanced reactant such as hydrogen.

TT. "Sinclair Wyoming Refinery" shall mean the refinery owned and operated by SWRC in Sinclair, Wyoming.

UU. "Shutdown," as specified in 40 C.F.R. Section 60.2, shall mean the cessation of operation of an affected facility for any purpose.

VV. "Sour Water Stripper Gas" or "SWS Gas" shall mean the gas produced by the process of stripping refinery sour water.

WW. "SO_2" shall mean sulfur dioxide.

XX. "SO_2 Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce SO_2 emissions by reduction and adsorption.

YY. "Startup", as specified in 40 C.F.R. Section 60.2, shall mean the setting in operation of an affected facility for any purpose.

ZZ. "Sulfur Recovery Plant" or "SRP" shall mean a process unit that recovers sulfur from hydrogen sulfide by a vapor phase catalytic reaction of sulfur dioxide and hydrogen sulfide.

AAA. "Sulfur Recovery Unit" or "SRU" shall mean a single component of a Sulfur Recovery Plant, commonly referred to as a Claus train.

BBB. "Tail Gas" shall mean exhaust gas from the Claus trains and the tail gas unit ("TGU") section of the SRP.

CCC. "Tail Gas Incident" shall mean, for the purpose of this Consent Decree, combustion of Tail Gas that either is:

(1) Combusted in a flare and results in 500 pounds or more of SO_2 emissions in any twenty-four (24) hour period; or

(2) Combusted in a thermal incinerator and results in excess emissions of 500 pounds or more of SO_2 emissions in any twenty-four (24) hour period. Only those time periods which are in excess of a SO_2 concentration of 250 ppm (rolling twelve-hour average) shall be used to determine the amount of excess SO_2 emissions from the incinerator.

DDD. "Tail Gas Unit" or "TGU" shall mean a control system utilizing a technology for controlling emissions of sulfur compounds from a Sulfur Recovery Plant.

EEE. "Torch Oil" shall mean FCCU feedstock or cycle oils that are combusted in the FCCU regenerator to assist in starting up or restarting the FCCU, to allow hot standby of the FCCU, or to maintain regenerator heat balance in the FCCU.

FFF. "Tulsa Refinery" shall mean the refinery owned and operated by STRC in Tulsa, Oklahoma.

GGG. "Upstream Process Units" shall mean all amine contactors, amine regenerators, and sour water strippers at the Sinclair Refineries, as well as all process units that produce gaseous or aqueous waste streams that are processed at amine contactors, amine scrubbers, or sour water strippers.

HHH. "WDEQ" shall mean the Wyoming Department of Environmental Quality and any successor departments or agencies of the State of Wyoming.

III. "Wet Gas Scrubber" shall mean a system for treating a gas stream to remove SO_2 and PM that consists of vessels of sufficient size that provide sufficient contact time

with a caustic assisted scrubbing liquor in a manner that provides sufficient efficiency such that emissions limits required by this Consent Decree can be met all times.

JJJ. "Refinery MACT" shall mean the regulatory program set forth at 40 C.F.R. § 63.640.

V. AFFIRMATIVE RELIEF/ENVIRONMENTAL PROJECTS

A. NOx Emissions Reductions from FCCUs.

Each of the Sinclair Refineries shall implement a program to reduce NOx emissions from the Covered FCCUs, as specified in this Section V.A., incorporate lower NOx emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of CEMs.

11. NOx Emissions Control for the Tulsa FCCU.

a. NOx Control System. STRC currently intends to control emissions from the Tulsa FCCU through the installation and operation of a NOx Control System.

b. Final NOx Limits. By no later than December 31, 2009, STRC shall comply with NOx emission limits of 20 ppmvd at 0% O_2 on a 365-day rolling average basis and 40 ppmvd at 0% O_2 on a 7-day rolling average basis at the Tulsa FCCU. For purposes of clarity, the first 365-day compliance demonstration date shall be December 31, 2010

12. NOx Emissions Control for the Sinclair FCCU.

a. NOx Control System. SWRC currently intends to control emissions from the Sinclair FCCU through the installation of hydrotreater technology and the use of NOx Additives.

b. NOx Limits. By no later than March 31, 2010, SWRC shall comply with NOx emission limits of 40 ppmvd at 0% O_2 on a 365-day rolling average basis and 80 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair FCCU. For purposes of clarity, the first 365-day compliance date shall be March 31, 2011.

13. NOx Emissions Control for the Casper FCCU.

a. NOx Control System. SCRC currently intends to control emissions from the Casper FCCU through the installation of hydrotreater technology and use of NOx Additives.

b. Final NOx Limits. By no later than December 31, 2009, SCRC shall comply with NOx emission limits of 50 ppmvd at 0% O_2 on a 365-day rolling average basis and 100 ppmvd at 0% O_2 on a 7-day rolling average basis at the Casper FCCU. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

14. Alternate NOx Emission Limits for Casper and Sinclair FCCUs.

a. In lieu of the emissions limits in paragraphs 12(b) and 13(b), the SWRC and SCRC may accept emission limits of 20 ppmvd at 0% O_2 on a 365-day rolling average basis 40 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair and/or Casper FCCUs to be achieved by December 31, 2012.

b. If either SCRC or SWRC accepts the alternate NOx emission limit set forth in Paragraph 14(a), the relevant Sinclair Refining Company shall give notice to EPA and Wyoming of its acceptance of such limits no later than June 30, 2009.

15. NOx emissions during periods of startup, shutdown, or Malfunction of an FCCU, or during periods of Malfunction of the relevant FCCU's NOx Control System, will not be used in determining compliance with the 7-day average NOx emission limits established pursuant to Paragraphs 11-14, provided that during such periods the Sinclair Refineries implement good air pollution control practices to minimize NOx emissions. Nothing in this Paragraph shall be construed to relieve the Sinclair Refining Companies of any obligation under any federal or state law, regulation, or permit to report emissions during periods of startup, shutdown, or Malfunction, or to document the occurrence and/or cause of a startup, shutdown, or Malfunction event.

16. Demonstrating Compliance with FCCU NOx Emission Limits. Beginning no later than the dates set forth below for each of the following FCCUs, the Sinclair Refining Companies will use NOx and O_2 CEMS to monitor performance of the FCCU.

FCCU	CEMS
Tulsa	December 31, 2009
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective NOx emission limits established pursuant to this Section V.A. of this Consent Decree. Upon reasonable demand, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refining Companies will install, certify, calibrate, maintain and operate all CEMS required by this Paragraph 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 Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. Unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the Sinclair Refineries must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refining Companies must also conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

17. Reserved.

18. Reserved.

B. SO_2 Emissions Reductions from FCCUs.

The Sinclair Refining Companies will implement a program to reduce SO_2 emissions from the Covered FCCUs, as specified in this Section V.B., below, incorporate lower SO_2 emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of CEMs.

19. Installation and Operation of Wet Gas Scrubber at the Tulsa FCCU. By no later than December 31, 2009, STRC will complete installation and begin operation of a Wet Gas Scrubber ("WGS") at the Tulsa FCCU. Also on December 31, 2009, STRC will comply with the SO_2 concentration limit of 25 ppmvd at the Tulsa FCCU on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each corrected to 0% O_2. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

20. SO_2 Control System at the Sinclair FCCU.

a. SWRC presently intends to control SO_2 emissions from the Sinclair FCCU through the installation and operation of a high pressure hydrotreater and SO_2 Reducing Catalyst Additives.

b. Final SO_2 Limits. By no later than December 31, 2009, SWRC shall comply with SO_2 emission limits of 25 ppmvd at 0% O_2 on a 365-day rolling average basis and 50 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair FCCU. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

21. SO_2 Control System at the Casper FCCU.

a. SCRC presently intends to control SO_2 emissions from the Casper FCCU through the installation and operation of a high pressure hydrotreater and/or SO_2 Reducing Catalyst Additives.

b. Final SO_2 Limits. By no later than December 31, 2009, SCRC shall comply with SO_2 emission limits of 50 ppmvd at 0% O_2 on a 365-day rolling average basis and 100 ppmvd at 0% O_2 on a 7-day rolling average basis at the Casper FCCU. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

22. SO_2 emissions during periods of startup, shutdown, or Malfunction of an FCCU controlled by catalyst additives, or during periods of Malfunction of an FCCU controlled by a WGS, or during periods of Malfunction of a WGS or SO_2 Reducing Catalyst Additive system will not be used in determining compliance with the 7-day average SO_2 emission limits

established pursuant to Paragraphs 19-21, provided that during such periods the Sinclair Refineries implement good air pollution control practices to minimize SO_2 emissions.

23. Demonstrating Compliance with FCCU SO_2 Emission Limits. Beginning no later than the dates set forth below for each of the following FCCUs, the Sinclair Refineries will use SO_2 and O_2 CEMS to monitor performance of the FCCU.

FCCU	CEMS
Tulsa	December 31, 2009
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective SO_2 emission limits established pursuant to this Section V.B. Upon reasonable request from EPA, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refineries will install, certify, calibrate, maintain, and operate all CEMS required by this Paragraph 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 Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. Unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the Sinclair Refineries must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refineries must also conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

24. Hydrotreater Outages. For the following FCCUs, by the following dates, the Sinclair Refineries will submit to EPA for approval, with a copy to the Applicable Co-Plaintiff, a plan for the operation of the FCCUs (including associated air pollution control equipment) during Hydrotreater Outages in a way that minimizes emissions as much as practicable.

FCCU	Date

Sinclair	Later of December 31, 2007 or 30 days after lodging
Casper	Later of December 31, 2007 or 30 days after lodging

The plan will, at a minimum, consider the use of low sulfur feed, storage of hydrotreated feed, and an increase in additive addition rate. The 7-day average SO_2 emission limits established pursuant to this Consent Decree at the Sinclair FCCU and the Casper FCCU will not apply during periods of FCCU feed Hydrotreater Outages provided that SWRC and SCRC are in compliance with the hydrotreater outage plan and are maintaining and operating their FCCUs in a manner consistent with good air pollution control practices.

C. PM Emissions Reductions from FCCUs.

25. The Sinclair Refineries will implement a program to reduce PM emissions from the Covered FCCUs, as specified in this Section V.C., incorporate lower PM emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of PM testing.

26. PM Emission Limits for the Tulsa FCCU. STRC will design the wet gas scrubber at the Tulsa FCCU to achieve an emission limit of no greater than 0.5 pound PM per 1000 pounds of coke burned on a 3 hour average basis. By no later than December 31, 2009, STRC will begin to comply with an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average basis at the Tulsa FCCU, as determined by the testing protocol in Paragraph 30.

27. PM Emission Limits for the Sinclair and Casper FCCUs. Consistent with the NSPS regulations at 40 C.F.R., Part 60, Subpart J, SWRC and SCRC shall comply with an emission limit of 1.0 pounds of PM per 1000 pounds of coke burned for the FCCUs listed below by the dates listed below:

FCCU	Date
Sinclair	December 31, 2009
Casper	Date of Entry

28. NSR Emission Limits for PM for the Tulsa, Sinclair and Casper FCCUs. At any time during the term of the Consent Decree, any of the Sinclair Refineries may accept a Final

PM Limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis. For any of the Sinclair Refineries that accept such a limitation, liability for potential NSR violations for PM emissions from the relevant FCCU shall be resolved pursuant to Paragraph 316, provided that such limits are incorporated into an appropriate permit under Paragraph 180-181.

29. PM emissions during periods of startup, shutdown or Malfunction of the FCCU, or during periods of Malfunction of a wet gas scrubber or ESP will not be used in determining compliance with the 3-hour average emission limits set forth in this Section V.C., provided that the Sinclair Refinery undergoing startup, shutdown or Malfunction implements good air pollution control practices to minimize PM emissions during such periods.

30. Demonstrating Compliance with PM Emission Limits Set Forth in Section V.C. and V.E. The Sinclair Refineries will follow the test methods specified in 40 C.F.R. § 60.106(b)(2) to measure PM emissions from the FCCUs. The Sinclair Refineries will conduct the first test no later than six (6) months after the PM limit becomes effective at an FCCU. The Sinclair Refineries will conduct annual tests at each FCCU no later than October 31st of each year and will submit the results in the first semi-annual report due under Part IX that is at least three (3) months after the test. Upon demonstrating through at least three (3) annual tests that the PM limits are not being exceeded at a particular FCCU, each Sinclair Refinery may request EPA approval to conduct tests less frequently than annually at that FCCU.

D. CO Emissions Reductions from FCCUs

31. CO Emissions Limits for the FCCUs. By no later than the following dates for the following FCCUs, the Sinclair Refineries will comply with the following CO emission limits:

FCCU	500 ppmvd 1-hour average at 0% oxygen
Tulsa	Date of Entry
Sinclair	Date of Entry
Casper	Date of Entry

32. NSR Emission Limits for CO for FCCUs. At any time during the term of the Consent Decree, any of the Sinclair Refineries may accept a Final CO Limit of 100 ppmvd on a 365-day rolling average basis at 0% O_2 for its FCCU. For any of the Sinclair Refineries that accept such a limitation, liability for potential NSR violations for CO emissions from the relevant FCCU shall be resolved pursuant to Paragraph 317, provided that such limits are incorporated into an appropriate permit under Paragraph 180-181.

33. CO emissions during periods of startup, shutdown or Malfunction of the FCCU will not be used in determining compliance with the emission limits of 500 ppmvd CO at 0% O_2 on a 1-hour average basis, provided that the Sinclair Refinery undergoing startup, shutdown or Malfunction implements good air pollution control practices to minimize CO emissions during such periods.

34. Demonstrating Compliance with CO Emission Limits. Beginning no later than the dates set forth below for each FCCU, the Sinclair Refineries will use CO and O_2 CEMS to monitor performance of the FCCU:

FCCU	CEMS
Tulsa	Later of December 31, 2007 or Date of Entry
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective CO emission limits established pursuant to this Section V.D. Upon reasonable request by EPA, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refineries will install, certify, calibrate, maintain and operate all CEMS required by this Paragraph 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 Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. For the Tulsa Refinery only, unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the STRC

must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refineries must also conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

E. NSPS Applicability of FCCU Catalyst Regenerators.

35. The following FCCU catalyst regenerators will be "affected facilities," as that term is used in the Standards of Performance for New Stationary Sources ("NSPS"), 40 C.F.R. Part 60, and will be subject to and comply with the requirements of NSPS Subparts A and J for each of the following pollutants by the following dates:

	SO_2	PM	CO
Tulsa	December 31, 2009	December 31, 2009	Later of 12/31/2007 or Date of Entry
Sinclair	December 31, 2009	December 31, 2009	Date of Entry
Casper	December 31, 2009	Date of Entry	Date of Entry

36. Reserved.

37. Opacity Monitoring at the FCCUs. By no later than the following dates, the Sinclair Refineries will install and operate a Continuous Opacity Monitoring System ("COMS") to monitor opacity at each of the following FCCUs:

FCCU	COMS
Sinclair	Date of Entry
Casper	Date of Entry
Tulsa	Date of Entry

The Sinclair Refineries will install, certify, calibrate, maintain and operate all COMS required by this Consent Decree in accordance with 40 C.F.R §§ 60.11, 60.13 and Part 60 Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

38. As an alternative to the requirement to install and or operate a COMS under Paragraph 37, the Sinclair Refineries may request from EPA an AMP to demonstrate compliance

with the NSPS opacity limits at 40 C.F.R. § 60.105(a)(1) for those FCCUs which have wet gas scrubbers. If approved by EPA, after an opportunity for consultation with the Applicable Co-Plaintiff, the Sinclair Refineries may utilize the AMP in lieu of a COMS. If the Sinclair Refineries seek to rely on an AMP previously approved by EPA, EPA shall not unreasonably withhold approval of the Sinclair Refineries' use of such AMP.

39. For FCCU Catalyst Regenerators that become affected facilities under NSPS Subpart J pursuant to Paragraph 35, entry of this Consent Decree and compliance with the relevant monitoring requirements of this Consent Decree for FCCUs will satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

F. NOx Emissions Reductions from Combustion Units

40. The Sinclair Refineries will implement a program to reduce and monitor NOx emissions from the Combustion Units in Appendix B through the implementation of the provisions of this Section V.F.

41. Installation of Qualifying Controls for NOx Emissions from Combustion Units. The Sinclair Refineries will select one or any combination of the following "Qualifying Controls" to satisfy the requirements of Paragraphs 42, 45, and 46:

(a) SCR or SNCR;

(b) Current Generation or Next Generation Ultra-Low NOx Burners;

(c) Other technologies that the Sinclair Refineries demonstrate to EPA's satisfaction will reduce NOx emissions to 0.040 lbs per mmBTU or lower; or

(d) Permanent shutdown of a Combustion Unit with surrender of its operating permit; provided however, that to the extent that the emissions reductions resulting from the permanent shutdown are used to satisfy the requirements of Paragraphs 42, 45 and 46, those reductions may not be used as reductions for the construction of new units or the modification of existing units permitted collectively as a single project with the shutdown, notwithstanding the provisions of Paragraph 192(d).

42. On or before December 31, 2010, the Sinclair Refineries will use Qualifying Controls to reduce NOx emissions from the Combustion Units listed in Appendix B by at least 838 tons per year, so as to satisfy the following inequality:

$$\sum_{i=1}^{n} [(E_{actual})i - (E_{allowable})i] \geq 838 \text{ tons of NOx per year}$$

Where:

$(E_{allowable})i$	=	[(The permitted allowable pounds of NOx per million BTU for Combustion Unit i, or, the requested portion of the permitted reduction pursuant to Paragraph 192(c))/(2000 pounds per ton)] x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for Combustion Unit i) x (the lower of 8760 or permitted hours per year)];
$(E_{actual})i$	=	The tons of NOx per year prior actual emissions during the refinery baseline years (unless prior actual emissions exceed allowable emissions, then use allowable) as shown in Appendix B for each Combustion Unit i listed in Appendix B; and
n	=	The number of Combustion Units with Qualifying Controls from those listed in Appendix B that are selected by the Sinclair Refineries to satisfy the requirements of the equation set forth in this Paragraph.

For purposes of this Paragraph and for demonstrating compliance with this Section V.F., "permitted allowable" in the term $(E_{allowable})i$ above, shall be the NOx emission limit for each Combustion Unit which is the least of the following: (i) the NOx emission limit, in pounds per MMBTU at HHV (as a 365-day rolling average if based on CEMS, or as a 3-hour average if based on stack tests) based upon any existing federally enforceable permit condition in a permit that meets the requirements Paragraph 181; or (ii) the NOx emission limit, in pounds per MMBTU at HHV, reflected in any permit application for a federally enforceable permit that meets the requirements of Paragraph 181 that is submitted by the Sinclair Refineries for such Combustion Unit prior to December 31, 2008 (for compliance with Paragraph 45) or December 31, 2010 (for compliance with Paragraph 42). In the event the Sinclair Refineries identify a NOx emission limit based on a limit then reflected in a pending permit application,

they shall not withdraw such application nor may they seek to modify that application to increase the NOx emission limit reflected in such application without prior EPA approval.

43. Appendix B. Appendix B to this Decree provides the following information for the Combustion Units:

(a) The maximum physical heat input capacity in mmBTU/hr (HHV);

(b) The allowable heat input capacity in mmBTU/hr (HHV), if different from the maximum physical heat input capacity;

(c) The baseline emissions rate for the agreed-upon baseline calendar years in lb/mmBTU (HHV) and tons per year;

(d) The type of data used to derive the emissions estimate (*i.e.*, emission factor, stack test, or CEMS data); and

(e) The utilization rate in annual average mmBTU/hr (HHV) for the agreed upon baseline calendar years.

44. NOx Control Plan. Appendix C sets forth the combustion units that the Sinclair Refineries currently intend to control to achieve the NOx emission reductions required by this Section. The Sinclair Refineries will submit a detailed NOx control plan ("NOx Control Plan") to EPA for review and comment by no later than Date of Entry, with annual updates (covering the prior calendar year) on March 31, 2009 and on March 31 of each year thereafter until termination of the Consent Decree. Copies of the NOx Control Plans will be submitted to the Applicable Co-Plaintiff. The NOx Control Plan and its updates will describe the achieved and anticipated progress of the NOx emissions reductions program for the Combustion Units and will contain the following information for each Combustion Unit that the Sinclair Refineries plan to use to satisfy the requirements of Paragraphs 42, 45 and/or 46:

(a) All of the information in Appendix B;

(b) Identification of the type of Qualifying Controls installed or planned with date installed or planned (including identification of the Combustion Units to be permanently shut down);

(c) To the extent limits exist or are planned, the allowable NOx emission rates (in lbs/mmBTU (HHV), with averaging period) and allowable heat input rate (in mmBTU/hr (HHV)) obtained or planned with dates obtained or planned;

(d) The results of emissions tests, and annual average CEMS or PEMs data (in ppmvd at 3% O_2, lbs/mmBTU) conducted pursuant to Paragraph 48; and

(e) The amount in tons per year applied or to be applied toward satisfying Paragraph 42.

The Control Plan required by this Paragraph will be for informational purposes only and may contain estimates. They will not be used to develop permit requirements or other operating restrictions. The Sinclair Refineries may change any projections, plans, or information that is included in the Control Plan or updates. Nothing in this Paragraph will affect any requirements for the development or submission of a NOx control plan pursuant to otherwise applicable state or local law.

45. By December 31, 2008, the Sinclair Refineries will install sufficient Qualifying Controls and have applied for emission limits from the appropriate permitting authority sufficient to achieve 80% of the NOx emission reductions required by Paragraph 42. By no later than March 31, 2009, the Sinclair Refineries will provide EPA and the Applicable Co-Plaintiff with a report demonstrating compliance with the requirements of this Paragraph.

46. By no later than December 31, 2010, Combustion Units with Qualifying Controls will represent at least 30% of the total maximum heat input capacity or, if less, the allowable heat input capacity, as shown in Appendix B, of all of the Combustion Units located at the Sinclair Tulsa and the Sinclair Wyoming Refineries, which shall include 581 Crude Heater Number 2 at the Sinclair Wyoming Refinery. The SCRC shall install Qualifying Controls on the Casper Refinery Number 5 Crude Heater and F202 Feed Heater (FCC) by December 31, 2008. Any Qualifying Controls can be used to satisfy this requirement, regardless of when the Qualifying Controls were installed.

47. By no later than six months after Date of Entry, the STRC shall submit an application to amend the operating permit at Tulsa to permanently shut down the CRU Splitter Reboiler.

48. Beginning no later than one hundred eighty (180) days after installing Qualifying Controls on and commencing operation of a Combustion Unit that will be used to satisfy the

requirements of Paragraphs 42 and 45, the Sinclair Refineries will monitor the Combustion Units as follows:

(a) For Combustion Units with a maximum physical capacity greater than 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS;

(b) For Combustion Units with a maximum physical capacity greater than 100 mmBTU/hr (HHV) but less than or equal to 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS, or monitor NOx emissions with a PEMS developed and operated pursuant to the requirements of Appendix E of this Consent Decree;

(c) For Combustion Units with a maximum physical capacity of less than or equal to 100 mmBTU/hr (HHV), conduct an initial performance test and any periodic tests that may be required by EPA or by the applicable State or local permitting authority under other applicable regulatory authority. The results of the initial performance testing will be reported to EPA and the Applicable Co-Plaintiff; and

(d) For purposes of demonstrating compliance with paragraph 42, if a Sinclair Refinery installs Qualifying Controls on one or more Combustion Units that exhausts through a common stack, that Sinclair Refinery shall apportion the reduction in monitored emissions at the common stack to each such unit based on heat input of each unit, in accordance with an alternative monitoring plan submitted to EPA and the applicable state.

The Sinclair Refineries will use Method 7E or an EPA-approved alternative test method, in conjunction with Method 19, to conduct initial performance testing for NOx emissions required by subparagraph (c) of this Paragraph. Monitoring with a PEMS required by this Paragraph will be conducted in accordance with the requirements of Appendix E. Units with Qualifying Controls installed before the Date of Entry that are subject to this Paragraph will comply with this Paragraph by no later than the latter of 6 months after the Date of Entry or December 31, 2007.

49. The Sinclair Refineries will certify, calibrate, maintain and operate the NOx CEMS required by Paragraph 48 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 Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

50. The requirements of this Section V.F. do not exempt the Sinclair Refineries from complying with any and all federal and state requirements that may require technology, equipment, monitoring or other upgrades based on actions or activities occurring after the Date of Lodging of this Consent Decree, or based upon new or modified regulatory, statutory or permit requirements.

51. The Sinclair Refineries will retain all records required to support their reporting requirements under this Section V.F. until termination of the Consent Decree. Upon reasonable request by EPA, the Sinclair Refineries will submit such records to EPA and the Applicable Co-Plaintiff as soon as practical.

52. If any of the Sinclair Refineries transfer ownership of any refinery before achieving all of the NOx reductions required by Paragraph 42, the transferring refinery will notify EPA and the Applicable Co-Plaintiff of that transfer and will submit an allocation to EPA and the Applicable Co-Plaintiff for that refinery's share of NOx reduction requirements of Paragraph 42 that will apply individually to the transferred refinery after such transfer.

G. SO_2 Emissions Reductions from and NSPS Applicability to Heaters and Boilers.

53. The Sinclair Refineries shall undertake measures to reduce SO_2 emissions from refinery heaters and boilers and other specified equipment by restricting H_2S in refinery fuel gas and by agreeing not to burn Fuel Oil except as specifically permitted under the provisions set forth herein.

54. NSPS Applicability to Heaters and Boilers and Other Specified Equipment.

a. Upon the Date of Entry, all heaters, boilers and fuel gas combustion devices at the Tulsa, Sinclair Wyoming, and Casper Refineries shall be affected facilities under NSPS Subpart J and shall comply with the applicable requirements of NSPS Subparts A and J for fuel gas combustion devices, except for those heaters and boilers listed in Appendix D, which shall be affected facilities and shall be subject to and comply with the applicable requirements of NSPS Subparts A and J for fuel gas combustion devices by the dates listed in Appendix D.

b. Reserved.

c. Where Appendix D specifies an alternative monitoring plan ("AMP") submittal date (rather than a final NSPS Subpart J compliance date), the Sinclair Refineries shall submit to EPA and the Applicable Co-Plaintiff a timely and complete AMP application. Such an AMP may be based on alternative monitoring for H_2S or SO_2. If an AMP is not approved, the Sinclair Refineries shall within ninety (90) days of the Sinclair Refineries receiving notice of such disapproval submit to EPA for approval, with a copy to the appropriate Co-Plaintiff, a plan and schedule that provide for compliance with the monitoring requirements of NSPS Subpart J as soon as practicable. Such plan may include a revised AMP application, physical or operational changes to the equipment, or additional or different monitoring.

d. For heaters and boilers that combust low-flow VOC streams from vents, pumpseals, and other sources, it is anticipated that some of the AMP applications will rely in part on calculating a weighted average H_2S concentration of all VOC and fuel gas streams that are burned in a single heater or boiler and demonstrating with alternative monitoring that either the SO_2 emissions from the heater or boiler will not exceed 20 ppm or that the weighted average H_2S concentration is not likely to exceed 162 ppm H_2S. EPA shall not reject an AMP solely due to the AMP's use of one of these approaches to demonstrating compliance with NSPS Subpart J.

e. For heaters, boilers and other equipment used as fuel gas combustion devices that become affected facilities under NSPS Subpart J pursuant to this Paragraph 54, entry of this Consent Decree and compliance with the relevant monitoring requirements of this Consent Decree shall satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

55. To the extent that the Sinclair Refineries seek to use an alternative monitoring method at a particular fuel gas combustion device to demonstrate compliance with the limits at 40 C.F.R. § 60.104(a)(1), the Sinclair Refineries may begin to use the method immediately upon submitting the application for approval to use the method, provided that the alternative method for which approval is being sought is the same as or is substantially similar to the method identified as the "Alternative Monitoring Plan for NSPS Subpart J Refinery Fuel Gas" attached to EPA's December 2, 1999, letter to Koch Refining Company LP.

56. Elimination/Reduction of Fuel Oil Burning.

a. Existing Combustion Devices. From the Date of Lodging of this Consent Decree, the Sinclair Refineries will not burn Fuel Oil in any existing combustion device at the Covered Refineries except: (i) at the Sinclair Tulsa Refinery, during periods of Natural Gas Curtailment, Test Runs, or operator training; or (ii) at Sinclair Wyoming and Sinclair Casper Refineries, as set forth in Paragraph 57. Nothing in this prohibition limits the Sinclair Refineries' ability to burn Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.

b. Combustion Devices Constructed After Lodging. After the Date of Lodging, the Sinclair Refineries will not construct any new combustion device that burns fuel oil unless the air pollution control equipment controlling the combustion device either (i) has an SO_2 control efficiency of 90% or greater; or (ii) achieves an SO_2 concentration of 20 ppm at 0% O_2 or less on a three-hour rolling average basis. Nothing in this Paragraph will exempt the Sinclair Refineries from securing all necessary permits before constructing a new combustion device.

57. Reduction of Fuel Oil Burning at the Sinclair and Casper Refineries.

a. Commencing on the Date of Entry or January 1, 2008, whichever is earlier, the SWRC will limit Fuel Oil burning at the Sinclair Wyoming Refinery such that total SO_2 emission resulting from fuel oil burning will be no greater than 200 tons per year on a 365 day rolling average basis. Commencing on December 31, 2010, the SWRC will limit Fuel Oil burning at the Sinclair Wyoming Refinery such that total SO_2 emissions resulting from fuel oil burning will be no greater than 55 tons per year on a 365 day rolling average basis.

b. Commencing on December 31, 2008, the SCRC will limit Fuel Oil burning at the Casper Refinery such that total SO_2 emission resulting from fuel oil burning will be no greater than 188 tons per year on a 365-day rolling average basis. Fuel Oil combusted during periods of Natural Gas Curtailment will not be counted in the 365-day rolling average.

c. Compliance with paragraphs a. and b. above will be determined for each refinery on a daily basis by the following the equation:

$$\sum_{i=1}^{n} [\ (DRFOi \times FODi \times (SCi/100) \times 2)/2000i] \leq \text{the limit in tons of } SO_2 \text{ per year}$$

Where:

DRFOi = the amount of fuel oil combusted at the refinery for day i in gallons per day;

FODi = the average density of fuel oil combusted at the refinery for day i in pounds per gallon;

SCi = the average sulfur content of the oil combusted at the refinery for day i in weight percent sulfur; and

n = the prior 365 calendar days.

In demonstrating compliance with this Paragraph, the SWRC and the SCRC shall measure and retain records of the following for each day on which fuel oil is combusted: amount of fuel oil combusted (weight and volume), density, sulfur content and method of determining the amount of fuel oil combusted.

58-65. Reserved.

H. Sulfur Recovery Plants

66. Description of Sulfur Recovery Plants. Claus Sulfur Recovery Plants ("SRPs") are owned and operated by the Sinclair Refineries.

a. Tulsa SRP: The SRP at the Sinclair Tulsa Refinery ("Tulsa SRP") consists of two 3-stage Claus trains each followed by a dedicated tail gas incinerator and caustic scrubber that serves as a tail gas treater.

b. Sinclair SRP: The SRP at the Sinclair Wyoming Refinery ("Sinclair SRP") consists of two 3-stage Claus trains. There is a common tail gas incinerator and caustic scrubber tail gas treater for both 3-stage Clause trains. SWRC currently is constructing a new Sulfur Complex consisting of two parallel trains, each train consisting of a 3-stage Claus unit, incinerator and amine based tail gas treater, scheduled to be installed by June 30, 2008. The new

sulfur complex and existing sulfur complex network is designed to allow the processing of rich amine streams generated throughout the refinery at any of the SRU/incineration/tail gas treater systems.

c. Casper SRP: The SRP at the Sinclair Casper Refinery ("Casper SRP") consists of one 3-stage Claus train with a tail gas incinerator and a caustic scrubber as the Tail Gas Unit ("TGU").

67. Sulfur Recovery Plants and NSPS Applicability.

a. Sinclair Tulsa SRP. The Sinclair Tulsa SRP, consisting of two Claus trains, is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

b. Sinclair Wyoming SRP. The Sinclair Wyoming SRP is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

c. Sinclair Casper SRP. The Sinclair Casper SRP is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

68. Sulfur Recovery Plants and NSPS Compliance. As of the Date of Entry, the Tulsa, Sinclair Wyoming, and Casper SRPs shall comply with all applicable provisions of NSPS set forth at 40 C.F.R. Part 60, Subparts A and J, including, but not limited to, the following:

a. Emission limit. The STRC, SWRC and SCRC shall, for all periods of operation of the SRPs, comply with 40 C.F.R. § 60.104(a)(2) at each SRP except during periods of Startup, Shutdown or Malfunction of the respective SRP, or during a Malfunction of a TGU serving as a control device for the SRP. For the purpose of determining compliance with the Sulfur Recovery Plant emission limits of 40 C.F.R. § 60.104(a)(2), the "Startup/Shutdown" provisions set forth in NSPS Subpart A shall apply to each SRP and not to the independent start-up or shutdown of a TGU serving as a control device for the SRP. However, the Malfunction exemption set forth in NSPS Subpart A shall apply to each SRP and to the TGU serving as the control device for the SRP.

b. Monitoring. The STRC, SWRC, and SCRC shall monitor all TGU emissions points (*i.e.*, stacks and incinerators) to the atmosphere for tail gas emissions and shall monitor and report excess emissions from each of these SRPs as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105(a)(5), (6) or (7). During the life of this Consent Decree, the STRC, SWRC, and SCRC shall conduct emissions monitoring from these SRPs with CEMS at all of the emission points, unless an SO_2 alternative monitoring procedure has been approved by EPA, per 40 C.F.R. § 60.13(i), for any of the emission points. The requirement for continuous monitoring of the SRP emission points is not applicable to the Acid Gas Flaring Devices used to flare the Acid Gas or Sour Water Stripper Gas diverted from the SRPs.

69. Sulfur Pit Emissions. The SCRC and the SWRC shall continue to route all sulfur pit emissions at the Casper and Sinclair Refineries, respectively, so that they are eliminated, controlled, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart J limit for SO_2, 40 C.F.R. § 60.104(a)(2). By no later than six months after the Date of Entry, the STRC shall route all sulfur pit emissions at the Tulsa Refinery so that they are eliminated, controlled, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart J limit for SO_2, 40 C.F.R. § 60.104(a)(2).

70. Preventive Maintenance and Operation Plans.

a. By no later than December 31, 2007 or 90 days after entry, the Sinclair Refineries shall submit to EPA and the appropriate Co-Plaintiff a summary of the plans, implemented or to be implemented, for the enhanced operation and maintenance of the Sinclair Refineries' SRPs, their associated TGUs, any supplemental control devices and the Upstream Process Units for each Refinery. This plan shall be termed a Preventive Maintenance and Operation Plan ("PMO Plan"). The PMO Plan shall be a compilation of the Sinclair Refineries' approach for exercising good air pollution control practices and for minimizing SO_2 emissions from sulfur processing and other production processes at these refineries. PMO Plans shall have as their goals the elimination of Acid Gas Flaring and the operation of SRPs between Scheduled Maintenance turnarounds with minimization of emissions. The PMO Plan shall include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures of SRP's, control devices and Upstream Process Units, emergency procedures and schedules to coordinate

maintenance turnarounds of the SRP Claus trains and any control device to coincide with scheduled turnarounds of major Upstream Process Units. The Sinclair Refineries shall implement the PMO Plans at all times, including periods of Startup, Shutdown and Malfunction of its SRPs. Changes to a PMO Plan related to minimizing Acid Gas Flaring and/or SO_2 emissions shall be summarized and reported by the Sinclair Refineries to EPA and the appropriate Co-Plaintiff in the semi-annual report required under Part IX.

b. EPA, ODEQ or WDEQ do not, by their review of a PMO Plan and/or by their failure to comment on a PMO Plan, warrant or aver in any manner that any of the actions that the Sinclair Refineries may take pursuant to such PMO Plan will result in compliance with the provisions of the Clean Air Act or any other applicable federal, state, or local law or regulation. Notwithstanding the review by EPA or any state agency of a PMO Plan, the Sinclair Refineries shall remain solely responsible for compliance with the Clean Air Act and such other laws and regulations.

71-73. Reserved.

I. Flares and NSPS

74. Good Air Pollution Control Practices. On and after the Date of Entry, the Sinclair Refineries shall at all times and to the extent practicable, including during periods of startup, shutdown and/or Malfunction, implement good air pollution control practices to minimize emissions from their Flaring Devices consistent with and as required by 40 C.F.R. § 60.11(d). The Sinclair Refineries shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all such incidents in accordance with the procedures in Paragraph 94.

75. Flaring Devices and NSPS Applicability: The Sinclair Refineries own and operate the Flaring Devices identified in Appendix A. By the dates set forth in subsections 75(a) – (c) below, each such Flaring Device shall be an "affected facility" (as that term is used in NSPS, 40 C.F.R. Part 60) and shall comply with all applicable requirements of 40 C.F.R. Part 60, Subparts A and J, for fuel gas combustion devices used as emergency control devices for quick and safe release of combustible gases.

a. By the Date of Entry the SCRC shall meet the NSPS Subparts A and J requirements for each Flaring Device at the Sinclair Casper Refinery, by using one or any combination of the following methods:

(1) Design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device.

(2) Eliminate the routing of continuous or intermittent, routinely-generated refinery fuel gases to a Flaring Device and operate the Flaring Device such that it only receives process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or

(3) Operate the Flaring Device as a fuel gas combustion device and comply with NSPS monitoring requirements by the use of a CEMS pursuant to 40 C.F.R. § 60.105(a)(4) or with a parametric monitoring system approved by EPA as an alternative monitoring system under 40 C.F.R. § 60.13(i).

The Parties recognize that periodic maintenance may be required for properly designed and operated flare gas recovery systems. The Sinclair Refineries shall take all reasonable measures to minimize emissions while such periodic maintenance is being performed. The Parties also recognize that under certain conditions, a flare gas recovery system may need to be bypassed in the event of an emergency or in order to ensure safe operation of refinery process. Nothing in this Consent Decree precludes the Sinclair Refineries from temporarily bypassing a flare gas recovery system under such circumstances.

b. As soon as practicable, and no later than December 31, 2008, the SWRC shall design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device. Until SWRC's flare gas recovery system is installed and operational, SWRC (1) shall continue to operate its process units in a manner to minimize the concentration of H_2S in continuous or routine streams going to the flare; (2) shall not undertake any new projects that will generate streams or that will increase the H_2S concentration in existing streams vented to the flare; and (3) will continue to operate in compliance with 40 C.F.R. § 60.18.

c. By December 31, 2009, the STRC shall design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device.

d. Within 180 days after bringing a Flaring Device into compliance with NSPS Subparts A and J, the Sinclair Refineries shall conduct a flare performance test pursuant to 40 C.F.R. §§ 60.8 and 60.18, or an EPA-approved equivalent method. In lieu of conducting the velocity test required in 40 C.F.R. § 60.18, the Sinclair Refineries may submit velocity calculations which demonstrate that the Flaring Device meets the performance specification required by 40 C.F.R. § 60.18. The Sinclair Refineries may utilize its demonstration of compliance with Refinery MACT I if such provides substantially equivalent assurance of NSPS compliance, as may then be determined by EPA after an opportunity for consultation with the Appropriate Co-Plaintiff.

76. Compliance with the Emission Limit at 40 C.F.R. § 60.104(a)(1).

a. Continuous or Intermittent, Routinely-Generated Refinery Fuel Gases. For continuous or intermittent, routinely-generated refinery gases that are combusted in any Flaring Device, the Sinclair Refineries shall comply with the emission limit at 40 C.F.R. § 60.104(a)(1).

b. Non-Routinely Generated Gases. The combustion of gases generated by the Startup, Shutdown, or Malfunction of a refinery process unit or released to a Flaring Device as a result of relief valve leakage or other emergency malfunction are exempt from the requirement to comply with 40 C.F.R. § 60.104(a)(1).

J. Control of Acid Gas Flaring and Tail Gas Incidents

77. Past Acid Gas Flaring Analysis. By no later than six months after the Date of Entry, the Sinclair Refineries will provide a description of the causes of Acid Gas Flaring at each Refinery for each Acid Gas Flaring Incident that occurred from January 1, 2003 through the Date of Entry, including but not limited to:

(a) The date and time that the AG Flaring Incident started and ended (if available or reasonably determinable);

(b) An estimate of the quantity of sulfur dioxide emitted and the calculations used to determine that quantity (if available or reasonably determinable); and

(c) A description of the Root Cause and corrective actions, if any, that were taken to reduce the likelihood of a recurrence of such AG Flaring Incident (if available or reasonably determinable).

78. Future Acid Gas Flaring and Tail Gas Incidents: The Sinclair Refineries shall investigate the cause of future Acid Gas Flaring and Tail Gas Incidents under Paragraph 79 and take corrective action as set forth in Paragraph 80.

79. Investigation and Reporting. No later than forty-five (45) days following the end of an Acid Gas Flaring Incident occurring on and after the Date of Entry, the Sinclair Refineries shall submit to EPA and the appropriate Co-Plaintiff a Root Cause Analysis report that sets forth the following:

(a) The date and time that the Acid Gas Flaring Incident started and ended. To the extent that the Acid Gas Flaring Incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, the Sinclair Refineries shall set forth the starting and ending dates and times of each release;

(b) An estimate of the quantity of sulfur dioxide that was emitted and the calculations that were used to determine that quantity;

(c) The steps, if any, that the Sinclair Refineries took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Acid Gas Flaring Incident;

(d) A detailed analysis that sets forth the Root Cause and all significant contributing causes of that Acid Gas Flaring Incident, to the extent determinable;

(e) An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or significant contributing causes in the future. If two or more reasonable alternatives exist to address the Root Cause, the analysis shall discuss the alternatives, if any, that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation and maintenance changes shall be evaluated. If the Sinclair Refineries concludes that corrective action(s) is (are) required

under Paragraph 80, the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If the Sinclair Refineries conclude that corrective action is not required under Paragraph 80, the report shall explain the basis for that conclusion;

(f) A statement that: (i) specifically identifies each of the grounds for stipulated penalties in Paragraphs 86 and 87 of this Decree and describes whether or not the Acid Gas Flaring Incident falls under any of those grounds, provided, however, that the Sinclair Refineries may choose to submit with the Root Cause Analysis a payment of stipulated penalties in the nature of settlement without the need to specifically identify the grounds for the penalty. Such payment of stipulated penalties shall not constitute an admission of liability, nor shall it raise any presumption whatsoever about the nature, existence or strength of the Sinclair Refineries' potential defenses; (ii) if an Acid Gas Flaring Incident falls under Paragraph 88 of this Decree, describes which Subparagraph 88.a or 88.b applies and why; and (iii) if an Acid Gas Flaring Incident falls under either Paragraph 87 or 88.b, states whether or not the Sinclair Refineries assert a defense to the Flaring Incident, and if so, a description of the defense;

(g) To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of Subparagraphs 79.d and 79.e shall be submitted; provided, however, that if the Sinclair Refineries have not submitted a report or a series of reports containing the information required to be submitted under this Paragraph within the 45-day time period set forth in this Paragraph 79 (or such additional time as EPA may allow) after the due date for the initial report for the Acid Gas Flaring Incident, the stipulated penalty provisions of Part XI shall apply, but the Sinclair Refineries shall retain the right to dispute, under the dispute resolution provision of this Consent Decree, any demand for stipulated penalties that was issued as a result of the Sinclair Refineries' failure to submit the report required under this Paragraph within the time frame set forth. Nothing in this Paragraph shall be deemed to excuse the Sinclair Refineries from their investigation, reporting and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an Acid Gas Flaring Incident for which the Sinclair Refineries have requested an extension of time under this Subparagraph 79.g; and

(h) To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, then, by no later than thirty (30) days after completion of the implementation of corrective action(s), the Sinclair

Refineries shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

80. Corrective Action.

a. In response to any AG Flaring Incident, the Sinclair Refineries shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all significant contributing causes of that AG Flaring Incident.

b. If EPA does not notify the Sinclair Refineries in writing within forty-five (45) days of receipt of the report(s) required by Paragraph 79 that it objects to one or more aspects of the proposed corrective action(s) and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of compliance with Paragraph 80.a of this Decree. EPA does not, however, by its failure to object to any corrective action that the Sinclair Refineries may take in the future, warrant or aver in any manner that any corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or its implementing regulations.

c. If EPA objects, in whole or in part, to the proposed corrective action(s) and/or the schedule(s) of implementation or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify the Sinclair Refineries and explain the basis for its objection (s) in writing within forty-five (45) days following receipt of the report(s) required by Paragraph 79, and the Sinclair Refineries shall respond promptly to EPA's objection(s).

d. Nothing in this Section V.J. shall be construed to limit the right of the Sinclair Refineries to take such corrective action as they deem necessary and appropriate immediately following an Acid Gas Flaring Incident or in the period during preparation and review of any reports required under this Paragraph.

81-84. Reserved.

85. Stipulated Penalties for Acid Gas Flaring Incidents. The provisions of Paragraphs 86 through 89 are to be used by EPA in assessing stipulated penalties for AG Flaring Incidents occurring on and after Date of Entry and by the United States in demanding stipulated penalties

under this Section V.J. The provisions of Paragraphs 86-89 do not apply to HC Flaring Incidents.

86. The stipulated penalty provisions of Paragraph 224 shall apply to any Acid Gas Flaring Incident for which the Root Cause was one or more or the following acts, omissions, or events:

(a) Error resulting from careless operation by the personnel charged with the responsibility for the Sulfur Recovery Plant, TGU, or Upstream Process Units;

(b) Failure to follow written procedures; or

(c) A failure of equipment that is due to a failure by the Sinclair Refineries to operate and maintain that equipment in a manner consistent with good engineering practice.

87. If the Acid Gas Flaring Incident is not a result of one of the Root Causes identified in Paragraph 86, then the stipulated penalty provisions of Paragraph 224 shall apply if the Acid Gas Flaring Incident:

(a) Results in emissions of sulfur dioxide at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more and the Sinclair Refineries failed to act in accordance with its PMO Plan and/or to take any action during the Acid Gas Flaring Incident to limit the duration and/or quantity of SO_2 emissions associated with such incident; or

(b) Causes the total number of Acid Gas Flaring Incidents in a rolling twelve (12) month period to exceed five (5) per refinery.

88. With respect to any Acid Gas Flaring Incident not identified in Paragraphs 86 or 87, the following provisions shall apply:

a. First Time: If the Root Cause of the Acid Gas Flaring Incident was not a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident that occurred since Date of Entry, then:

(1) If the Root Cause of the Acid Gas Flaring Incident was sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice, then that cause shall be designated as an

agreed-upon malfunction for purposes of reviewing subsequent Acid Gas Flaring Incidents; or

(2) If the Root Cause of the Acid Gas Flaring Incident was sudden and infrequent, and was reasonably preventable through the exercise of good engineering practice, then the Sinclair Refineries shall implement corrective action(s) pursuant to Paragraph 80, and the stipulated penalty provisions of Part XI shall not apply.

b. Recurrence: If the Root Cause is a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident that occurred since the Date of Entry, then the Sinclair Refineries shall be liable for stipulated penalties under Part XI unless:

(1) the Flaring Incident resulted from a Malfunction; or

(2) the Root Cause previously was designated as an agreed-upon malfunction under Paragraph 88.a.(1); or

(3) the AG Flaring Incident had as its Root Cause the recurrence of a Root Cause for which the Sinclair Refineries had previously developed, or was in the process of developing, a corrective action plan and for which the Sinclair Refineries had not yet completed implementation.

89. Defenses. The Sinclair Refineries may raise the following affirmative defenses in response to a demand by the United States for stipulated penalties:

(a) *Force majeure*;

(b) As to Paragraph 86, the Acid Gas Flaring Incident does not meet the identified criteria;

(c) As to Paragraph 87, Malfunction; and,

(d) As to Paragraph 88, the Incident does not meet the identified criteria and/or was due to a Malfunction.

90. In the event a dispute under Paragraphs 85 through 89 is brought to the Court pursuant to the Dispute Resolution provisions of this Consent Decree, the Sinclair Refineries may also assert a Start up, Shutdown and/or upset defense, but the United States shall be entitled to assert that such defenses are not available. If the Sinclair Refineries prevail in persuading the Court that the defenses of Startup, Shutdown and/or upset are available for AG Flaring Incidents under 40 C.F.R. 60.104(a)(1), the Sinclair Refineries shall not be liable for stipulated penalties

for emissions resulting from such Startup, Shutdown and/or upset. If the United States prevails in persuading the Court that the defenses or Startup, Shutdown and/or upset are not available, the Sinclair Refineries shall be liable for such stipulated penalties.

91. Other than for a Malfunction or *force majeure*, if no Acid Gas Flaring Incident occurs at a Sinclair Refinery for a rolling 36-month period, then the stipulated penalty provisions of Section V.J. shall no longer apply to that refinery. EPA may elect to reinstate the stipulated penalty provision if such Refinery has an Acid Gas Flaring Incident which would otherwise be subject to stipulated penalties. EPA's decision shall not be subject to dispute resolution. Once reinstated, the stipulated penalty provision shall continue for the remaining life of this Consent Decree for that Refinery.

92. Emission Calculations.

a. Calculation of the Quantity of Sulfur Dioxide Emissions Resulting from AG Flaring. For purposes of this Consent Decree, the quantity of SO_2 emissions resulting from an AG Flaring Incident shall be calculated by the following formula:

$$\text{Tons of } SO_2 = [FR][TD][Conc H_2S][8.44 \times 10^{-5}]$$

The quantity of SO_2 emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO_2 emitted shall be rounded to 10.1 tons.) For purposes of determining the occurrence of, or the total quantity of SO_2 emissions resulting from, an AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO_2 emitted shall be equal to the sum of the quantities of SO_2 flared during each 24-hour period starting when the Acid Gas was first flared.

b. Calculation of the Rate of SO_2 Emissions During AG Flaring. For purposes of this Consent Decree, the rate of SO_2 emissions resulting from an AG Flaring Incident shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

$$ER = [FR][Conc H_2S][0.169].$$

The emission rate shall be rounded to one decimal point. (Thus, for example, for a calculation that results in an emission rate of 19.95 pounds of SO_2 per hour, the emission rate shall be rounded to 20.0 pounds of SO_2 per hour; for a calculation that results in an emission rate of 20.05 pounds of SO_2 per hour, the emission rate shall be rounded to 20.1.)

c. Meaning of Variables and Derivation of Multipliers Used in the Equations in this Paragraph 92:

ER	=	Emission Rate in pounds of SO_2 per hour
FR	=	Average Flow Rate to Flaring Device(s) during Flaring Incident in standard cubic feet per hour
TD	=	Total Duration of Flaring Incident in hours
ConcH_2S	=	Average Concentration of Hydrogen Sulfide in gas during Flaring Incident (or immediately prior to Flaring Incident if all gas is being flared) expressed as a volume fraction (scf H_2S/scf gas)
8.44 x 10-5	=	[lb mole H_2S/379 scf H_2S][64 lbs SO_2/lb mole H_2S][Ton/2000 lbs]
0.169	=	[lb mole H_2S/379 scf H_2S][1.0 lb mole SO_2/1 lb mole H_2S][64 lb SO_2/1.0 lb mole SO_2]

The flow of gas to the AG Flaring Device(s) ("FR") shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration ("ConcH_2S") shall be determined from the Sulfur Recovery Plant feed gas analyzer, from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler or draeger tube analysis or by any other method approved by EPA or the Co-Plaintiffs. In the event that any of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under Paragraph 79 shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

93. Tail Gas Incidents.

a. Investigation, Reporting, Corrective Action and Stipulated Penalties. For Tail Gas Incidents occurring on or after the Date of Entry, the Sinclair Refineries shall follow the same investigative, reporting and corrective action requirements as set forth in Paragraphs 79 and 80 and the same assessment of stipulated penalty procedures, as set forth in Paragraphs 86 through 91. These procedures shall be applied to TGU shutdowns, bypasses of a TGU, or other events which result in a Tail Gas Incident, including unscheduled Shutdowns of a Claus Sulfur Recovery Plant.

b. Calculation of the Quantity of SO_2 Emissions Resulting from a Tail Gas Incident. For the purposes of this Consent Decree, the quantity of SO_2 emissions resulting from a Tail Gas Incident shall be calculated by one of the following methods, based on the type of event:

(1) If Tail Gas is combusted in a flare, the SO_2 emissions are calculated using the methods outlined in Paragraph 92; or

(2) If Tail Gas exceeding the 250 ppmvd (NSPS J limit) is emitted from a monitored SRP incinerator, then the following formula applies:

$$ER_{TGI} = \sum_{i=1}^{TD_{TGI}} [FR_{Inc.}]_i \, [Conc.\ SO_2 - 250]_i \, [0.169 \times 10^{-6}] \left[\frac{20.9 - \%\ O_2}{20.9}\right]_i$$

Where:

ER_{TGI}	=	Emissions from Tail Gas Unit at the SRP incinerator, pounds of SO_2 over a 24 hour period
TD_{TGI}	=	Hours when the incinerator CEM was exceeding 250 ppmvd SO_2 on a rolling twelve hour average, corrected to 0% O_2, in each 24 hour period of the Incident
i	=	Each hour within TDTGI
$FR_{Inc.}$	=	Incinerator Exhaust Gas Flow Rate (standard cubic feet per hour, dry basis) (actual stack monitor data or engineering estimate based on the acid gas feed rate to the SRP) for each hour of the Incident
Conc. SO_2	=	The average SO_2 concentration (CEMS data) that is greater than 250 ppm in the incinerator exhaust gas, ppmvd corrected to 0% O_2, for each hour of the Incident
% O_2	=	O_2 concentration (CEMS data) in the incinerator exhaust gas in volume % on dry basis for each hour of the Incident
0.169 x 10-6	=	[lb mole of SO_2 / 379 SO_2] [64 lbs SO_2 / lb mole SO_2] [1 x 10^{-6}]
Standard conditions	=	60 degree F; 14.7 lb_{force}/sq.in. absolute

In the event the concentration SO_2 data point is inaccurate or not available or a flow meter for FR_{Inc}, does not exist or is inoperable, then the Sinclair Refineries shall estimate emissions based on best engineering judgment.

K. Control of Hydrocarbon Flaring Incidents

94. For Hydrocarbon Flaring Incidents occurring after the Date of Entry, the Sinclair Refineries shall follow the same investigative, reporting, and corrective action procedures as those set forth in Paragraphs 79 and 80 (Acid Gas Flaring Incidents); provided however, that in lieu of analyzing possible corrective actions under Paragraph 79.e and taking interim and/or

long-term corrective action under Paragraph 80 for a Hydrocarbon Flaring Incident attributable to the startup or shutdown of a unit that the Sinclair Refineries have previously analyzed under this Paragraph, the Sinclair Refineries may identify such prior analysis when submitting the report required under this Paragraph. The Sinclair Refineries shall submit Hydrocarbon Flaring Incident(s) reports as part of the Semi-annual Progress Reports required pursuant to Part IX. Stipulated penalties under Paragraphs 86 - 91 shall not apply to Hydrocarbon Flaring Incident(s). The formulas at Paragraph 92 (AG Flaring Incidents) shall be used to calculate the quantity and rate of sulfur dioxide emissions during HC Flaring Incidents.

L. CERCLA/EPCRA

95. To the extent that, during the course of the Sinclair Refineries' development of the root cause failure analysis required by Sections V.J. and V.K., any of the Sinclair Refineries discover information possibly demonstrating a failure by the refinery to comply with the reporting requirements for continuous releases of SO_2 pursuant to Section 103(c) of CERCLA and/or Section 304 of EPCRA, including the regulations promulgated thereunder, a voluntary disclosure by that refinery of any such violations will not be deemed "untimely" under EPA's Audit Policy or any Co-Plaintiff's audit policy, solely on the ground that it is submitted more than twenty-one (21) days after it is discovered, provided all such disclosures are made by no later than the Date of Entry.

M. Benzene Waste Operations NESHAP Program Enhancements.

In addition to continuing to comply with all applicable requirements of 40 C.F.R. Part 61, Subpart FF ("Benzene Waste Operations NESHAP" or "Subpart FF"), the Sinclair Refineries agree to undertake the measures set forth in this Section V.M. to ensure continuing compliance with Subpart FF and to minimize or eliminate fugitive benzene waste emissions.

96. Current Compliance Status. The Sinclair Refineries will utilize the following compliance options:

(a) On and after the Date of Entry, the STRC will comply with the compliance option set forth at 40 C.F.R. § 61.342(e) (hereinafter referred to as the "6 BQ compliance option");

(b) On and after the later of the Date of Entry or December 31, 2007, the SWRC will comply with the 6 BQ compliance option; and

(c) The SCRC has reported a Total Annual Benzene ("TAB") of less than 10 Mg/yr.

97. Refinery Compliance Status Changes. Commencing on the Date of Entry of the Consent Decree and continuing through termination, the Sinclair Refineries will not change the compliance status of any Refinery from the 6 BQ compliance option to the 2 Mg compliance option. If at any time from the Date of Lodging of the Consent Decree through its termination, the SCRC is determined to have a TAB equal to or greater than 10 Mg/yr, the SCRC will utilize the 6 BQ compliance option. The SCRC will consult with EPA and the Applicable Co-Plaintiff before making any change in compliance strategy not expressly prohibited by this Paragraph 97. All changes must be undertaken in accordance with the regulatory provisions of the Benzene Waste Operations NESHAP.

98. One-Time Review and Verification of Each Sinclair Refinery's TAB: Phase One of the Review and Verification Process. By no later than December 31, 2007 or 90 days after entry, the SWRC (for the Sinclair Wyoming Refinery) and the STRC (for the Sinclair Tulsa Refinery) will complete a review and verification of the appropriate refinery's TAB and compliance with the 6 BQ compliance option. For purposes of compliance with this Paragraph, each Sinclair Refinery may use the results of TAB audits performed at its Refineries prior to entry of this Consent Decree, provided such audits were conducted after January 1, 2004. The Sinclair Refineries' Phase One review and verification process will include, but is not be limited to:

(a) an identification of each waste stream that is required to be included in the TAB (*e.g.*, slop oil, tank water draws, spent caustic, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround wastes (that meet the definition of waste under Subpart FF));

(b) a review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the accuracy of the annual waste quantity for each waste stream;

(c) an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste

streams consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided however, that previous analytical data or documented knowledge of waste streams may be used in accordance with 40 C.F.R. § 61.355(c)(2), for streams not sampled; and

(d) an identification of whether or not the stream is controlled consistent with the requirements of Subpart FF.

99. By no later than the dates set forth below, each of the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff a Benzene Waste Operations NESHAP Compliance Review and Verification Report ("BWON Compliance Review and Verification Report") that sets forth the results of Phase One, including but not limited to the items identified in (a) through (d) of Paragraph 98.

STRC – 90 Days of Date of Entry

SWRC – 90 Days of Date of Entry

SCRC – 180 Days of Date of Entry

100. One-Time Review and Verification of the Sinclair Refineries' TAB: Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review and Verification Reports and after an opportunity for consultation with the Applicable Co-Plaintiff, EPA may select up to twenty (20) additional waste streams at each of the Sinclair Refineries for sampling for benzene concentration. The Sinclair Refineries will conduct the required sampling and submit the results to EPA within sixty (60) days of receipt of EPA's request. The Sinclair Refineries will use the results of this additional sampling to reevaluate the TAB and the uncontrolled benzene quantity and to amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires the Sinclair Refineries to sample a waste stream as part of the Phase Two review that the Sinclair Refineries sampled and included as part of its Phase One review, the Sinclair Refineries may average the results of such sampling. The Sinclair Refineries will submit an amended BWON Compliance Review and Verification Report within one-hundred twenty (120) days following the date of the completion of the required Phase Two sampling, if Phase Two sampling is required by EPA. This amended BWON Compliance Review and Verification Report will supercede and replace the originally-submitted BWON Compliance Review and Verification Report. If Phase Two sampling is not

required by EPA, the originally-submitted BWON Compliance Review and Verification Report will constitute the final report.

101. Amended TAB Reports. If the results of the BWON Compliance Review and Verification Report indicate that any of the Sinclair Refineries' most recently-filed TAB reports does not satisfy the requirements of Subpart FF, the relevant Sinclair Refinery will submit, by no later than one-hundred twenty (120) days after completion of the BWON Compliance Review and Verification Report, an amended TAB report to the applicable state agency. Each Sinclair Refinery's BWON Compliance Review and Verification Report will be deemed an amended TAB report for purposes of Subpart FF reporting to EPA.

102. Reserved.

103. Implementation of Actions Necessary to Correct Non-Compliance: Casper Refinery. If the results of the BWON Compliance Review and Verification Report indicate that the Sinclair Casper Refinery has a TAB of over 10 Mg/yr, the SCRC will submit to EPA, by no later than one-hundred eighty (180) days after completion of the BWON Compliance Review and Verification Report, a plan that identifies with specificity: (a) the actions it will take to ensure that the Refinery's TAB remains below 10 Mg/yr for 2008 and each calendar year thereafter; or (b) a compliance strategy and schedule that the SCRC will implement to ensure that it complies with the 6 BQ compliance option as soon as practicable but by no later than June 30, 2009, if it cannot ensure a consistent TAB below 10 Mg/yr.

104. Implementation of Actions Necessary to Correct Non-Compliance: Review and Approval of Plans. Any plans submitted pursuant to Paragraph 103 will be subject to the approval of, disapproval of, or modification by EPA, after an opportunity for consultation with the Applicable Co-Plaintiff. Within sixty (60) days after receiving any notification of disapproval or request for modification from EPA, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff a revised plan that responds to all identified deficiencies. Unless EPA responds to the Sinclair Refineries' revised plan within sixty (60) days, the Sinclair Refineries will implement their proposed plan.

105. Implementation of Actions Necessary to Correct Non-Compliance: Certification of Compliance. By no later than thirty (30) days after completion of the implementation of all actions, if any, required pursuant to Paragraphs 103-105 to come into compliance with the applicable compliance option, the Sinclair Refineries will submit their certification and a report to EPA and the Applicable Co-Plaintiff that complies with the Benzene Waste Operations NESHAP.

106. Carbon Canisters. The Sinclair Refineries will comply with the requirements of Paragraphs 107-117 at all locations where (a) carbon canister(s) is (are) utilized as a control device under the Benzene Waste Operations NESHAP. To the extent that any applicable state or local rule, regulation, or permit contains more stringent definitions, standards, limitations, or work practices than those set forth in Paragraphs 107-117, then those definitions, standards, limitations or work practices will apply instead.

107. Installation of Primary and Secondary Canisters Operated in Series. By no later than December 31, 2007, the Sinclair Refineries will replace all single carbon canisters or dual canister systems in parallel with primary and secondary carbon canisters and operate them in series.

108. Report Certifying Installation. By no later than March 31, 2008, the Sinclair Refineries will submit a report to EPA and the Applicable Co-Plaintiff certifying the completion of the installations required by Paragraph 107. The report will include a list of all locations within each Refinery where secondary carbon canisters were installed, the installation date of each secondary canister, the date that each secondary canister was put into operation, whether the Sinclair Refineries are monitoring for breakthrough for VOCs or benzene, and the concentration of the monitored parameter that each Refinery uses as its definition of "breakthrough." The Sinclair Refineries must provide written notification to EPA and the Applicable Co-Plaintiff at least thirty (30) days prior to changing either the parameter that it is monitoring and/or the concentration that it defines as "breakthrough."

109. Prohibition of Use of Single Canisters. Except as expressly provided in Paragraph 114, the Sinclair Refineries will not use single carbon canisters for any new units or

installations that require vapor control pursuant to the Benzene Waste Operations NESHAP at any of its Refineries.

110. Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series and depending upon the parameter that each Sinclair Refinery decides to monitor, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene. At its option, each Sinclair Refinery may utilize a concentration for "breakthrough" that is lower than 50 ppm VOC or 1 ppm benzene.

111. Monitoring for Breakthrough in Dual Canister Systems. By no later than the later of December 31, 2008, or seven (7) days after the installation of any new dual canister, the Sinclair Refineries will start to monitor for breakthrough between the primary and secondary carbon canisters at times when there is actual flow to the carbon canister, in accordance with the frequency specified in 40 C.F.R. § 61.354(d), and will monitor the outlet of the secondary canister on a monthly basis or at its design replacement interval (whichever is less) to verify the proper functioning of the system. In the event there is no flow to the canister, the Refinery shall document the lack of flow and remonitor at the next monitoring period.

112. Replacing Canisters in Dual Canister Systems. The Sinclair Refineries will replace the original primary carbon canister (or route the flow to an appropriate alternative control device) immediately when breakthrough is detected. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister unless both the primary and secondary carbon canisters are replaced. For purposes of this Paragraph, "immediately" will mean eight (8) hours for canisters of 55 gallons or less and twenty-four (24) hours for canisters greater than 55 gallons. If a Refinery chooses to define breakthrough for primary carbon canister replacement at 5 ppm or lower VOC, that Refinery may replace primary canisters of 55 gallons or less within twenty-four (24) hours of detecting breakthrough.

113. In lieu of replacing the primary canister immediately, the Sinclair Refineries may elect to monitor the secondary canister on the day breakthrough between the primary and secondary canister is identified and each calendar day thereafter. This daily monitoring will

continue until the primary canister is replaced. If the monitored parameter (either benzene or VOC) is detected above background levels at the outlet of the secondary canister during this period of daily monitoring, both canisters must be replaced within eight (8) hours.

114. Limited Use of Single Canisters. The Sinclair Refineries 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 or benzene above background. Beginning no later than the Date of Entry, the Sinclair Refineries will monitor for breakthrough from single carbon canisters each day there is actual flow to the carbon canister.

115. Replacing Canisters in Single Canister Systems. The Sinclair Refineries will 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" will mean eight (8) hours for canisters of 55 gallons or less and twenty-four (24) hours for canisters greater than 55 gallons. If flow to a single canister is discontinued under this Paragraph, such canister may not be placed back into BWON vapor control service until it has been appropriately regenerated or replaced.

116. Maintaining Canister Supplies. The Sinclair Refineries will maintain a supply of fresh carbon canisters at each Refinery at all times.

117. Records relating to Canisters. Records for the requirements of Paragraphs 107-116 will be maintained in accordance with 40 C.F.R. § 61.356(j)(10).

118. Annual Review. By no later than June 30, 2008, the Sinclair Refineries will modify existing management of change procedures or develop a new program to annually review process and project information for each Refinery, including but not limited to construction projects, to ensure that all new benzene waste streams are included in each Refinery's waste stream inventory during the life of the Consent Decree.

119. Laboratory Audits. The Sinclair Refineries will conduct audits of all laboratories that perform analyses of the Sinclair Refineries' benzene waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed.

120. By no later than June 30, 2008, the Sinclair Refineries will complete audits of all of the laboratories they use to perform analyses of benzene waste NESHAP samples. After June 30, 2008, the Sinclair Refineries will audit any new laboratory to be used for analyses of benzene waste NESHAP samples prior to such use.

121. If the Sinclair Refineries have completed an audit of any laboratory on or after January 1, 2004, the Sinclair Refineries will not be required to perform additional audits of those laboratories pursuant to Paragraph 120.

122. During the life of this Consent Decree, the Sinclair Refineries will conduct subsequent laboratory audits, such that each laboratory is audited every two (2) years.

123. The Sinclair Refineries may retain third parties to conduct these audits or use audits conducted by others as its own, but the responsibility and obligation to ensure that its Refineries comply with this Consent Decree and Subpart FF rest solely with the Sinclair Refineries.

124. Benzene Spills. For each spill at a Sinclair Refinery after Date of Entry of the Consent Decree, each Sinclair Refinery shall review the spill to determine if benzene waste, as defined by Subpart FF, was generated. For each spill involving the release of more than 10 pounds of benzene in a 24-hour period, the Refinery: (i) shall include benzene waste generated by the spill in the relevant Refinery's TAB, as required by 40 C.F.R. § 61.342; and (ii) shall account for such benzene waste in accordance with the applicable compliance option calculations, as appropriate under Subpart FF, unless the benzene waste is properly managed in controlled waste management units at the Refinery.

125. Training. By the later of the Date of Entry or December 31, 2007, the Sinclair Refineries will develop and begin implementation of annual (*i.e.*, once each calendar year) training for all employees asked to draw benzene waste samples.

126. Additional Training:

a. By the later of the Date of Entry or December 31, 2007, the STRC and the SWRC will complete the development of standard operating procedures for all control

equipment used to comply with the Benzene Waste Operations NESHAP. By no later than June 30, 2008, the STRC and the SWRC will complete an initial training program regarding these procedures for all operators assigned to this equipment. Comparable training will also be provided to any persons who subsequently become operators, prior to their assumption of this duty. Until termination of this Decree, "refresher" training in these procedures will be performed at a minimum on a three (3) year cycle.

b. The SCRC will comply with the provisions of Paragraph 126.a if and when its TAB reaches 10 Mg/yr. The SCRC will propose a schedule for training at the same time that it proposes a plan, pursuant to Paragraph 103, that identifies the compliance strategy and schedule that the SCRC will implement to come into compliance with the 6 BQ compliance option.

127. Training: Contractors. As part of the Sinclair Refineries' training programs, the Sinclair Refineries must ensure that the employees of any contractors hired to perform the requirements of Paragraphs 125 and 126 are properly trained to implement all applicable provisions of this Section V.M.

128. Waste/Slop/Off-Spec Oil Management: Schematics. By no later than 60 days after Date of Entry, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff schematics for each Refinery that: (a) depict the waste management units (including sewers) that handle, store, and transfer waste, slop, or off-spec oil streams; (b) identify the control status of each waste management unit; and (c) show how such oil is transferred within the Refinery. The Sinclair Refineries will include with the schematics a quantification of all uncontrolled waste, slop, or off-spec oil movements at the Refinery. If requested by EPA, the Sinclair Refineries will submit to EPA within ninety (90) days of the request, revised schematics regarding the characterization of these waste, slop, off-spec oil streams and the appropriate control standards.

129. Waste/Slop/Off-Spec Oil Management: Non-Aqueous Benzene Waste Streams. All waste management units handling non-exempt, non-aqueous benzene wastes, as defined in Subpart FF, will meet the applicable control standards of Subpart FF.

130. Waste/Slop/Off-Spec Oil Management: Aqueous Benzene Waste Streams. For purposes of calculating each Refinery's TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), the Sinclair Refineries will include all waste/slop/off-spec oil streams that become "aqueous" until such streams are recycled to a process or put into a process feed tank (unless the tank is used primarily for the storage of wastes). Appropriate adjustments will be made to such calculations to avoid the double-counting of benzene. For purposes of complying with the 6 BQ compliance option, all waste management units handling benzene waste streams will either meet the applicable control standards of Subpart FF or will have their uncontrolled benzene quantity count toward the applicable 6 BQ limit.

131. Benzene Waste Operations Sampling Plans: General. By no later than three months after entry of the CD, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff benzene waste operations sampling plans designed to describe the sampling of benzene waste streams that the Sinclair Refineries will undertake to estimate quarterly and annual TABs for the Sinclair Casper Refinery or quarterly and annual uncontrolled benzene quantities under the 6 BQ compliance option for the Sinclair Tulsa Refinery and the Sinclair Wyoming Refinery.

132. Benzene Waste Operations Sampling Plans: Content Requirements.

a. The Sinclair Casper Refinery (TAB under 10 Mg/yr). The sampling plan will identify:

(1) all waste streams that contributed 0.05 Mg/yr or more at the point of generation to the previous year's TAB calculations; and

(2) the proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual TAB calculations under the terms of Paragraph 135; or

(3) the items identified under Paragraph 132.b(2) if it is determined that the TAB equals or exceeds 10 Mg/yr and it is then subject to the 6 BQ Compliance Option under Paragraph 97.

The sampling plan will require the SCRC to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph (a)(i) and all locations identified in Subparagraph (a)(ii).

b. The Sinclair Tulsa and the Sinclair Wyoming Refineries (6 BQ Compliance Option). The sampling plans will identify:

(1) All uncontrolled waste streams that count toward the 6 BQ calculation and contain greater than 0.05 Mg/yr of benzene at the point of generation; and

(2) The proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual uncontrolled benzene quantity calculations under the terms of Paragraph 135.

The sampling plan will require the STRC and the SWRC to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph (b)(1) and all locations identified in Subparagraph (b)(2).

c. Compliance Plan under Paragraph 103. If the SCRC must implement a compliance plan under Paragraph 103, the SCRC may submit a proposed sampling plan that does not include sampling points in locations within the Refinery that are subject to changes proposed in the compliance plan. To the extent that the SCRC believes that such sampling will not be effective until it completes implementation of the compliance plan and by no later than sixty (60) days prior to the due date for the submission of the sampling plan, the SCRC may request EPA approval for postponing its submitting a sampling plan and commencing sampling until the compliance plan is completed. Should EPA disapprove, the SCRC will submit a plan by the due date in Paragraph 104.

133. Benzene Waste Operations Sampling Plans: Timing for Implementation. The Sinclair Refineries will implement the sampling required under each sampling plan during the first full calendar quarter after the Sinclair Refineries submit the plan for each Refinery. The Sinclair Refineries will continue to implement the sampling plan (i) unless and until EPA disapproves the plans; or (ii) unless and until the Sinclair Refineries modify the plans, with EPA's approval, under Paragraph 134.

134. Benzene Waste Operations Sampling Plans: Modifications.

a. Changes in Processes, Operations or Other Factors. If changes in processes, operations or other factors lead any of the Sinclair Refineries to conclude that a sampling plan may no longer provide an accurate basis for estimating the Refinery's quarterly or annual TABs or benzene quantities under Paragraph 135, then by no later than ninety (90) days after the relevant Sinclair Refinery determines that the plan no longer provides an accurate measure, the relevant Sinclair Refinery will submit to EPA and the Applicable Co-Plaintiff a revised plan for EPA approval. In the first full calendar quarter after submitting the revised plan, the relevant Sinclair Refinery will implement the revised plan. The relevant Sinclair Refinery will continue to implement the revised plan unless and until EPA disapproves the revised plan after an opportunity for consultation with the Applicable Co-Plaintiff.

b. Requests for Modifications. After two (2) years of implementing a sampling plan, any Sinclair Refinery may submit a request to EPA for approval, with a copy to the Applicable Co-Plaintiff, to revise its sampling plan, including sampling frequency. EPA will not unreasonably withhold its consent. The relevant Sinclair Refinery will not implement any proposed revisions under this Subparagraph until EPA provides its approval after an opportunity for consultation with the Applicable Co-Plaintiff.

135. Quarterly and Annual Estimations of TABs and Uncontrolled Benzene Quantities. At the end of each calendar quarter and based on sampling results and approved flow calculations, the SCRC will calculate a quarterly and projected annual TAB; and the SWRC and the STRC will calculate their uncontrolled benzene quantity. In making these calculations, the Sinclair Refineries will use the average of the three samples collected at each sampling location. If these calculations do not identify any potential violations of the benzene waste operations NESHAP, the Sinclair Refineries will submit these calculations in the reports due under Part IX of this Decree.

136. Corrective Measures: Basis. Except as set forth in Paragraph 137, the Sinclair Refineries will implement corrective measures if:

(a) For the Sinclair Casper Refinery, the quarterly TAB equals or exceeds 2.5 Mg or the projected annual TAB equals or exceeds 10 Mg for the then-current compliance year; or

(b) For the Sinclair Tulsa and the Sinclair Wyoming Refineries, the quarterly uncontrolled benzene quantity equals or exceeds 1.5 Mg or the projected annual uncontrolled benzene quantity equals or exceeds 6 Mg for the then-current compliance year.

137. Exception to Implementing Corrective Measures. If the Sinclair Refineries can identify the reason(s) in any particular calendar quarter that the quarterly and projected annual calculations result in benzene quantities in excess of those identified in Paragraph 136 and states that it does not expect such reason or reasons to recur, then the Sinclair Refineries may exclude the benzene quantity attributable to the identified reason(s) from the projected calendar year quantity. If that exclusion results in no potential violation of the Benzene Waste Operation NESHAP, the Sinclair Refineries will not be required to implement corrective measures under Paragraph 136, and the Sinclair Refineries may exclude the uncontrolled benzene attributable to the identified reason(s) in determining the applicability of Paragraph 139. At any time that the Sinclair Refineries proceeds under this Paragraph, the Sinclair Refineries will describe how they satisfied the conditions in this Paragraph in the reports due under Part IX of this Decree.

138. Compliance Assurance Plan. If the Sinclair Refineries meet one or more conditions in Paragraph 136 (except as provided under Paragraph 137), then by no later than sixty (60) days after the end of the calendar quarter in which one or more of the conditions were met, the Sinclair Refineries will submit a compliance assurance plan to EPA for approval, with a copy to the Applicable Co-Plaintiff. In that compliance assurance plan, the Sinclair Refineries will identify the cause(s) of the potentially-elevated benzene quantities, all corrective actions that the Sinclair Refineries have taken or plan to take to ensure that the cause(s) will not recur, and the schedule of actions that the Sinclair Refineries will take to ensure that the subject refinery complies with the Benzene Waste Operations NESHAP for the calendar compliance year. The Sinclair Refineries will implement the plan unless and until EPA disapproves after an opportunity for consultation with the Applicable Co-Plaintiff.

139. Third-Party Assistance. If at least one of the conditions in Paragraph 136 exists at a particular Refinery in two consecutive quarters, then that Refinery will retain a third-party contractor during the following quarter to undertake a TAB study and compliance review at that Refinery. By no later than ninety (90) days after the Sinclair Refineries receive the results of the third-party TAB study and compliance review, the Sinclair Refineries will submit such results

and a plan and schedule for remedying any deficiencies identified in the third-party study and compliance review to EPA and the Applicable Co-Plaintiff. The Sinclair Refineries will implement their proposed plan unless and until EPA disapproves after an opportunity for consultation with the Applicable Co-Plaintiff.

140. Miscellaneous Measures. The provisions of this Paragraph will apply to the SWRC and the STRC beginning no later than 90 days following the Date of Entry of this CD, and to the SCRC by no later than the date it submits a compliance strategy under Paragraph 103:

(a) Conduct monthly visual inspections of all Subpart FF water traps within the Refinery's individual drain systems;

(b) Identify and mark all area drains that are segregated storm water drains;

(c) On a weekly basis, visually inspect all Subpart FF conservation vents on process sewers for detectable leaks; reset any vents where leaks are detected; and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, the Sinclair Refineries may submit a request to the Applicable EPA Region to modify the frequency of the inspections. EPA will not unreasonably withhold its consent. Nothing in this Paragraph (c) will require the Sinclair Refineries to monitor conservation vents on fixed roof tanks. Alternatively, for conservation vents with indicators that identify whether flow has occurred, the Sinclair Refineries may elect to visually inspect such indicators on a monthly basis and, if flow is then detected, the Sinclair Refineries will then visually inspect that indicator on a weekly basis for four (4) weeks. If flow is detected during any two (2) of those four (4) weeks, the Sinclair Refineries will install a carbon canister on that vent until appropriate corrective action(s) can be implemented to prevent such flow;

(d) Conduct quarterly monitoring of the controlled oil-water separators in benzene service in accordance with the "no detectable emissions" provision in 40 C.F.R. § 61.347. Should a Sinclair Refinery elect to use floating roof storage vessels in oil water separator service, the storage vessel inspections per 40 CFR 60 Subpart Kb shall be used in-lieu of the "no detectable emissions" provision; and

(e) Manage all groundwater remediation wastes that are covered by Subpart FF at each of its Refineries in appropriate waste management units under and as required by the Benzene Waste Operations NESHAP.

141. Recordkeeping and Reporting Requirements for this Section V.M: Outside of the Reports Required under 40 C.F.R. § 61.357 or under the Progress Report Procedures of Part IX (Recordkeeping and Reporting). At the times specified in the applicable provisions of this Section V.M, the Sinclair Refineries will submit, as and to the extent required, the following reports to EPA and the Applicable Co-Plaintiff:

(a) BWON Compliance Review and Verification Report (¶99), as amended, if necessary (¶100);

(b) Amended TAB Report, if necessary (¶101);

(c) Plan for the Sinclair Casper Refinery to come into compliance with the 6 BQ compliance option upon discovering that its TAB equals or exceeds 10 Mg/yr through the BWON Compliance Review and Verification Report (103), or through sampling (¶132);

(d) Compliance certification, if necessary (¶105);

(e) Report certifying the completion of the installation of dual carbon canisters (¶108);

(f) Schematics of waste/slop/off-spec oil movements (¶128), as revised, if necessary;

(g) Sampling Plans (¶131), and revised Sampling Plans, if necessary (¶134); and

(h) Plan to ensure that uncontrolled benzene does not equal or exceed, as applicable, 6 Mg/yr (¶138).

142. Recordkeeping and Reporting Requirements for this Section: As Part of Either the Reports Required under 40 C.F.R. § 61.357 or the Progress Report Procedures of Part IX (Recordkeeping and Reporting). The Sinclair Refineries will submit the following information as part of the information submitted in either the quarterly report required pursuant to 40 C.F.R. § 61.357(d)(6) and (7) ("Section 61.357 Reports") (for all but the Sinclair Casper Refinery) or in the reports due pursuant to Part IX of this Decree:

(a) Sampling Results under Paragraphs 134 and 135. The report will include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the quarterly and projected calendar year TAB (for the Sinclair Casper Refinery) and the quarterly and

projected calendar year uncontrolled benzene quantity (for the remaining Sinclair Wyoming and the Tulsa Refineries);

(b) Training. Initial and/or subsequent training conducted in accordance with Paragraphs 125-127; and

(c) Laboratory Audits. Initial and subsequent audits conducted pursuant to Paragraphs 119-123, through the calendar quarter for which the quarterly report is due, including in each such report, at a minimum, the identification of each laboratory audited, a description of the methods used in the audit, and the results of the audit.

143. At any time after two years of reporting pursuant to the requirements of Paragraph 142, the Sinclair Refineries may submit a request to EPA to modify the reporting frequency for any or all of the reporting categories of Paragraph 142. This request may include a request to report the previous year's projected calendar year TAB and uncontrolled benzene quantity in the Part IX report due on January 31 of each year, rather than semi-annually on January 31 and July 31 of each year. The Sinclair Refineries will not change the due dates for their reports under Paragraph 142 unless and until EPA approves the Sinclair Refineries' request after an opportunity for consultation with the Applicable Co-Plaintiff.

144. Certifications Required in this Section V.M. Certifications required under this Section V.M will be made in accordance with the provisions of Part IX.

145-147. Reserved.

N. Leak Detection and Repair ("LDAR") Program Enhancements

148. As of the Date of Entry, each existing "process unit" (as defined by 40 C.F.R. 60.591) at each of the Sinclair Refineries shall become an "affected facility" for purposes of 40 C.F.R. Part 60, Subpart GGG, and shall become subject to and comply with the requirements of 40 C.F.R. Part 60, Subpart GGG, and the requirements of this Section.

149. In order to minimize or eliminate fugitive emissions of volatile organic compounds ("VOCs"), benzene, volatile hazardous air pollutants ("VHAPs"), and organic hazardous air pollutants ("HAPs") from equipment in light liquid and/or in gas/vapor service, the Sinclair Refineries shall implement the enhancements at Paragraph 150 through Paragraph 179 to their LDAR programs under Title 40 of the Code of Federal Regulations, Part 60, Subpart GGG;

Part 61, Subparts J and V; Part 63, Subparts F, H, and CC. The terms "equipment," "in light liquid service" and "in gas/vapor service" shall have the definitions set forth in the applicable provisions of Title 40 of the Code of Federal Regulations, Part 60, Subparts VV and GGG; Part 61, Subparts J and V; Part 63, Subparts F, H and CC.

150. Written Refinery-Wide LDAR Program. By no later than 90 days after Date of Entry, the Sinclair Refineries shall develop and maintain a written, Refinery-wide program for compliance with all applicable federal and state LDAR regulations. The Sinclair Refineries shall implement this program on a Refinery-wide basis and update such program as may be necessary to ensure continuing compliance through and after termination. The Refinery-wide program shall include at a minimum:

(a) A facility-wide leak rate goal that includes specific process-unit leak rate goals that will be a target for achievement;

(b) An identification of all equipment in light liquid and/or in gas/vapor service in the Sinclair Refineries that has the potential to leak VOCs, HAPs, VHAPs, and benzene;

(c) Procedures for identifying leaking equipment within process units;

(d) Procedures for repairing and keeping track of leaking equipment;

(e) Procedures (*e.g.*, a Management of Change program) to ensure that components subject to LDAR requirements that are added to each facility during scheduled maintenance and construction activities are integrated into the LDAR program;

(f) A process for evaluating new and replacement LDAR equipment that includes active consideration of equipment or techniques that will minimize leaks and/or eliminate chronic leakers; and

(g) A definition of "LDAR Personnel" and a process for accountability, identifying for each facility the person or position that will be the "LDAR Coordinator." Consistent with the Sinclair Refineries' management authority, this person shall have the responsibility to implement improvements to the LDAR program.

151. The Sinclair Refineries shall submit a copy of each Facility's initial written LDAR Program to EPA and to the appropriate state agency. EPA shall review and may comment on the written program after an opportunity for consultation with the Applicable Co-

Plaintiff. The Sinclair Refineries shall address EPA's comments (if any). A description of program changes shall be maintained on-site during the term of the Consent Decree but need not be submitted to the agencies.

152. Training. The Sinclair Refineries will commence implementation of the following training programs:

(a) As of the later of the date of Entry of this Consent Decree or December 31, 2007, for any employee newly-assigned to LDAR responsibilities, the Sinclair Refineries shall require that each such employee satisfactorily complete LDAR training prior to beginning any LDAR work;

(b) By no later than June 30, 2008, for all the Sinclair Refineries' employees assigned specific LDAR responsibilities as a primary job function, such as monitoring technicians, database users, QA/QC personnel and the LDAR Coordinator, the Sinclair Refineries shall provide and require completion of annual LDAR refresher training and initial training before the employee begins LDAR responsibilities;

(c) By no later than June 30, 2008, for all employee operations and maintenance personnel, the Sinclair Refineries shall provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. Refresher training for these personnel shall be performed every three years; and

(d) If contract employees are performing LDAR work, the Sinclair Refineries shall maintain all training records, as required under this Paragraph, for the contract employees.

153. LDAR Audits. The Sinclair Refineries shall implement the Refinery-wide audits set forth in Paragraphs 154-158 to ensure each Refinery's compliance with all applicable LDAR requirements. The LDAR audits shall include but not be limited to, comparative monitoring, records review to ensure monitoring and repairs were completed in the required periods, component identification procedures, tagging procedures, data management procedures, and observation of the LDAR technicians' calibration and monitoring techniques. During the LDAR audits, leak rates shall be calculated for each process unit where comparative monitoring was performed.

154. Initial Compliance Audit. By no later than June 30, 2008 (or six months after the Date of Entry, whichever is later), the Sinclair Refineries shall engage a third-party contractor to undertake refinery-wide audits of its compliance with the LDAR regulations to include, at a minimum, each of the audit requirements set forth in Paragraphs 153-157. Within 30 days of completion of the each audit and by no later than December 31, 2008, the Sinclair Refineries shall report to EPA and the applicable state any areas of non-compliance identified as a result of its refinery-wide audit and submit in writing a proposed compliance schedule for correcting the non-compliance. Within 60 days of completing each audit and by no later than December 31, 2008 (or six months after the Date of Entry, whichever is later), the Sinclair Refineries shall certify to EPA that the refinery: is in compliance; has completed related corrective action (if necessary); and/or is on a compliance schedule.

155. Third-Party Audits. The Sinclair Refineries shall retain an independent contractor(s) with expertise in LDAR program requirements to perform a third-party audit of their LDAR programs at least once every four years.

156. Internal Audits. The Sinclair Refineries shall conduct internal audits of their LDAR programs by sending personnel familiar with LDAR program requirements from one Refinery to audit another Refinery. The Sinclair Refineries shall complete the first internal LDAR audit by no later than two years after the third-party audit is conducted according to Paragraph 155. Internal audits of each of the Sinclair Refineries shall be conducted at least once every four years thereafter. The Sinclair Refineries may elect to retain third-parties to undertake these internal audits, provided that an audit occurs every two (2) years.

157. Audit Every Two Years. To ensure that an audit at each of the Sinclair Refineries occurs every two years, third-party and internal audits shall be separated by two years.

158. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the audits conducted pursuant to Paragraphs 154-156 identify any areas of non-compliance, the Sinclair Refineries shall implement all steps necessary: to correct the area(s) of non-compliance as soon as practicable; and to prevent a recurrence of the cause of the non-compliance, to the extent practicable. Until two years after termination of this consent decree the Sinclair Refineries shall retain the audit reports generated pursuant to Paragraphs 154-156 and

shall maintain a written record of the corrective actions that the Refinery takes in response to any deficiencies identified in any audits. In the quarterly report submitted pursuant to the provisions of Part IX of this Consent Decree (Recordkeeping and Reporting) for the first calendar quarter of each year, the Sinclair Refineries shall submit the audit reports and corrective action records for audits performed and actions taken during the previous calendar year.

159. Internal Leak Definition for Valves and Pumps. The Sinclair Refineries shall utilize the following internal leak definitions for valves and pumps in light liquid and/or gas/vapor service, unless other permit(s), regulations, or laws require the use of lower leak definitions.

160. Leak Definition for Valves. By no later than the Date of Entry, the Sinclair Refineries shall utilize an internal leak definition of 500 ppm VOCs for all of the Refineries' valves, excluding pressure relief devices.

161. Leak Definition for Pumps. By no later than the Date of Entry, the Sinclair Refineries shall utilize an internal leak definition of 2,000 ppm VOCs for all of the Refineries' pumps.

162. Reporting of Valves and Pumps Based on the Internal Leak Definitions. For regulatory reporting purposes, the Sinclair Refineries may continue to report leak rates in valves and pumps against the applicable regulatory leak definition or use the lower, internal leak definitions specified in Paragraphs 160-161. The Sinclair Refineries will identify in their report which definition is being used.

163. Recording, Tracking, Repairing and Re-Monitoring Leaks Based on the Internal Leak Definitions. By no later than the Date of Entry, the Sinclair Refineries shall record, track, repair and remonitor all leaks in excess of the internal leak definitions in Paragraphs 160-161. The Sinclair Refineries shall have five (5) days to make an initial repair attempt and remonitor the component under Paragraph 164 and thirty (30) days either to make repairs and remonitor leaks that are greater than the internal leak definitions but less than the applicable regulatory leak definitions or to place the component on the delay of repair list according to Paragraph 175. All

records of repairs, repair attempts, and remonitoring shall be maintained for the life of the Consent Decree.

164. Initial Attempt at Repair of Valves. Beginning no later than the Date of Entry, the Sinclair Refineries shall promptly make an "initial attempt" at repair on any valve that has a reading greater than 200 ppm of VOCs, excluding control valves and other valves that LDAR personnel are not authorized to repair. The Sinclair Refineries, or their designated contractor, shall re-monitor the leaking valve within five (5) days of identification. If the re-monitored leak reading is below the applicable leak definition, no further action will be necessary. If the re-monitored leak reading is greater than the applicable leak definition, the Sinclair Refineries shall repair the leaking valve according to the requirements under Paragraph 163. All records of repairs, repair attempts, and remonitoring shall be maintained for the life of the Consent Decree.

165. LDAR Monitoring Frequency: Pumps. Unless more frequent monitoring is required by a federal or state regulation when the lower internal leak definition for pumps becomes applicable pursuant to the provisions of Paragraph 161, the Sinclair Refineries shall begin monitoring pumps in light service, other than dual-mechanical seal pumps or pumps vented to a control device, at the lower leak definition on a monthly basis.

166. LDAR Monitoring Frequency: Valves. Unless more frequent monitoring is required by a federal or state regulation when the lower internal leak definition for valves becomes applicable pursuant to the provisions of Paragraph 160, the Sinclair Refineries shall monitor valves, other than difficult-to-monitor or unsafe-to-monitor valves, on a quarterly basis.

167. Monitoring after Turnaround or Maintenance. The Sinclair Refineries will have the option of monitoring affected valves and pumps within process unit(s) after completing a documented maintenance, startup, or shutdown activity without having leaks, detected at concentrations greater than the leak definitions required by this Consent Decree but less than regulatory leak definitions, count as a scheduled monitoring activity, provided the Sinclair Refineries monitor according to the following schedule:

(a) For events involving 1000 or fewer valves and pumps, monitor within one week of the documented maintenance, startup or shutdown activity;

(b) For events involving greater than 1000 but fewer than 5000 valves and pumps, monitor within two (2) weeks of the documented maintenance, startup, or shutdown activity; and

(c) For events involving greater than 5000 valves and pumps, monitor within four (4) weeks of the documented maintenance, startup, or shutdown activity.

168. Electronic Storing and Reporting of LDAR Data. The Sinclair Refineries have and will continue to maintain an electronic database for recordkeeping and reporting of LDAR data.

169. Electronic Data Collection During LDAR Monitoring and Transfer. Beginning no later than the Date of Entry, the Sinclair Refineries shall use dataloggers and/or electronic data collection devices during LDAR monitoring. The Sinclair Refineries, or their designated contractor, shall use its/their best efforts to transfer, on a daily basis, electronic data from electronic datalogging devices to the electronic database of Paragraph 168. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp, and instrument and operator identification. The Sinclair Refineries may use paper logs where necessary or more feasible (*e.g.*, small rounds, remonitoring, or when dataloggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, the daily start and end time for monitoring, and the identification of the monitoring equipment. The Sinclair Refineries shall transfer any manually recorded monitoring data to the electronic database of Paragraph 168 within seven days of monitoring. The Sinclair Refineries shall maintain the LDAR information required by this paragraph for the life of the Consent Decree.

170. QA/QC of LDAR Data. Beginning no later than the Date of Entry, the Sinclair Refineries shall develop and implement procedures to ensure a quality assurance/quality control ("QA/QC") review of all data generated by LDAR monitoring technicians. The Sinclair Refineries shall ensure that monitoring collected by monitoring technicians is reviewed for QA/QC by the technician daily. At least once per calendar quarter, the Sinclair Refineries shall QA/QC the monitoring data collected during the quarter which shall include, but not be limited to, an evaluation of the number of components monitored per technician, time between

monitoring events, and abnormal data patterns. Results from LDAR monitoring shall be reported to unit supervisors daily.

171. LDAR Personnel. By no later than the Date of Entry shall establish a program that will hold LDAR personnel accountable for LDAR performance. The Sinclair Refineries shall maintain a position responsible for LDAR management, with the authority to implement improvements ("LDAR Coordinator").

172. Adding New Valves and Pumps. By no later than the Date of Entry, the Sinclair Refineries shall establish a tracking program for maintenance records (*e.g.*, a Management of Change program) to ensure that valves and pumps added to the Refineries during maintenance and construction are integrated into the LDAR program.

173. Calibration. The Sinclair Refineries shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, App. A, EPA Reference Test Method 21, and shall maintain records of the calibrations for the life of the Consent Decree.

174. Calibration Drift Assessment. Beginning no later than the Date of Entry, the Sinclair Refineries shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The Sinclair Refineries shall conduct the calibration drift assessment using, at a minimum, a 500 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the Sinclair Refineries shall remonitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall remonitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

175. Delay of Repair. Beginning no later than the Date of Entry, the Sinclair Refineries shall implement the following requirements for any equipment that it is allowed to place on the "delay of repair" list for repair under 40 CFR § 60.482-9(a):

a. For all equipment:

(1) Require sign-off by the unit supervisor that the piece of equipment is technically infeasible to repair without a process unit shutdown,

before the component is eligible for inclusion on the "delay of repair" list; and

(2) Include equipment that is placed on the "delay of repair" list in the Sinclair Refineries' regular LDAR monitoring.

b. For valves: For valves (other than control valves) leaking at a rate of 10,000 ppm or greater that cannot otherwise be repaired, the Sinclair Refineries shall use "drill and tap" or similarly effective repair methods to repair such leaking valves, rather than placing the valve on the "delay of repair" list, unless the Sinclair Refineries can demonstrate that there is a safety, mechanical or major environmental concern posed by repairing the leak in this manner. The Sinclair Refineries shall make two repair attempts (if necessary) using "drill and tap" or similarly effective repair method within 30 days of identification of the leak. After two unsuccessful attempts to repair a leaking valve under this Paragraph 175.b, the Sinclair Refineries may place the leaking valve on its "delay of repair" list.

176. New Method of Repair for Leaking Valves. If a new valve repair method not currently in use by the refining industry is planned to be used by the Sinclair Refineries, the Sinclair Refineries will advise EPA prior to implementing such a method or, if prior notice is not practicable, as soon as practicable after implementation.

177. Chronic Leaker Program. The Sinclair Refineries shall replace, repack or perform similarly effective repairs on all chronically leaking non-control valves at the next process unit turnaround. A chronic leaker shall be defined as any component which leaks above 10,000 ppm twice in any consecutive four quarters. If a component has not leaked for a period of 12 consecutive quarters or more prior to a turnaround, it is exempt from the requirements in this Paragraph.

178. Reporting. Consistent with the requirements of Part IX (Recordkeeping and Reporting), the Sinclair Refineries shall include the information set forth below in the designated quarterly progress report(s):

a. First Quarterly Progress Report Due under the Consent Decree. At the later of: (i) the first quarterly progress report due under the Consent Decree; or (ii) the first

quarterly progress report in which the requirement becomes due, the Sinclair Refineries shall include the following:

(1) Copies of the written Refinery-wide LDAR Program required by Paragraph 150;

(2) A certification of the implementation of the lower leak definitions and monitoring frequencies in Paragraphs 159, 160, 161, 165 and 166;

(3) A certification of the implementation of the "initial attempt at repair" program of Paragraph 164;

(4) A certification of the implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 170;

(5) An identification of the individual at each Refinery responsible for LDAR performance as required by Paragraph 150(g);

(6) A certification of the development of a tracking program for new valves and pumps added during maintenance and construction as required by Paragraph 150;

(7) A certification of the implementation of the calibration drift assessment procedures of Paragraph 174;

(8) A certification of the implementation of the "delay of repair" procedures of Paragraph 175; and

(9) A certification of the implementation of the "chronic leaker" program of Paragraph 177.

b. Quarterly Progress Report for the First Calendar Quarter of Each Year. In the quarterly progress report that the Sinclair Refineries submit pursuant to Part XI for the first calendar quarter of each year, the Sinclair Refineries shall include an identification of each audit that was conducted pursuant to the requirements of Paragraphs 154-156 in the previous calendar year including an identification of the auditors, a summary of the audit results, and a summary of the actions that the Sinclair Refineries took or intend to take to correct all deficiencies identified in the audits.

179. Reports due under 40 C.F.R. § 63.654. In each report due under 40 C.F.R. § 63.654, the Sinclair Refineries shall include:

(a) Training. Information identifying the measures that the Sinclair Refineries took to comply with the provisions of Paragraph 152; and

(b) The following information on LDAR monitoring and repairs:

(1) the number of valves and pumps present in each process unit during the quarter;

(2) the number of valves and pumps monitored in each process unit;

(3) an explanation for missed monitoring if the number of valves and pumps present exceeds the number of valves and pumps monitored during the quarter;

(4) the number of valves and pumps found leaking;

(5) the number of "difficult to monitor" pieces of equipment monitored;

(6) a list of all equipment currently on the "delay of repair" list and the date each component was placed on the list;

(7) the number of repair attempts not completed promptly according to Paragraph 164 or completed within 5 days pursuant to Paragraph 163;

(8) the number of repairs not completed within thirty (30) days or placed on the delay of repair list according to Paragraph 163 and/or Paragraph 175; and

(9) the number of chronic leakers that do not get repaired according to the requirements of Paragraph 177.

O. Incorporation of Consent Decree Requirements into Federally Enforceable Permits

180. Obtaining Permit Limits for Consent Decree Emission Limits That Are Effective on or Before December 31, 2007. By no later than June 30, 2008, the Sinclair Refineries will submit complete applications to the applicable state/local agency to incorporate the emission limits and standards required by the Consent Decree that are effective on or before December 31, 2007 into federally enforceable minor or major new source review permits or other permits that will ensure that the underlying emission limit or standard survives the termination of this Consent Decree. Following submission of the complete permit applications, the Sinclair Refineries will cooperate with the applicable state/local agency by promptly submitting to the applicable state/local agency all information that the applicable state/local agency seeks

following its receipt of the permit materials. Upon issuance of such permits or in conjunction with such permitting, the Sinclair Refineries will file any applications necessary to incorporate the requirements of those permits into the Title V permit. The Sinclair Refineries do not waive their right to appeal more stringent emission limits or standards than those required by this Consent Decree.

181. Obtaining Permit Limits For Consent Decree Emission Limits That Become Effective After December 31, 2007. As soon as practicable, but in no event later than ninety days after the effective date or establishment of any emission limits and standards under this Consent Decree, the Sinclair Refineries will submit applications to the applicable state/local agency to incorporate those emission limits and standards into federally enforceable minor or major new source review permits or other permits that will ensure that the underlying emission limit or standard survives the termination of this Consent Decree. Should the application be deemed incomplete by the applicable state/local agency, the Sinclair Refineries shall provide additional information within 60 days. Following submission of the complete permit application, the Sinclair Refineries will cooperate with the applicable state/local agency by promptly submitting to the applicable state/local agency all information that the applicable state/local agency seeks following its receipt of the permit materials. Upon issuance of such permit or in conjunction with such permitting, the Sinclair Refineries will file any applications necessary to incorporate the requirements of that permit into the Title V permit. The Sinclair Refineries do not waive their right to appeal more stringent emission limits or standards than those required by this Consent Decree.

182. Mechanism for Title V Incorporation. The Parties agree that the incorporation of any emission limits or other standards into the Title V permits for the Sinclair Refineries as required by Paragraphs 180 and 181 will be in accordance with the applicable state Title V rules. The Parties agree that incorporation of the requirements of this Decree may be by "amendment" under 40 C.F.R. § 70.7(d) and analogous state Title V rules, where allowed by state law.

183. Construction Permits. The Sinclair Refineries agree to use best efforts to obtain all required, federally enforceable permits and state/local agency permits for the construction of the pollution control technology and/or the installation of equipment necessary to implement the

affirmative relief and environmental projects set forth in this Part V and in Part VIII. To the extent that the Sinclair Refineries must submit permit applications for this construction or installation to the applicable state/local agency, the Sinclair Refineries will cooperate with the applicable state/local agency by promptly submitting to the applicable state/local agency all information that the applicable state/local agency seeks following its receipt of the permit application. This Paragraph is not intended to prevent the Sinclair Refineries from applying to the applicable state/local agency for or otherwise using an available pollution control project exemption.

184-190. Reserved.

VI. EMISSION CREDIT GENERATION.

The intent of this Part generally is to prohibit the Sinclair Refineries from using the emissions reductions ("CD Emissions Reductions") required from this Consent Decree, including the Emission Reductions required in Part V, for the purpose of netting reductions or emission offset credits, but also to describe the circumstances which are not prohibited.

191. Prohibition. The Sinclair Refineries will not generate or use any NOx, SO_2, PM, VOC, or CO emissions reductions that result from any projects conducted or controls utilized to comply with this Consent Decree (including the controls required by Part VIII) as netting reductions or emission offset credits in any PSD, major non-attainment and/or minor New Source Review ("NSR") permit or permit proceeding.

192. Outside the Scope of the Prohibition. Nothing in this Part VI is intended to prohibit the Sinclair Refineries from requesting approval to:

(a) utilize or generate netting reductions or emission offset credits from refinery units that are covered by this Consent Decree to the extent that the proposed netting reductions or emission offset credits represent the difference between the emissions limitations set forth in this Consent Decree for these refinery units and the more stringent emissions limitations that the Sinclair Refineries may elect to accept for these refinery units in a permitting process;

(b) utilize or generate netting reductions or emission offset credits for refinery units that are not subject to an emission limitation pursuant to this Consent Decree;

(c) utilize or generate netting reductions or emission offset credits for Combustion Units on which Qualifying Controls, as defined in Paragraph 41 have been installed, provided that such reductions are not included in the Sinclair Refineries' demonstrations of compliance with the requirements of Paragraphs 42 and 45;

(d) utilize emissions reductions from the installation of controls required by this Consent Decree in determining whether a project that includes both the installation of controls under this Consent Decree and other construction that occurs at the same time and is permitted as a single project triggers major New Source Review requirements; and/or

(e) utilize CD Emission Reductions for the Sinclair Refineries' compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and Non-Attainment New Source Review rules that apply. Notwithstanding the preceding sentence, the Sinclair Refineries will not trade or sell any CD Emissions Reductions.

VII. STATE SUPPLEMENTAL ENVIRONMENTAL PROJECTS

193. In accordance with the requirements set forth in this Part VII and/or the applicable Appendices, the STRC will spend One Hundred Fifty Thousand Dollars ($150,000) to implement the Supplemental Environmental Projects ("SEPs") for the State of Oklahoma described in Paragraphs 194-198.

194. Within 180 days after the entry of this Consent Decree, the STRC shall pay One Hundred Thousand Dollars ($100,000) into the Municipal Trash Truck Diesel Retrofit Fund, to be established by the ODEQ for the purpose of funding the retrofit of Tulsa's municipal trash trucking fleet with controls to reduce emissions of PM.

195. Within 90 days after the date of entry of this Consent Decree, the ODEQ and STRC shall reach agreement on the expenditure of an additional Fifty Thousand Dollars ($50,000) for an additional State Supplemental Environmental Project. The expenditure of the Fifty Thousand Dollars ($50,000) for implementation of the agreed-on project shall be made within one year following agreement on the SEP. In the event that ODEQ and STRC do not reach agreement on an additional State SEP within 90 days after the date of entry of this Consent

Decree, or such longer period as ODEQ and STRC may agree to in writing, STRC shall pay ODEQ Fifty Thousand Dollars ($50,000). The payment shall be made within 30 days of the deadline for reaching agreement on the additional state SEP (including any extensions agreed to by the parties) and will be made by certified or corporate check made payable to the "Oklahoma Department of Environmental Quality" and mailed to:

Oklahoma Department of Environmental Quality
Finance and Human Resources Management
ATTN: Accounts Receivable
P.O. Box 2036
Oklahoma City, OK 73101

196. By signing this Consent Decree, the STRC certifies that it is not required, and has no liability under any federal, state, regional or local law or regulation or pursuant to any agreements or orders of any court, to perform or develop any of the projects identified in Paragraphs 194-195. The STRC further certifies that it has not applied for or received, and will not in the future apply for or receive: (i) credit as a Supplemental Environmental Project or other penalty offset in any other enforcement action for the projects set forth in Paragraphs 194-195; (ii) credit for any emissions reductions resulting from the projects set forth in Paragraphs 194-195 in any federal, state, regional or local emissions trading or early reduction program; or (iii) a deduction from any federal, state, regional, or local tax based on its participation in, performance of, or incurrence of costs related to the projects set forth in Paragraphs 194-195.

197. The STRC will include in each report required by Paragraph 200 a progress report for each SEP being performed pursuant to this Part VIII. In addition, the report required by Paragraph 200 of this Consent Decree for the period in which each project identified in Paragraphs 194-196 is completed will contain the following information with respect to such projects:

(a) A detailed description of each project as implemented;

(b) A brief description of any significant operating problems encountered, including any that had an impact on the environment, and the solutions for each problem;

(c) Certification that each project has been fully implemented pursuant to the provisions of this Consent Decree; and

(d) A description of the environmental and public health benefits resulting from implementation of each project (including quantification of the benefits and pollutant reductions, if feasible).

198. The STRC agrees that in any public statements regarding these SEPs, the STRC must clearly indicate that these projects are being undertaken as part of the settlement of an enforcement action for alleged violations of the Clean Air Act and corollary state statutes.

VIII. RESERVED

IX. REPORTING AND RECORDKEEPING

199. Within thirty (30) days after the end of each calendar quarter through 2007 (beginning with the first full calendar quarter after the Date of Entry of the Consent Decree) and semi-annually on January 31 and July 31 thereafter until termination of this Consent Decree, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff a progress report. The reports will contain the following information:

a. General. Each report will contain:

(1) a progress report on the implementation of the requirements of Part V (Affirmative Relief/Environmental Projects);

(2) a summary of the emissions data that is specifically required by the reporting requirements of Part V of this Consent Decree for the period covered by the report;

(3) a description of any problems anticipated with respect to meeting the requirements of Part V of this Consent Decree;

(4) a description of the status of all SEPs/BEPs (if any) being conducted under Part VII; and

(5) any such additional matters as the Sinclair Refineries believe should be brought to the attention of EPA and the Applicable Co-Plaintiff.

b. Emissions Data. In each semi-annual report required to be submitted on July 31 of each year, the Sinclair Refineries shall provide a summary of annual emissions data for the prior calendar year. The summary shall include:

(1) Estimation (in tons per year) of NOx, SO_2, CO and PM emissions for all heaters and boilers;

(2) Estimation (in tons per year) of NOx, SO2, CO and PM emissions for all FCCUs;

(3) Estimation (in tons per year) of SO2 emissions from all Sulfur Recovery Plants;

(4) Estimation (in tons per year) of SO2 emissions from each flare; and

(5) The basis for each estimate required in this subparagraph (*i.e.*, stack tests, CEMS, PEMS, etc.) and an explanation of methodology used to calculate the tons per year emitted.

c. Exceedances of Emission Limits. In each semi-annual report, the Sinclair Refineries shall identify each exceedance of an emission limit required or established by this Consent Decree that occurred during the previous semi-annual period and, for any emission unit subject to a limit required or established by this Consent Decree that is monitored by a CEMS or PEMS, any periods of CEMS or PEMS downtime that occurred during the prior semi-annual period. For each exceedance and/or each period of CEMS or PEMS downtime, the Sinclair Refineries shall include the following information:

(1) For emissions units monitored with CEMS or PEMS:

(a) The duration of the exceedance(s) and/or CEMS or PEMS downtime expressed as a percentage of operating time in a calendar quarter; and

(b) Identification of each applicable rolling average period in which the Sinclair Refineries exceeded the limit and/or in which CEMS or PEMS downtime occurred, the date and time of the CEMS or PEMS downtime (if applicable), average emissions during the averaging period, and any identifiable cause of the exceedance (including startup, shutdown or malfunction) and/or CEMS or PEMS downtime; and

(2) For emissions units monitored through stack testing:

(a) A summary of the results of stack test; and

(b) A copy of the full stack test report.

d. Certification. Each report will be certified by either a person responsible for environmental management at the Sinclair Refineries or by a person responsible for overseeing implementation of this Decree across the Sinclair Refineries as follows:

> I certify under penalty of law that this information was prepared under my direction or supervision by personnel qualified to properly gather and evaluate the information submitted. Based on my directions and after reasonable inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

X. CIVIL PENALTY

200. In satisfaction of the civil claims asserted by the United States and the Co-Plaintiffs in the complaint filed in this matter, within thirty (30) days of the Date of Entry of the Consent Decree, the Sinclair Refineries will pay penalties as follows:

(a) The STRC will pay a civil penalty of $351,200.00 to the United States and $757,300.00 to the State of Oklahoma (STRC will also perform SEPs at a cost of $150,000.00 described in paragraphs 194 and 195);

(b) The SWRC will pay civil penalty of $314,160.00 to the United States and $395,890.00 to the State of Wyoming;

(c) The SCRC will pay a civil penalty of $134,640.00 to the United States and $496,810.00 to the State of Wyoming.

201. Payment of monies to the United States will be made by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing DOJ Case Number 90-5-2-1-07793, and the civil action case name and case number of this action in the District of Wyoming. The costs of such EFT will be the responsibility of the Sinclair Refineries. Payment will be made in accordance with instructions provided to the Sinclair Refineries by the Financial Litigation Unit of the U.S. Attorney's Office for the District of Wyoming. Of the total amount paid to the United States, $35,000 will be directed to EPA's Hazardous Substance Superfund. Any funds received after 11:00 a.m. (EST) will be credited on the next business day. The Sinclair Refineries will provide notice of payment, referencing DOJ Case Number 90-5-2-1-07793, and the civil action case name and case number to the Department of Justice and to EPA, as provided in Paragraph 341 (Notice).

202. Payment of the civil penalty owed to the State of Oklahoma under Paragraph 200(a) will be made by certified or corporate check made payable to the "Oklahoma Department of Environmental Quality" and mailed to:

Oklahoma Department of Environmental Quality
Finance and Human Resources Management
ATTN: Accounts Receivable
P.O. Box 2036
Oklahoma City, OK 73101

203. Payment of the civil penalty owed to the State of Wyoming under Paragraphs 200(b) and (c) will be made by certified or corporate check made payable to the "Wyoming Department of Environmental Quality" and mailed to:

Wyoming Attorney General's Office
Attn: Nancy Vehr
123 Capitol Building
Cheyenne, WY 82002

204. The civil penalty set forth herein is a penalty within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), and, therefore, the Sinclair Refineries will not treat these penalty payments as tax deductible for purposes of federal, state, regional, or local law.

205. Upon the Date of Entry of the Consent Decree, the Consent Decree will constitute an enforceable judgment for purposes of post-judgment collection in accordance with Federal Rule of Civil Procedure 69, the Federal Debt Collection Procedure Act, 28 U.S.C. §§ 3001-3308, and other applicable federal authority. The United States and the Co-Plaintiffs will be deemed judgment creditors for purposes of collecting any unpaid amounts of the civil and stipulated penalties and interest.

XI. STIPULATED PENALTIES

206. For failure by a Sinclair refinery to comply with the terms of this Consent Decree, the relevant Sinclair Refinery determined to be in non-compliance will pay stipulated penalties to the United States and to the Applicable Co-Plaintiff for each failure as provided herein. Stipulated penalties will be calculated in the amounts specified in this Part. Stipulated penalties

under Paragraphs 11-14, 19-21, 31 and 32 will not start to accrue until there is non-compliance with the concentration-based, rolling average emission limits identified in those Paragraphs for five percent (5%) or more of the applicable unit's operating time during any calendar quarter. 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 will rest exclusively within the discretion of the United States or the Applicable Co-Plaintiff. Where a single event triggers more than one stipulated penalty provision in this Consent Decree, only the provision containing the higher stipulated penalty will apply. For purposes of clarity, the stipulated penalties imposed under this Section XI shall be the sole responsibility of the Sinclair Refinery deemed to be in non-compliance. No stipulated penalty may be demanded of any Sinclair Refinery Company except for violations occurring at that Sinclair Refinery.

A. Non-Compliance with Requirements for NOx Emissions Reductions from FCCUs

207. For failure to meet any emissions limit for NOx set forth in Paragraphs 11-14, per day, per unit: Seven Hundred and Fifty Dollars ($750) for each calendar day in a calendar quarter on which the short-term rolling average exceeds the applicable limit; and Two Thousand Five Hundred Dollars ($2,500) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

208. For failure to install, certify, calibrate, maintain, and/or operate a NOx , O_2, SO_2 and CO CEMS, COMS (AMP) and/or appropriate monitoring required under Paragraphs 16, 23, 34, 37, 38, 48, 49, 68.b and 75.a(3), per unit per monitored parameter per day:

Period of Delay	Penalty per day
1st through 30th day after deadline	$500
31st through 60th day after deadline	$1,000
Beyond 60th day after deadline	$2,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

B. Non-Compliance with Requirements for SO_2 Emissions Reductions from FCCUs

209. For each failure to meet SO_2 emission limits (final or interim) set forth in Paragraphs 19-21, per unit, per day: Seven Hundred and Fifty Dollars ($750) for each calendar

day in a calendar quarter on which the specified 7-day rolling average exceeds the applicable limit; Two Thousand Five Hundred Dollars ($2,500) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

210. For failure to comply with the plan required by Paragraph 24 for operating the FCCUs in the event of a Hydrotreater Outage, per unit, per day:

Period of Delay	Penalty per day
1st through 30th day after deadline	$250
31st through 60th day after deadline	$1,000
Beyond 60th day after deadline	$2,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

C. Non-Compliance with Requirements for PM Emissions Reductions from FCCUs

211. For each failure to meet applicable PM emission limits for the Sinclair Refinery's FCCUs as set forth in Paragraphs 26-28 per day, per unit: Three Thousand Dollars ($3,000) for each calendar day in a calendar quarter on which the Sinclair Refinery exceeds the emission limit.

D. Non-Compliance with Requirements for CO Emissions Reductions from FCCUs

212. For each failure to meet the applicable CO emission limits for the FCCUs as set forth in Paragraphs 31-32: Seven Hundred and Fifty Dollars ($750) for each calendar day in a calendar quarter on which the specified 1-hour rolling average exceeds the applicable limit; and Two Thousand Five Hundred Dollars ($2,500) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

E. Non-Compliance with Requirements for NSPS Applicability of FCCU Catalyst Regenerators

213. For failure to comply with NSPS Subparts A and J limits at each of the Sinclair Refineries' FCCU regenerators as required by Paragraph 35, per pollutant per day:

Period of Non-Compliance	Penalty per day

1st through 30th day	$1,000
31st through 60th day	$2,000
Beyond 60th day	$3,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

F. Non-Compliance with Requirements for NOx Emissions Reductions from Combustion Units

214. For failure to install Qualifying Controls on Combustion Units and/or to submit permit applications sufficient to comply with the requirements of Paragraphs 42, 45, 46 and/or 47, per day:

Period of Delay	Penalty per day
1st through 30th day after deadline	$2,500
31st through 60th day after deadline	$6,000
Beyond 60th day after deadline	$10,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

215. For each failure to meet NOx emission limits proposed by the Sinclair Refineries pursuant to Paragraph 42, per day, per unit: Five Hundred Dollars ($500) for each calendar day in a calendar quarter on which the emissions exceed the applicable limit.

216. For failure to submit the required permit applications or amendments to incorporate the emissions limits established pursuant to Paragraph 42: Two Thousand Dollars ($2,000) per permit application or amendment per month.

G. Non-Compliance with Requirements for SO_2 Emissions Reductions from Heaters and Boilers.

217. For burning any fuel gas that contains H_2S in excess of the applicable requirements of NSPS Subparts A and J in one or more heaters or boilers at the Sinclair Refineries after the date set forth in this Decree on which the respective heater or boiler becomes an "affected facility" subject to NSPS Subparts A and J, per event, per day in a calendar quarter:

Period of Non-Compliance	Penalty per day
1st through 30th day	$2,500
Beyond 31st day	$5,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

218. For burning Fuel Oil in a manner inconsistent with the requirements of Paragraphs 56 and 57, per unit, per day:

Period of Non-Compliance	Penalty per day
1st through 30th day	$1,750
Beyond 31st day	$5,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

H. Non-Compliance with Requirements for NSPS Applicability of Sulfur Recovery Plants

219. For failure to comply with the NSPS Subpart J emission limits at the Sinclair Refineries' SRPs pursuant to Paragraphs 67 and 68, per unit, per day in a calendar quarter:

Period of Non-Compliance	Penalty per day
1st through 30th day	$1,000
31st through 60th day	$2,000
Over 60 days	$3,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

220. For failure to eliminate, control, and/or include and monitor all sulfur pit emissions in accordance with the requirements of Paragraph 69, per unit, per day:

Period of Non-Compliance	Penalty per day
1st through 30th day	$1,000
31st through 60th day	$1,750
Beyond 60th day	$4,000 or an amount equal to 1.2 times the economic benefit of delayed compliance whichever is greater

221. For failure to develop and comply with the Preventive Maintenance and Operation Plan as specified in Paragraph 70, per Refinery, per day:

Period of Delay or Non-Compliance	Penalty per day
1st through 30th day after deadline	$500
31st through 60th day	$1,500
Over 60 days	$2,000

I. Non-Compliance with Requirements for NSPS Applicability of Flaring Devices

222. For failure to comply with the NSPS Subpart J emission limits at the Flaring Device, when and as required by Paragraphs 75 and 76, per day in a calendar quarter:

Period of Non-Compliance	Penalty per day
1st through 30th day	$1,000
31st through 60th day	$2,000
Over 60 days	$3,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

223. For failure to comply with the compliance method selected by the Sinclair Refineries pursuant to Paragraph 75 for a Flaring Device listed on Appendix A after the dates set forth in Paragraph 75(a) – (c):

Period of Delay	Penalty per day
1st through 30th day after deadline	$500
31st through 60th day	$1,500
Over 60 days	$2,000

J. Non-Compliance with Requirements for Control of Acid Gas Flaring and Tail Gas Incidents

224. For AG Flaring Incidents and/or Tail Gas Incidents for which Section V.J. makes the Sinclair Refineries liable for stipulated penalties:

Tons Emitted in AG Flaring Incident	Length of Time from Commencement of Flaring within the AG Flaring Incident to Termination of Flaring within the AG Flaring Incident is 3 hours or less	Length of Time from Commencement of Flaring within the AG Flaring Incident to Termination of Flaring within the AG Flaring Incident is greater than 3 hours but less than or equal to 24 hours	Length of Time from Commencement of Flaring within the AG Flaring Incident to Termination of Flaring within the AG Flaring Incident is greater than 24 hours
5 Tons or Less	$500 per ton	$750 per ton	$1000 per ton
Greater than 5 tons, but less than or equal to 15 tons	$1,200 per ton	$1,800 per ton	$2,300 per ton, up to, but not exceeding, $27,500 in any one calendar day
Greater than 15 tons	$1,800 per ton, up to, but not exceeding, $27,500 in any one calendar day	$2,300 per ton, up to, but not exceeding, $27,500 in any one calendar day	$27,500 per calendar day

For purposes of calculating stipulated penalties pursuant to this Paragraph 224, only one cell within the matrix will apply. Thus, for example, for a Flaring Incident in which the flaring starts at 1:00 p.m. and ends at 3:00 p.m., and for which 14.5 tons of sulfur dioxide are emitted,

the penalty would be $17,400 (14.5 x $1,200); the penalty would not be $13,900 [(5 x $500) + (9.5 x $1,200)]. For purposes of determining which column in the table set forth in this Paragraph applies under circumstances in which flaring occurs intermittently during a Flaring Incident, the flaring will be deemed to commence at the time that the flaring that triggers the initiation of a Flaring Incident commences, and will be deemed to terminate at the time of the termination of the last episode of flaring within the Flaring Incident. Thus, for example, for flaring within a Flaring Incident that (i) starts at 1:00 p.m. on Day 1 and ends at 1:30 p.m. on Day 1; (ii) recommences at 4:00 p.m. on Day 1 and ends at 4:30 p.m. on Day 1; (iii) recommences at 1:00 a.m. on Day 2 and ends at 1:30 a.m. on Day 2; and (iv) no further flaring occurs within the Flaring Incident, the flaring within the Flaring Incident will be deemed to last 12.5 hours – not 1.5 hours – and the column for flaring of "greater than 3 hours but less than or equal to 24 hours" will apply.

K. Non-Compliance with Requirements for Acid Gas Flaring, Tail Gas and Hydrocarbon Flaring Incidents

225. For failure to timely submit any report required by Section V.J. and or V.K. or for submitting any report that does not substantially conform to its requirements:

Period of Delay	Penalty per day
1st through 30th day after deadline	$750
31st through 60th day after deadline	$1,500
Beyond 60th day after deadline	$3,000

226. For failure to complete any corrective action with respect to Acid Gas Flaring, Tail Gas or Hydrocarbon Flaring Incident under Paragraph 80 in accordance with the schedule for such corrective action proposed or agreed to by the Sinclair Refineries or imposed on the Sinclair Refineries pursuant to the dispute resolution provisions of this Decree (with any such extensions thereto as to which EPA and the Sinclair Refineries may agree in writing):

Period of Delay	Penalty per day
1st through 30th day after deadline	$1,000
31st through 60th day after deadline	$2,000
Beyond 60th day after deadline	$5,000 or 1.2 times the economic benefit resulting from the Sinclair Refinery's failure to complete corrective action
Beyond 60th day	$3,000

L. Non-Compliance with Requirements for Benzene Waste Operations NESHAP Program Enhancements

227. For failure to comply with the requirements of Paragraphs 96 and 97, per day:

Period of Non-Compliance	Penalty per day
1st through 30th day	$1,000
31st through 60th day	$2,000
Beyond 60th day	$3,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

228. For failure to complete the BWON Compliance Review and Verification Reports as required by Paragraphs 98 and 99 and, if necessary, 100 and 101 – Seven Thousand Five Hundred Dollars ($7,500) per month.

229. For failure to submit a plan that provides for actions necessary to correct non-compliance as required by Paragraph 103 or 104 or for failure to implement the actions necessary to correct non-compliance and to certify compliance as required by Paragraph 105:

Period of Delay	Penalty per day
1st through 30th day after deadline	$1,250
31st through 60th day after deadline	$3,000
Beyond 60th day	$5,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

230. For failure to comply with the requirements set forth in Paragraphs 106-116 for use, monitoring and replacement of carbon canisters: One Thousand Dollars ($1,000) per incident of non-compliance, per day.

231. For failure to submit or maintain any records or materials required by Paragraph 117: Two Thousand Dollars ($2,000) per record or submission.

232. For failure to establish an annual review program to identify new benzene waste streams as required by Paragraph 118: Two Thousand Five Hundred Dollars ($2,500) per month.

233. For failure to perform laboratory audits as required by Paragraphs 119-123: Five Thousand Dollars ($5,000) per month, per audit.

234. For failure to implement the training requirements as set forth in Paragraphs 125-127: Ten Thousand Dollars ($10,000) per quarter.

235. For failure to meet the applicable control standards of Subpart FF for waste management units handling non-exempt, non-aqueous wastes as required by Paragraph 129: Ten Thousand Dollars ($10,000) per month per waste management unit.

236. For failure to submit any plans or other deliverables required by Paragraphs 131-138 or for failure to comply with the requirements of Paragraph 139, when applicable, for retaining third-party assistance: Ten Thousand Dollars ($10,000) per month.

237. For failure to conduct sampling in accordance with the sampling plans required by Paragraphs 132-134: Five Thousand Dollars ($5,000) per week, per stream, or Thirty Thousand Dollars ($30,000) per quarter, per stream, whichever is greater, but not to exceed One Hundred and Fifty Thousand Dollars ($150,000) per quarter.

238. For failure to conduct monthly visual inspections of all Subpart FF water traps as required by Paragraph 140(a): Five Hundred Dollars ($500) per drain not inspected.

239. For failure to identify/mark segregated stormwater drains as required in Paragraph 140(b): One Thousand Dollars ($1,000) per week, per drain.

240. For failure to monitor Subpart FF conservation vents as required by Paragraph 140(c): Five Hundred Dollars ($500) per vent not monitored.

241. For failure to conduct monitoring of the controlled oil-water separators in benzene service as required by Paragraph 140(d): One Thousand Dollars ($1,000) per month, per unit.

242. For failure to submit the written deliverables required by Paragraphs 141-142: One Thousand Dollars ($1,000) per week, per deliverable.

243. If it is determined through federal or state investigation that the Sinclair Refineries have failed to include all benzene waste streams in its TAB calculation submitted pursuant to Paragraphs 98-101, the Sinclair Refineries will pay the following, per waste stream:

Waste Stream	Penalty
for waste streams < 0.03 Mg/yr	$250
for waste streams between 0.03 and 0.1 Mg/yr	$1,000
for waste streams between 0.1 and 0.5 Mg/yr	$5,000
for waste streams > 0.5 Mg/yr	$10,000

M. Non-Compliance with Requirements for Leak Detection and Repair Program Enhancements

244. For failure to develop an LDAR Program as required by Paragraph 150: Three Thousand Five Hundred Dollars ($3,500) per week.

245. For failure to implement the training programs specified in Paragraph 152(a)-(c): Ten Thousand Dollars ($10,000) per month, per program.

246. For failure to conduct any of the audits required by Paragraphs 153-158: Five Thousand Dollars ($5,000) per month, per audit.

247. For failure to implement any actions necessary to correct non-compliance as required by Paragraph 158:

Period of Delay	Penalty per day
1st through 30th day after deadline	$1,250
31st through 60th day after deadline	$3,000
Beyond 60th day	$5,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

248. For failure to perform monitoring utilizing the lower internal leak definitions as specified in Paragraphs 159-161: One Hundred Dollars ($100) per component, but not greater than Ten Thousand Dollars ($10,000) per month, per process unit.

249. For failure to repair and re-monitor leaks, as required by Paragraph 163, in excess of the lower leak definitions specified in Paragraphs 159-161: Five Hundred Dollars ($500) per component, but not greater than Ten Thousand Dollars ($10,000) per month.

250. For failure to implement the "initial attempt" repair program in Paragraph 164: One Hundred Dollars ($100) per valve, but not greater than Ten Thousand Dollars ($10,000) per month.

251. For failure to implement and comply with the LDAR monitoring program as required by Paragraphs 165 and 166: One Hundred Dollars ($100) per component, but not greater than Ten Thousand Dollars ($10,000) per month, per unit.

252. For failure to use dataloggers or maintain electronic data as required by Paragraphs 168 and 169: Five Thousand Dollars ($5,000) per month.

253. For failure to implement the QA/QC procedures described in Paragraph 170: Ten Thousand Dollars ($10,000) per month.

254. For failure to designate and/or maintain an individual as accountable for LDAR performance as required in Paragraph 171 or for failure to implement the maintenance tracking program in Paragraph 172: Thirty-Seven Hundred and Fifty Dollars ($3,750) per week.

255. For failure to conduct the calibration drift assessments or remonitor valves and pumps based on calibration drift assessments in Paragraphs 173 and 174: One Hundred Dollars ($100) per missed event.

256. For failure to comply with the requirements for repair set forth at Paragraphs 175 and 176: Five Thousand Dollars ($5,000) per valve or pump, per incident of non-compliance.

257. For failure to comply with the requirement for chronic leakers set forth in Paragraph 177: Five Thousand Dollars ($5,000) per valve.

258. For failure to submit any written deliverables required by Paragraphs 178 and 179: One Thousand Dollars ($1,000) per week, per report.

259. If it is determined through a federal, state, regional, or local investigation that a Sinclair Refinery has failed to include any valves or pumps in its LDAR program, the Sinclair Refinery will pay One Hundred Seventy-Five Dollars ($175) per component that they failed to include.

N. Reserved.

O. General Reporting Requirements

260. For each failure to submit a written deliverables (unless a more specific stipulated penalty applies), per day per deliverable:

Period of Delay	Penalty per day
1st through 30th day after deadline	$200
31st through 60th day after deadline	$500
Beyond 60th day	$1,000

P. Non-Compliance with Requirements Related to Incorporating Consent Decree Requirements into Federally-Enforceable Permits

261. For each failure to submit an application as required by Paragraph 180 or 181:

Period of Non-Compliance	Penalty per day
1st through 30th day after deadline	$800
31st through 60th day after deadline	$1,500
Beyond 60th day	$3,000

Q. Non-Compliance with Requirements Related to Supplemental/ Beneficial Environmental Projects

262. (a) For failure to comply with any of the requirements of Paragraphs 193-198:

Period of Non-Compliance	Penalty per day
1st through 30th day after deadline	$1,000
31st through 60th day after deadline	$2,000
Beyond 60th day after deadline	$5,000

(b) For failure to timely complete implementation of the SEPs/BEPs required by Paragraphs 194 or 195:

Period of Non-Compliance	Penalty per day
1st through 30th day after deadline	$1,000
31st through 60th day after deadline	$1,500
Beyond 60th day after deadline	$2,000

R. Non-Compliance with Requirements for Reporting and Recordkeeping

263. For failure to submit reports as required by Part V, VII and/or IX, per report, per day:

Period of Delay	Penalty per day
1st through 30th day after deadline	$300
31st through 60th day after deadline	$1,000
Beyond 60th day	$2,000

S. Non-Compliance with Requirements for Payment of Civil Penalties

264. For the Sinclair Refinery's failure to pay the civil penalties as specified in Part X of this Consent Decree, the Sinclair Refineries will be liable for Fifteen Thousand Dollars ($15,000) per day plus interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a).

T. General Provisions Related to Stipulated Penalties

265. Demand for Stipulated Penalties. Each Sinclair Refinery will pay stipulated penalties upon written demand by the United States or the Applicable Co-Plaintiff by no later than sixty (60) days after the Sinclair Refinery receives such demand. Demand from one agency will be deemed a demand from all applicable agencies, but the agencies will consult with each other prior to making a demand. A demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the stipulated penalty amount that EPA or the Applicable Co-Plaintiff 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. After consultation with each other, the United States and the Applicable Co-Plaintiff may, in their unreviewable discretion, waive payment of any portion of stipulated penalties that may accrue under this Consent Decree.

266. Payment of Stipulated Penalties. Stipulated penalties owed by any Sinclair Refinery will be paid 50% to the United States and 50% to the Applicable Co-Plaintiff. Stipulated penalties owing to the United States of under Ten Thousand Dollars ($10,000) will be paid by check and made payable to "U.S. Department of Justice," referencing DOJ Number 90-5-2-1-07793, and delivered to the U.S. Attorney's Office in the District of Wyoming. Stipulated penalties owing to the United States of Ten Thousand Dollars ($10,000) or more and stipulated penalties owing to Co-Plaintiff Oklahoma or Wyoming will be paid in the manner set forth in Part X (Civil Penalty) of this Consent Decree.

267. Stipulated Penalties Dispute. Stipulated penalties will begin to accrue on the day after performance is due or the day a violation occurs, whichever is applicable, and will continue to accrue until performance is satisfactorily completed or until the violation ceases. However, in the event of a dispute over stipulated penalties, stipulated penalties will not accrue commencing upon the date that the relevant Sinclair Refinery files a petition with the Court under Paragraph 287 if the Sinclair Refinery has placed the disputed amount demanded in a commercial escrow account with interest. If the dispute thereafter is resolved in the relevant Sinclair Refinery's favor, the escrowed amount plus accrued interest will be returned to the Sinclair Refinery; otherwise, EPA and the Applicable Co-Plaintiff will be entitled to the amount that was determined to be due by the Court, plus the interest that has accrued in the escrow account on such amount.

268. The United States and the Co-Plaintiffs reserve the right to pursue any other non-monetary remedies to which they are legally entitled, including but not limited to, injunctive relief, for the Sinclair Refinery's violations of this Consent Decree. Where a violation of this Consent Decree is also a violation of the Clean Air Act, its regulations, or a federally-enforceable state law, regulation, or permit, the United States will not seek civil penalties where it already has demanded and secured stipulated penalties from the Sinclair Refinery for the same violations nor will the United States demand stipulated penalties from the Sinclair Refinery for a Consent Decree violation if the United States has commenced litigation under the Clean Air Act for the same violations. Where a violation of this Consent Decree is also a violation of state law, regulation or a permit, the Applicable Co-Plaintiff will not seek civil penalties where it already has demanded and/or secured stipulated penalties from the Sinclair Refinery for the same violations, nor will the Applicable Co-Plaintiff demand stipulated penalties from the Sinclair Refinery for a Consent Decree violation if the Applicable Co-Plaintiff has commenced litigation under the Clean Air Act for the same violations.

XII. INTEREST

269. The Sinclair Refineries will be liable for interest on the unpaid balance of the civil penalty specified in Part X, and for interest on any unpaid balance of stipulated penalties to be paid in accordance with Part XI. All such interest will accrue at the rate established pursuant to 28 U.S.C. § 1961(a) -- *i.e.*, a rate equal to the coupon issue yield equivalent (as determined by

the Secretary of Treasury) of the average accepted auction price for the last auction of 52-week U.S. Treasury bills settled prior to the Date of Lodging of the Consent Decree. Interest will be computed daily and compounded annually. Interest will be calculated from the date payment is due under the Consent Decree through the date of actual payment. For purposes of this Paragraph 269, interest pursuant to this Paragraph will cease to accrue on the amount of any stipulated penalty payment made into an interest bearing escrow account as contemplated by Paragraph 267 of the Consent Decree. Monies timely paid into escrow will not be considered to be an unpaid balance under this Part.

XIII. RIGHT OF ENTRY

270. Any authorized representative of EPA or the Applicable Co-Plaintiff, upon presentation of credentials, will have a right of entry upon the premises of the facilities of the Sinclair Refineries at any reasonable time for the purpose of monitoring compliance with the provisions of this Consent Decree, including inspecting plant equipment and systems, and inspecting all records maintained by the Sinclair Refineries required by this Consent Decree or deemed necessary by EPA or the Applicable Co-Plaintiff to verify compliance with this Consent Decree. Except where other time periods specifically are noted, the Sinclair Refineries will retain such records for the period of the Consent Decree. Nothing in this Consent Decree will limit the authority of EPA or the Applicable Co-Plaintiff to conduct tests, inspections, or other activities under any statutory or regulatory provision.

XIV. *FORCE MAJEURE*

271. If any event occurs or fails to occur which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, STRC, SWRC or SCRC will notify EPA and the Applicable Co-Plaintiff in writing as soon as practicable, but in any event within twenty (20) business days of the date when the Sinclair Refineries first knew of the event or should have known of the event by the exercise of due diligence. In this notice, the relevant Refinery will specifically reference this Paragraph and describe the anticipated length of time the delay may persist, the cause or causes of the delay, and the measures taken or to be taken by the Refinery to prevent or minimize the delay and the schedule by which those measures will be implemented. Each Refinery will take all reasonable

steps to avoid or minimize such delays. The notice required by this Part will be effective upon the mailing of the same by overnight mail or by certified mail, return receipt requested, to the Applicable EPA Regional Office as specified in Paragraph 341.

272. Failure by the STRC, SWRC or SCRC to substantially comply with the notice requirements of Paragraph 271 will render this Part XIV voidable by the United States, in consultation with the Applicable Co-Plaintiff, as to the specific event for which the relevant Refinery has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.

273. The United States, after consultation with the Applicable Co-Plaintiff, will notify the relevant Refinery in writing regarding its claim of a delay or impediment to performance within forty-five (45) days of receipt of the *force majeure* notice provided under Paragraph 271.

274. If the United States, after consultation with the Applicable Co-Plaintiff, agrees that the delay or impediment to performance has been or will be caused by circumstances beyond the control of the relevant Refinery including any entity controlled by the Refinery and that the Refinery could not have prevented the delay by the exercise of due diligence, the appropriate Parties will stipulate in writing to an extension of the required deadline(s) for all requirement(s) affected by the delay by a period equivalent to the delay actually caused by such circumstances. Such stipulation will be treated as a non-material modification to the Consent Decree pursuant to Paragraph 345. The relevant Refinery will not be liable for stipulated penalties for the period of any such delay.

275. If the United States, after consultation with the Applicable Co-Plaintiff, does not accept the Refinery's claim of a delay or impediment to performance, the relevant Refinery must submit the matter to the Court for resolution to avoid payment of stipulated penalties, by filing a petition for determination with the Court by no later than forty-five (45) days after receipt of the notice in Paragraph 273. Once the Refinery has submitted this matter to the Court, the United States and the Applicable Co-Plaintiff will have forty-five (45) business days to file their responses to the petition. If the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of the relevant Refinery including any entity controlled by the Refinery and that the delay could not have been prevented

by the Refinery by the exercise of due diligence, the relevant Refinery will be excused as to that event(s) and delay (including stipulated penalties), for a period of time equivalent to the delay caused by such circumstances.

276. Each Refinery will bear the burden of proving that any delay of any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond its control, including any entity controlled by it, and that it could not have prevented the delay by the exercise of due diligence. Each Refinery will also bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date or dates.

277. Unanticipated or increased costs or expenses associated with the performance of a Refinery's obligations under this Consent Decree will not constitute circumstances beyond its control, or serve as the basis for an extension of time under this Part XIV.

278. Notwithstanding any other provision of this Consent Decree, the Parties do not intend that a Refinery's serving of a *force majeure* notice or the Parties' inability to reach agreement will cause this Court to draw any inferences nor establish any presumptions adverse to any Party.

279. As part of the resolution of any matter submitted to this Court under this Part XIV, the appropriate Parties by agreement, or the Court, by order, may in appropriate circumstances extend or modify the schedule for completion of work under the Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the United States or approved by this Court. The Refinery will be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

XV. RETENTION OF JURISDICTION/DISPUTE RESOLUTION

280. This Court will retain jurisdiction of this matter for the purposes of implementing and enforcing the terms and conditions of the Consent Decree and for the purpose of adjudicating all disputes of the Consent Decree between the United States and the Co-Plaintiffs

and the Sinclair Refineries that may arise under the provisions of the Consent Decree, until the Consent Decree terminates in accordance with Part XVIII of this Consent Decree.

281. The dispute resolution procedure set forth in this Part XV will be available to resolve any and all disputes arising under this Consent Decree, provided that the Party making such application has made a good faith attempt to resolve the matter with the other Party.

282. The dispute resolution procedure required herein will be invoked upon the giving of written notice by one of the Parties to this Consent Decree to another advising the other appropriate Party(ies) of a dispute pursuant to this Part XV. The notice will describe the nature of the dispute, and will state the noticing Party's position with regard to such dispute. The Party or Parties receiving such notice will acknowledge receipt of the notice and the Parties will expeditiously schedule a meeting to discuss the dispute informally.

283. Disputes submitted to dispute resolution will, in the first instance, be the subject of informal negotiations between the Parties. Such period of informal negotiations will not extend beyond ninety (90) calendar days from the date of the first meeting between representatives of the Parties, unless the Parties agree in writing that this period should be extended. Failure by the parties to extend the informal negotiation period in writing will not terminate the informal negotiation period provided that the parties are continuing to negotiate in good faith.

284. Informal negotiations will cease upon either: (a) the Sinclair Refinery's submission of a request to the United States and the Applicable Co-Plaintiff of a written summary of its/their position regarding the dispute; or (b) the United States' and/or the Applicable Co-Plaintiff's submission to the Sinclair Refinery of a written summary of its/their position.

285. Under the circumstances of Paragraph 284(a), if the United States and/or the Applicable Co-Plaintiff respond to the Sinclair Refinery's request within sixty (60) days of receipt, then the position advanced by the United States and/or the Applicable Co-Plaintiff, as applicable, will be considered binding unless, within sixty (60) calendar days of the Sinclair Refinery's receipt of the written summary, the Sinclair Refinery files with the Court a petition

which describes the nature of the dispute. The United States or the Applicable Co-Plaintiff will respond to the petition within sixty (60) days of filing. In resolving a dispute between the parties under these circumstances, the position of the United States and the Applicable Co-Plaintiff will be upheld if supported by substantial evidence in the administrative record, which may be supplemented for good cause shown.

286. Under the circumstances of Paragraph 284(a), if the United States and/or the Applicable Co-Plaintiff do not respond to the Sinclair Refinery's request for a written summary within sixty (60) days of receipt, then the Sinclair Refinery will file with the Court a petition which describes the nature of the dispute within one-hundred five (105) days after submitting the initial request to the United States and the Applicable Co-Plaintiff. Applicable principles of law will govern the resolution of the dispute.

287. Under the circumstances of Paragraph 284(b), the position advanced by the United States and/or the Applicable Co-Plaintiff, as applicable, will be considered binding unless, within sixty (60) calendar days of the Sinclair Refinery's receipt of the written summary, the Sinclair Refinery files with the Court a petition which describes the nature of the dispute. The United States or the Applicable Co-Plaintiff will respond to the petition within sixty (60) days of filing. In resolving a dispute between the parties under these circumstances, the position of the United States and the Applicable Co-Plaintiff will be upheld if supported by substantial evidence in the administrative record, which may be supplemented for good cause shown.

288. In the event that the United States and the Applicable Co-Plaintiff make differing determinations or take differing actions that affect the Sinclair Refinery's rights or obligations under this Consent Decree, the final decisions of the United States will take precedence.

289. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set forth in this Part XV may be shortened upon motion of one of the Parties to the dispute.

290. The Parties do not intend that the invocation of this Part XV by a Party cause the Court to draw any inferences nor establish any presumptions adverse to either Party as a result of invocation of this Part.

291. As part of the resolution of any dispute submitted to dispute resolution, the Parties, by agreement, or this 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 the work that occurred as a result of dispute resolution. The Sinclair Refinery will be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

XVI. EFFECT OF SETTLEMENT

292. Definitions. For purposes of Part XVI, the following definitions apply:

a. "Applicable NSR/PSD Requirements" shall mean: PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. § 52.21; "Plan Requirements for Non-Attainment Areas" at Part D of Subchapter I of the Act, 42 U.S.C. §§ 7502-7503 and the regulations promulgated thereunder at 40 C.F.R. §§ 51.165 (a) and (b); Title 40, Part 51, Appendix S; and 40 C.F.R. § 52.24; any applicable, federally-enforceable state, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above; Any applicable state, regional, or local regulations enforceable by Plaintiff-Intervenors that implement, adopt, or incorporate the specific federal regulatory requirements identified above.

b. "Applicable NSPS Subparts A and J Requirements" shall mean the standards, monitoring, testing, reporting and recordkeeping requirements, found at 40 C.F.R. §§ 60.100 through 60.109 (Subpart J), relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart J.

c. "Post-Lodging Compliance Dates" shall mean any dates in this Part XVI after the Date of Lodging. Post-Lodging Compliance Dates include dates certain (*e.g.*, "December 31, 2004"), dates after Lodging represented in terms of "months after Lodging" (*e.g.*, "Twelve Months after the Date of Lodging"), and dates after Lodging represented by actions taken (*e.g.*, "Date of Certification"). The Post-Lodging Compliance Dates represent the dates by which work is required to be completed or an emission limit is required to be met under the applicable provisions of this Consent Decree.

293-313. Reserved.

314. Liability Resolution For Specified Notices of Violation. Defendants' performance of the obligations set forth in Paragraphs 200 - 205 (Civil Penalty) of this Consent Decree shall fully satisfy all civil liability of the Defendant to the United States and Plaintiff-Intervenors for the violations alleged in the notices of violation identified in this Paragraph through the date of lodging of the Consent Decree. Nothing in this Paragraph is intended, nor shall be construed, to operate in any way to resolve any other potential liability of the Defendant.

a. State of Wyoming Notices of Violation: NOV No. 3366-02 issued on 5/1/02; NOV No. 3426-02 issued on 11/12/02; and NOV No. 3368-02 issued on 5/21/02.

b. State of Oklahoma Notices of Violation: NOV No. 02-AQN-058 issued on 06/18/02; NOV No. 04-AQN-041 issued on 01/07/04; NOV No. 05-AQN-028 issued on 08/30/04; NOV No. 05-AQN-034 issued on 12/6/04; NOV No. 05-AQN-096 issued on 06/09/05; NOV No. 06-AQN-003 issued on 07/29/05.

315. Liability Resolution Regarding the Applicable NSR/PSD Requirements. With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of the STRC, SWRC and SCRC and Sinclair Oil Corporation to the United States and the Plaintiff-Intervenors: (1) for violations of the Applicable NSR/PSD Requirements, resulting from construction or modification of the following units that occurred prior to the Date of Lodging of the Consent Decree, that commenced and ceased prior to the Date of Lodging of the Consent Decree; and (2) for any violations of the Applicable NSR/PSD Requirements, resulting from pre-Lodging construction or modification of the following units, that commenced prior to the Date of Lodging and continued up to the following dates:

Refinery/Unit	Pollutant	Date
Casper FCCU	NOx	December 31, 2009
	SO_2	December 31, 2009
Sinclair FCCU	NOx	March 31, 2010
	SO_2	December 31, 2009
Tulsa FCCU	NOx	December 31, 2009
	SO_2	December 31, 2009

All Facilities		
Heaters and boilers listed in Appendix B	NOx	Later of the Date of Lodging or the installation of Qualifying Controls
Heaters and boilers not listed in Appendix B	NOx	Date of Lodging
All heaters and boilers	SO_2	Date of Lodging

316. Liability Resolution for PM Under the Applicable NSR/PSD Requirements. If and when the STRC, SCRC and/or the SWRC accept an emission limit of 0.5 pound PM per 1000 pounds of coke burned on a 3-hour average basis and demonstrate compliance by conducting a 3-hour performance test representative of normal operating conditions for PM emissions at the Tulsa, Casper and/or Sinclair Wyoming FCCUs, then all civil liability of the refinery accepting the limitation to the United States and the Plaintiff-Intervenors shall be resolved for violations of the Applicable NSR/PSD Requirements relating to PM emissions at the relevant Refinery resulting from construction or modification of the FCCU for that Refinery that occurred prior to the Date of Lodging of the Consent Decree that either ceased prior to the Date of Lodging of the Consent Decree or continued up to the date on which the Refinery demonstrates compliance with such PM emission limit for that Refinery.

317. Liability Resolution for CO Under the Applicable NSR/PSD Requirements. If and when a Sinclair Refinery accepts an emission limit of 100 ppmvd of CO at 0% O_2 on an 365-

day rolling average basis and demonstrates compliance using CEMS at the relevant Refinery, then all civil liability of that Sinclair Refinery to the United States and the Plaintiff-Intervenors shall be resolved for violations of the Applicable NSR/PSD Requirements relating to CO emissions at the relevant Refinery resulting from construction or modification of the FCCU for that Refinery that occurred prior to the Date of Lodging of the Consent Decree and that either ceased prior to the Date of Lodging or continued up to the date on which the Sinclair Refinery demonstrates compliance with such CO emission limit for that Refinery.

318. Reservation of Rights: Release for Violations Continuing After the Date of Lodging Can Be Rendered Void. Notwithstanding Paragraph 315, the release of liability by the United States and the Plaintiff-Intervenors to the Sinclair Refineries for violations of the Applicable NSR/PSD Requirements during the period between the Date of Lodging of the Consent Decree and the Post-Lodging Compliance Dates shall be rendered void with respect to any Sinclair Refinery that materially fails to comply with the obligations and requirements of Paragraphs 11-14 and 19-21; provided however, that the release identified above shall not be rendered void if the Sinclair Refinery remedies such material failure and pays any stipulated penalties due as a result of such material failure. The voidance of the release of liability with respect to one Sinclair Refinery shall not affect the release of liability with respect to any other Sinclair Refinery.

319. Exclusions from Release Coverage: Construction and/or Modification Not Covered. Notwithstanding Paragraphs 315-317, nothing in this Consent Decree precludes the United States and/or the Plaintiff-Intervenors from seeking from the Sinclair Refineries injunctive relief, penalties or other appropriate relief for violations by the Sinclair Refineries of the Applicable NSR/PSD Requirements resulting from construction or modification that: (i) commenced prior to the Date of Lodging of the Consent Decree for pollutants or units not covered by the Consent Decree; or (ii) commences after the Date of Lodging of the Consent Decree.

320. Evaluation of Applicable PSD/NSR Requirements Must Occur. Increases in emissions from units covered by this Consent Decree, where the increases result from the Post-Lodging construction or modification of any units within the Sinclair Refineries, are beyond the

scope of the release in Paragraphs 315-317, and the Sinclair Refineries must evaluate any such increases in accordance with the Applicable PSD/NSR Requirements.

321. New Source Performance Standards Subparts A and J -Resolution of Liability. Entry of this Consent Decree shall resolve all civil liability of the Sinclair Refineries to the United States and the Plaintiff-Intervenors for violations of the Applicable NSPS Subparts A and J Requirements, arising from emissions of the following pollutants from the following units, from the date that the claims of the United States and the Plaintiff-Intervenors accrued through the following dates:

Unit	Pollutant	Date
Casper FCCU	SO2 PM, CO and Opacity	December 31, 2009 Date of Lodging
Sinclair FCCU	SO2 PM, CO and Opacity	December 31, 2009 Date of Lodging
Tulsa FCCU	SO2 PM, CO and Opacity	December 31, 2009 Date of Lodging
All Refineries		
All heaters and boilers	SO_2	Date of Lodging (or Date in Appendix B if other than Date of Lodging)
All SRPs	SO_2	Date of Lodging
All Flaring and Fuel Gas and Combustion Devices	SO_2	Date of Lodging

322. Reservation of Rights: Release for NSPS Violations Occurring After the Date of Lodging Can be Rendered Void. Notwithstanding the resolution of liability in Paragraph 321, the release of liability by the United States and the Plaintiff-Intervenors to the Sinclair Refineries for violations of any Applicable NSPS Subparts A and J Requirements that occurred between the Date of Lodging and the Post-Lodging Compliance Dates shall be rendered void with respect to any Sinclair Refinery that materially fails to comply with the obligations and requirements of Section V.E., V.G., V.H. and/or V.I.; provided however, that the release in Paragraph 321 shall not be rendered void if the relevant Sinclair Refinery remedies such material failure and pays any

stipulated penalties due as a result of such material failure. The voidance of the release of liability with respect to one Sinclair Refinery shall not affect the release of liability with respect to any other Sinclair Refinery.

323. Prior NSPS Applicability Determinations. Nothing in this Consent Decree shall affect the status of any FCCU, fuel gas combustion device, or sulfur recovery plant currently subject to NSPS as previously determined by any federal or state or any applicable permit.

324. LDAR and Benzene Waste NESHAP Resolution of Liability. Entry of this Consent Decree shall resolve all civil liability of the Sinclair Refineries to the United States and the Plaintiff-Intervenors for violations of the following statutory and regulatory requirements that (1) commenced and ceased prior to the Date of Entry of the Consent Decree; and (2) commenced prior to the Date of Entry of the Consent Decree and continued past the Date of Entry, provided that the events giving rise to such violations are identified and addressed by the Sinclair Refineries as required under Paragraphs 154 and 158 for LDAR requirements and under Paragraphs 98-105 (if applicable) for Benzene Waste NESHAP requirements:

a. LDAR. For all equipment in light liquid service and gas and/or vapor service, the LDAR requirements promulgated pursuant to Sections 111 and 112 of the Clean Air Act, and codified at 40 C.F.R. Part 60, Subparts VV and GGG; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H, and CC;

b. Benzene Waste NESHAP. The National Emission Standard for Benzene Waste Operations, 40 C.F.R. Part 61, Subpart FF, promulgated pursuant to Section 112(e) of the Act, 42 U.S.C. § 7412(e);

c. Any applicable, federally-enforceable state regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified in this Paragraph; and

d. Any applicable state regulations enforceable by the Plaintiff-Intervenors that implement, adopt, or incorporate the specific federal regulatory requirements identified in this Paragraph, including O.A.C. § 252:100-39-15 (Oklahoma) and W.A.Q.S.R. 5 § 2(b) & 3(b) (Wyoming) .

325. Reservation of Rights. Notwithstanding the resolution of liability in Paragraph 324, nothing in this Consent Decree precludes the United States and/or the Plaintiff-Intervenors from seeking from the Sinclair Refineries injunctive and/or other equitable relief or civil

penalties for violations by the Sinclair Refineries of Benzene Waste NESHAP and/or LDAR requirements that (A) commenced prior to the Date of Entry of this Consent Decree and continued after the Date of Entry if the Sinclair Refineries fail to identify and address such violations as required by Paragraphs 154, 158 and 98-105; or (B) commenced after the Date of Entry of the Consent Decree.

326. Reserved.

327. Liability under EPCRA/CERCLA for Pre-Lodging Acid Gas Flaring Incidents or Hydrocarbon Gas Flaring Incidents. Entry of this Consent Decree shall resolve all civil liability of the Sinclair Refineries to the United States and the Plaintiff-Intervenors for violations of EPCRA or Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), for incidents identified in the flaring history required by Paragraph 77.

328. Audit Policy. Nothing in this Consent Decree is intended to limit or disqualify the Sinclair Refineries, on the grounds that information was not discovered and supplied voluntarily, from seeking to apply EPA's Audit Policy or any state audit policy to any violations or non-compliance that the Sinclair Refineries discover during the course of any investigation, audit, or enhanced monitoring that the Sinclair Refineries are required to undertake pursuant to this Consent Decree.

329. Claim/Issue Preclusion. In any subsequent administrative or judicial proceeding initiated by the United States or the Co-Plaintiff for injunctive relief, penalties, or other appropriate relief relating to the Sinclair Refineries for violations of the PSD/NSR, NSPS, NESHAP, and/or LDAR requirements, not identified in Paragraph 80 of the Consent Decree and/or the Complaint:

a. The Sinclair Refineries shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, or claim-splitting. Nor may the Sinclair Refineries assert, or maintain, any other defenses based upon any contention that the claims raised by the United States or the Plaintiff-Intervenors in the subsequent proceeding were or should have been brought in the instant case. Nothing in the

preceding sentences is intended to affect the ability of the Sinclair Refineries to assert that the claims are deemed resolved by virtue of this Part of the Consent Decree.

b. Except as set forth in Paragraph 329.a., above, the United States and the Plaintiff-Intervenors may not assert or maintain that this Consent Decree constitutes a waiver or determination of, or otherwise obviates, any claim or defense whatsoever, or that this Consent Decree constitutes acceptance by the Sinclair Refineries of any interpretation or guidance issued by EPA related to the matters addressed in this Consent Decree.

330. Imminent and Substantial Endangerment. Nothing in this Consent Decree shall be construed to limit the authority of the United States and the Plaintiff-Intervenors to undertake any action against any person to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

XVII. GENERAL PROVISIONS

331. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree will relieve the Sinclair Refineries of their obligation to comply with all applicable federal, state, regional and local laws and regulations, including but not limited to more stringent standards. In addition, nothing in this Consent Decree will be construed to prohibit or prevent the United States or Co-Plaintiffs from developing, implementing, and enforcing more stringent standards subsequent to the Date of Lodging of this Consent Decree through rulemaking, the permit process, or as otherwise authorized or required under federal, state, regional, or local laws and regulations. Subject to Part XVI (Effect of Settlement), Part XI (Stipulated Penalties), and Paragraph 333 (Permit Violations) of this Consent Decree, nothing contained in this Consent Decree will be construed to prevent or limit the rights of the United States or the Co-Plaintiffs to seek or obtain other remedies or sanctions available under other federal, state, regional or local statutes or regulations, by virtue of the Sinclair Refineries' violation of the Consent Decree or of the statutes and regulations upon which the Consent Decree is based, or for the Sinclair Refineries' violations of any applicable provision of law. This will include the right of the United States or the Co-Plaintiffs to invoke the authority of the Court to order the Sinclair Refineries' compliance with this Consent Decree in a subsequent contempt action. The requirements of this Consent Decree do not exempt the Sinclair Refineries

from complying with any and all new or modified federal, state, regional and/or local statutory or regulatory requirements that may require technology, equipment, monitoring, or other upgrades after the Date of Lodging of this Consent Decree.

332. Startup, Shutdown, Malfunction. Notwithstanding the provisions of this Consent Decree regarding startup, shutdown, and Malfunction, this Consent Decree does not exempt the Sinclair Refineries from the requirements of state laws and regulations or from the requirements of any permits or plan approvals issued to the Sinclair Refineries, as these laws, regulations, permits, and/or plan approvals may apply to startups, shutdowns, and Malfunctions.

333. Permit Violations. Nothing in this Consent Decree will be construed to prevent or limit the right of the United States or the Co-Plaintiffs to seek injunctive or monetary relief for violations of permits; provided, however, that with respect to monetary relief, the United States and the Co-Plaintiffs must elect between filing a new action for such monetary relief or seeking stipulated penalties under this Consent Decree, if stipulated penalties also are available for the alleged violation(s).

334. Failure of Compliance. The United States and the Co-Plaintiffs do not, by their consent to the entry of Consent Decree, warrant or aver in any manner that the Sinclair Refineries' complete compliance with the Consent Decree will result in compliance with the provisions of the CAA or the corollary state and local statutes. Notwithstanding the review or approval by EPA or the Co-Plaintiffs of any plans, reports, policies or procedures formulated pursuant to the Consent Decree, each Sinclair Refinery will remain solely responsible for compliance with the terms of the Consent Decree, all applicable permits, and all applicable federal, state, regional, and local laws and regulations, except as provided in Part XIV (Force Majeure).

335. Alternative Monitoring Plans. Except as otherwise specifically provided in Paragraph 54, wherever this Consent Decree requires or permits the Sinclair Refineries to submit an AMP to EPA for approval, the Sinclair Refineries will submit a complete AMP application. If an AMP is not approved, then within ninety (90) days of the Sinclair Refineries' receipt of disapproval, the Sinclair Refineries will submit to EPA for approval, with a copy to the Applicable Co-Plaintiff, a plan and schedule that provide for compliance with the applicable

monitoring requirements as soon as practicable. Such plan may include a revised AMP application, physical or operational changes to the equipment, or additional or different monitoring.

336. Service of Process. The Sinclair Refineries hereby agree to accept service of process by mail with respect to all matters arising under or relating to the Consent Decree and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to, service of a summons. The persons identified by the Sinclair Refinery at Paragraph 341 are authorized to accept service of process with respect to all matters arising under or relating to the Consent Decree.

337. Post-Lodging/Pre-Entry Obligations. Obligations of the Sinclair Refineries under this Consent Decree to perform duties scheduled to occur after the Date of Lodging of the Consent Decree, but prior to the Date of Entry of the Consent Decree, will be legally enforceable only on and after the Date of Entry of the Consent Decree. Liability for stipulated penalties, if applicable, will accrue for violation of such obligations and payment of such stipulated penalties may be demanded by the United States or the Co-Plaintiffs as provided in this Consent Decree, provided that the stipulated penalties that may have accrued between the Date of Lodging of the Consent Decree and the Date of Entry of the Consent Decree may not be collected unless and until this Consent Decree is entered by the Court.

338. Costs. Each Party to this action will bear its own costs and attorneys' fees.

339. Public Documents. All information and documents submitted by the Sinclair Refineries to EPA and the Co-Plaintiffs pursuant to this Consent Decree will be subject to public inspection in accordance with the respective statutes and regulations that are applicable to EPA and the Co-Plaintiffs, unless subject to legal privileges or protection or identified and supported as trade secrets or business confidential in accordance with the respective state or federal statutes or regulations.

340. Public Notice and Comment. The Parties agree to the Consent Decree and agree that the Consent Decree may be entered upon compliance with the public notice procedures set forth at 28 C.F.R. § 50.7, and upon notice to this Court from the United States Department of

Justice requesting entry of the Consent Decree. The United States and Co-Plaintiffs reserve the right to withdraw or withhold its consent to the Consent Decree if public comments disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate.

341. Notice. Unless otherwise provided herein, notifications to or communications between the Parties will be deemed submitted on the date they are postmarked and sent by U.S. Mail, postage pre-paid, except for notices under Part XIV and Part XV which will be sent either by overnight mail or by certified or registered mail, return receipt requested. Each report, study, notification or other communication of the Sinclair Refineries will be submitted as specified in this Consent Decree, with copies to EPA Headquarters, the applicable EPA Region, and the Applicable Co-Plaintiff. If the date for submission of a report, study, notification or other communication falls on a Saturday, Sunday or legal holiday, the report, study, notification or other communication will be deemed timely if it is submitted the next business day. Except as otherwise provided herein, all reports, notifications, certifications, or other communications required or allowed under this Consent Decree to be submitted or delivered to the United States, EPA, the Co-Plaintiffs, and the Sinclair Refineries will be addressed as follows:

As to the United States:

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. 90-5-2-1-07793

As to EPA:

Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
Mail Code 2242-A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460-0001

with a hard copy to:

Director, Air Enforcement Division
Office of Civil Enforcement
c/o Matrix New World Engineering, Inc.
120 Eagle Rock Ave., Suite 207
East Hannover, NJ 07936-3159

and an electronic copy to
csullivan@matrixneworld.com
foley.patrick@epa.gov

EPA Regions:

Region 6:

Chief
Air, Toxics, and Inspections Coordination Branch
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Region 8:

Air Program Director
c/o Scott Whitmore (8ENF-AT)
Office of Enforcement, Compliance & Environmental Justice
Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202

As to Co-Plaintiffs:

State of Oklahoma

Eddie Terrill, Director
Air Quality Division
P.O. Box 1677
Oklahoma City, OK 73101-1677

State of Wyoming

Administrator, Air Quality Division,
Wyoming Department of Environmental Quality
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

As to the Sinclair Refineries:

Sinclair Tulsa Refining Company

Mr. Mike Bellinger
Refinery Manager
P.O. Box 970
Tulsa, OK 74101

Sinclair Wyoming Refining Company

Mr. Ed Juno
Refinery Manager
P.O. Box 277
East Lincoln Highway
Sinclair, WY 82334

Sinclair Casper Refining Company

Mr. Tom Crull
Refinery Manager
P.O. Box 510
Evansville, WY 82636

With hard copies of all notices as to all Sinclair Refineries sent to

Lynn Hart, Esq.
General Counsel
Sinclair Oil Corporation
550 East South Temple
Salt Lake City, UT 84102-1005
United States of America

and

Kevin Brown
Executive Vice President, Operations
Sinclair Oil Corporation
550 East South Temple
Salt Lake City, UT 84102-1005
United States of America

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

addition, the nature and frequency of reports required by the Consent Decree may be modified by mutual consent of the Parties. The consent 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.

342. Approvals. All EPA approvals will be made in writing. All Co-Plaintiff approvals will be sent from the offices identified in Paragraph 341.

343. Opportunity for Comment by Applicable Co-Plaintiff. For all provisions of Part V where EPA approval is required, the Applicable Co-Plaintiff is entitled to provide comments to EPA and to consult with EPA regarding the issue in question.

344. Paperwork Reduction Act. The information required to be maintained or submitted pursuant to this Consent Decree is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 et seq.

345. Modification. This Consent Decree contains the entire agreement of the Parties and will not be modified by any prior oral or written agreement, representation or understanding. Prior drafts of the Consent Decree will not be used in any action involving the interpretation or enforcement of the Consent Decree. Non-material modifications to this Consent Decree will be effective when signed in writing by EPA and the Sinclair Refineries. The United States will file non-material modifications with the Court on a periodic basis. For purposes of this Paragraph, non-material modifications include but are not limited to modifications to the frequency of reporting obligations and modifications to schedules that do not extend the date for compliance with emissions limitations following the installation of control equipment or the completion of a catalyst additive program, provided that such changes are agreed upon in writing between EPA and the Sinclair Refineries. Material modifications to this Consent Decree will be in writing, signed by EPA, the Applicable Co-Plaintiff, and the Sinclair Refineries, and will be effective upon approval by the Court.

346. Effect of Shutdown. Except as provided in Section V.F., the permanent shutdown of a unit and the surrender of all permits for that unit will be deemed to satisfy all requirements of this Consent Decree applicable to that unit on and after the later of: (i) the date of the shutdown of the unit; or (ii) the date of the surrender of all permits. The permanent shutdown of

a Refinery and the surrender of all air permits for that Refinery will be deemed to satisfy all requirements of this Consent Decree applicable to that Refinery on and after the later of: (i) the date of the shutdown of the Refinery; or (ii) the date of the surrender of all permits.

XVIII. TERMINATION

347. Certification of Completion: Applicable Sections. Prior to moving for termination under Paragraph 352, a Sinclair Refinery may seek to certify completion of one or more of the following Sections/Parts of the Consent Decree applicable to that Refinery:

(a) Section V.A. - Fluid Catalytic Cracking Units (including operation of the unit for one year after completion in compliance with the emission limits established pursuant to the Consent Decree);

(b) Sections V.B. through V.E. - Fluid Catalytic Cracking Units (including operation of the unit for one year after completion in compliance with the emission limits established pursuant to this Consent Decree);

(c) Sections V.F. and V.G. – Combustion Units (including operation of the relevant units for one year after completion in compliance with the emission limit set pursuant to the Consent Decree);

(d) Sections V.H. - V.K. - SRPs and Flares;

(e) Sections V.M. and V.N. (Benzene and LDAR); and

(f) Part VIII – Supplemental Environmental Projects.

348. Certification of Completion: the Sinclair Refinery Actions. If a Sinclair Refinery concludes that any of the Sections of the Consent Decree identified in Paragraph 347 have been completed, the Sinclair Refinery may submit a written report to EPA and the Applicable Co-Plaintiff describing the activities undertaken and certifying that the applicable Section(s) have been completed in full satisfaction of the requirements of this Consent Decree, and that the Sinclair Refinery is in substantial and material compliance with all of the other requirements of the Consent Decree. The report will contain the following statement, signed by a responsible corporate official of the Sinclair Refinery:

> To the best of my knowledge, after appropriate investigation, I certify that the information contained in or accompanying this submission is 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.

349. Certification of Completion: EPA Actions. Upon receipt of the Sinclair Refinery's certification and after opportunity for comment by the Applicable Co-Plaintiff, EPA will notify the Sinclair Refinery whether the requirements set forth in the applicable Section have been completed in accordance with this Consent Decree:

(a) If EPA concludes that the requirements have not been fully complied with, EPA will notify the Sinclair Refinery as to the activities that must be undertaken to complete the applicable Section of the Consent Decree. The Sinclair Refinery will perform all activities described in the notice, subject to its right to invoke the dispute resolution procedures set forth in Part XV (Dispute Resolution); and/or

(b) If EPA concludes that the requirements of the applicable Section or Part have been completed in accordance with this Consent Decree, EPA will so certify in writing to the Sinclair Refinery. This certification will constitute the certification of completion of the applicable Section or Part for purposes of this Consent Decree.

The parties recognize that ongoing obligations under such Sections remain and necessarily continue (*e.g.*, reporting, recordkeeping, training, auditing requirements), and that the Sinclair Refinery's certification is that it is in current compliance with all such obligations.

350. Certification of Completion: No Impediment to Stipulated Penalty Demand. Nothing in Paragraphs 348 and 349 will preclude the United States or the Co-Plaintiffs from seeking stipulated penalties for a violation of any of the requirements of the Consent Decree regardless of whether a Certification of Completion has been issued under Paragraph 349(b) of the Consent Decree. In addition, nothing in this Paragraph 350 will permit a Sinclair Refinery to fail to implement any ongoing obligations under the Consent decree regardless of whether a Certification of Completion has been issued.

351. Termination: Conditions Precedent. This Consent Decree will be subject to termination upon motion by the Parties or upon motion by the Sinclair Refinery acting alone under the conditions identified in this Paragraph. Prior to seeking termination, a Sinclair

Refinery must have completed and satisfied all of the following requirements of this Consent Decree:

(a) Installation of control technology systems as specified in this Consent Decree;

(b) Compliance with all provisions contained in this Consent Decree, such compliance may be established for specific parts of the Consent Decree in accordance with Paragraphs 347-349;

(c) Payment of all penalties and other monetary obligations due under the terms of the Consent Decree; unless all penalties and/or other monetary obligations owed to the United States or the Co-Plaintiffs are fully paid as of the time of the Motion;

(d) Completion of the Supplemental/Beneficial Environmental Projects under Part VIII;

(e) Application for and receipt of permits incorporating the emission limits and standards established under this Consent Decree; and

(f) Operation for at least one year of each unit in compliance with the emission limits established herein and certification of such compliance for each unit within the first progress report following the conclusion of the compliance period.

352. Termination: Procedure. At such time as a Sinclair Refinery believes that it has satisfied the requirements for termination set forth in Paragraph 351, the Sinclair Refinery will certify such compliance and completion to the United States and the Co-Plaintiffs in accordance with the certification language of Paragraph 348. Unless either the United States or any Co-Plaintiff objects in writing with specific reasons within one-hundred twenty (120) days of receipt of the Sinclair Refinery's certification under this Paragraph, the Court may upon motion by the Sinclair Refinery order that this Consent Decree be terminated. If either the United States or any Co-Plaintiff objects to the certification by the Sinclair Refinery, then the matter will be submitted to the Court for resolution under Part XV (Retention of Jurisdiction/Dispute Resolution). In such case, the Sinclair Refinery will bear the burden of proving that this Consent Decree should be terminated.

XIX. SIGNATORIES

353. Each of the undersigned representatives certify that they are fully authorized to enter into the Consent Decree on behalf of such Parties, and to execute and to bind such Parties to the Consent Decree.

Dated this _____ day of _____, 2008.

_____

UNITED STATES DISTRICT JUDGE

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States, et al. v. Sinclair Oil Company*, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

Date: _____

RONALD J. TENPAS
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

Date: _____

JAMES D. FREEMAN
Environmental Enforcement Section
United States Department of Justice

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States, et al. v. Sinclair Oil Company*, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: _____

GRANTA Y. NAKAYAMA
Assistant Administrator for Enforcement and Compliance Assurance
United States Environmental Protection Agency

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States, et al. v. Sinclair Oil Company*, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF-INTERVENOR, STATE OF WYOMING

Date: _____

JOHN CORRA
Director
Wyoming Department of Environmental Quality

Date: _____

DAVE FINLEY
Administrator, Air Quality Division
Wyoming Department of Environmental Quality

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States, et al. v. Sinclair Oil Company*, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF-INTERVENOR, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Date: _____

_____
STEVEN A. THOMPSON
Executive Director
Oklahoma Department of Environmental Quality

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of *United States, et al. v. Sinclair Tulsa Refining Company, et al.*, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR DEFENDANT
SINCLAIR TULSA REFINING COMPANY

Date:

Peter M. Johnson
President, Sinclair Tulsa Refining Company

FOR DEFENDANT
SINCLAIR WYOMING REFINING COMPANY

Date:

Peter M. Johnson
President, Sinclair Wyoming Refining Company

FOR DEFENDANT
SINCLAIR CASPER REFINING COMPANY

Date:

Peter M. Johnson
President, Sinclair Casper Refining Company

Appendix A: List of Flaring Devices

Tulsa Refinery

- Flare 1
- Flare 2

Sinclair Refinery

- Vertical Flare
- Tulip Field Flare
- Horizontal Ground Flare

Casper Refinery

- Vertical Flare

Note: The loading rack thermal oxidizers at the Tulsa, Sinclair and Casper Refineries and the tank farm thermal oxidizer at the Casper Refinery are thermal oxidizers per 40 CFR 63 subpart CC and are not Flaring Devices.

Appendix B: List of Combustion Units (Heaters and Boilers)

	TPY Baseline
Tulsa	983.4
Sinclair	586.8
Casper	176.2
Total	1746.4

Sinclair Wyoming Refinery

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emissions estimate
		MM Btu/hr (HHV)	MM Btu/hr (HHV)	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
1	FCC Heater B2	66.0	72.7	57.6	0.098	24.7	55.65	0.098	23.9	24.3	AP-42, utilization rates from 1999 & 2000
10	Naphtha Split Htr	34.5	46.3	23.3	0.186	19.0	22.26	0.141	13.7	16.4	9/3/03 and 10/19/04 tests
13	1 Ref Htr	44.6	50.8	25.6	0.201	22.5	18.39	0.017	1.4	12.0	9/3/03 and 2/15/05 tests
14	2 Ref Htr	74.8	92.4	37.4	0.188	30.8	24.81	0.025	2.7	16.7	6/18/04 and 7/8/05 tests
15	3 Ref Htr	22.4	22.4	12.1	0.155	8.2	9.24	0.028	1.1	4.6	3/13/04 and 2/15/05 tests
16	Stabilizer Reboiler	11.1	11.1	9.6	0.098	4.1	7.65	0.022	0.7	2.4	AP-42 and 2/15/05 test
18	Crude Htr 1	66.6	60.0	45.3	0.230	45.7	43.11	0.230	43.4	44.5	Permit 30-145

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emissions estimate
		MM Btu/hr (HHV)	MM Btu/hr (HHV)	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
19	Crude Htr 2	66.6	60.0	55.4	0.230	55.8	48.33	0.230	48.7	52.2	Permit 30-145
20	583 Vacuum Htr	42.0	61.6	42.9	0.159	29.8	43.02	0.112	21.0	25.4	3/13/03 and 10/20/04 tests
23	Crude Htr F102a	43.0	60.3	40.8	0.172	30.7	38.13	0.119	19.9	25.3	(average of 3/11/03 and 3/12/03) and 10/19/04 tests
25	582 Vacuum Htr F104	45.0	61.6	31.0	0.121	16.4	26.00	0.128	14.6	15.5	9/2/03 and 10/19/04 tests
33	Alky Htr B16	56.0	79.2	35.7	0.115	18.0	41.72	0.106	19.4	18.7	9/4/03 and (average of 10/20/04 and 4/27/05) tests
35	#10 High P Boiler	100.0	189.0	65.3	0.217	62.1	60.38	0.213	56.3	59.2	(average of AP-42, 6/17/04, 12/14/04) and (average of 4/27/05, AP-42,10/12/05) tests
40	#8 High P Boiler (fuel gas)	100.0	162.0	46.3	0.201	40.8	32.68	0.204	29.1	35.0	2/27/01 test
	#8 High P Boiler (fuel oil)			22.6	0.201	19.9	26.96	0.204	24.0	22.0	2/27/01 test

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emissions estimate
		MM Btu/hr (HHV)	MM Btu/hr (HHV)	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
41	#9 High P Boiler (fuel gas)	100.0	162.0	36.8	0.212	34.3	37.12	0.203	33.1	33.7	2/28/01 test
	#9 High P Boiler (fuel oil)			30.8	0.212	28.7	24.44	0.203	21.8	25.2	2/28/01 test
42	#4, #5, #6, #7 Low P Boilers (fuel gas)	88.0	176.0	57.4	0.172	43.3	50.18	0.089	19.5	31.4	10/23/03 and 6/17/04 tests
	#4, #5, #6, #7 Low P Boilers (fuel oil)			9.2	0.367	14.8	8.80	0.367	14.2	14.5	AP-42
51	HCU Htr H3	56.0	56.0	28.4	0.064	8.0	27.67	0.053	6.5	7.2	5/21/02 and 2/15/05 tests
52	HCU Htr H4	57.0	57.0	29.5	0.053	6.8	30.86	0.053	7.2	7.0	Average of 5/2/01 tests
53	H2 plant	288.0	288.0	189.0	0.065	53.6	184.16	0.065	52.3	52.9	Average of 1/16/01 tests
26	#2 HDS Heater	28.0	33.0	24.2	0.098	10.4	22.56	0.098	9.7	10.0	AP-42
27	#3 HDS Heater	18.0	18.0	9.8	0.098	4.2	10.70	0.098	4.6	4.4	AP-42
32	Alky Htr B15	18.0	18.0	11.8	0.098	5.1	10.61	0.098	4.6	4.8	AP-42
34	Alky Htr H1	18.8	18.8	16.0	0.098	6.9	13.28	0.098	5.7	6.3	AP-42
11	#1 HDS Heater	24.0	24.0	19.4	0.098	8.3	14.48	0.098	6.2	7.3	AP-42
12	LEF Heater	24.0	24.0	19.6	0.098	8.4	17.07	0.098	7.3	7.9	AP-42
	Total - heaters & boilers	1492.4	1904.2	1032.6		661.1	950.3		512.4	586.8	

Sinclair Tulsa Refinery

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emission estimate
		MM Btu/hr	MM Btu/hr	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
1	Boiler 1 (east)	233.0	233.0	136.1	0.297	177.3	124.2	0.297	161.8	169.6	average of 11/10/03 and 12/15/03 tests
	Boiler 2 (east)	233.0	233.0	136.1	0.290	172.8	124.2	0.290	157.7	165.3	average of 11/10/03 and 12/15/03 tests
2	Boiler 3 (west) fuel gas	233.0	233.0	94.2	0.199	82.0	73.5	0.199	64.0	73.0	average of 11/10/03 and 12/15/03 tests
	Boiler 3 (west) fuel oil			41.9	0.313	57.5	50.7	0.313	69.6	63.6	AP-42
	Boiler 4 (west) fuel gas	233.0	233.0	94.2	0.289	119.1	73.5	0.289	93.0	106.1	average of 11/10/03 and 12/15/03 tests
	Boiler 4 (west) fuel oil			41.9	0.313	57.5	50.7	0.313	69.6	63.6	AP-42
6	Crude Unit Atm. Heater	200.0	200.0	179.7	0.089	70.4	163.8	0.089	64.2	67.3	average of 11/12/03 and 12/17/03 tests
	Crude Unit Vacuum Heater	90.0	90.0	88.5	0.135	52.1	80.7	0.135	47.5	49.8	average of 11/12/03 and 12/17/03 tests
7	HTU North - Reactor Charge Heater	55.0	55.0	66.6	0.113	33.0	62.2	0.113	30.8	31.9	average of 11/11/03 and 12/16/03 tests

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emission estimate
		MM Btu/hr	MM Btu/hr	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
8	HTU South - Stripper Reboiler	120.0	120.0	64.9	0.135	38.4	60.6	0.135	35.8	37.1	average of 11/11/03 and 12/16/03 tests
	HTU South - Fractionator Reboiler	65.0	65.0	39.3	0.113	19.4	36.7	0.113	18.2	18.8	average of 11/11/03 and 12/16/03 tests
9	FCCU Charge Heater	150.0	150.0	50.0	0.189	41.3	56.1	0.189	46.4	43.9	11/12/03 test
13	CRU Stabilizer Reboiler	85.0	85.0	36.9	0.117	18.9	31.0	0.117	15.9	17.4	average of 11/11/03 and 12/16/03 tests
14	CRU Charge Heater	120.0	120.0	47.2	0.077	15.9	39.7	0.077	13.4	14.7	average of 11/11/03 and 12/16/03 tests
	CRU Intermediate #1	101.0	101.0	88.2	0.110	42.6	74.2	0.110	35.8	39.2	average of 11/11/03 and 12/16/03 tests
	CRU Intermediate #2	25.0	25.0	32.8	0.133	19.1	27.6	0.133	16.0	17.5	average of 11/11/03 and 12/16/03 tests
19	Isom Charge	65.0	65.0	11.5	0.098	4.9	10.3	0.098	4.4	4.7	AP-42, utilization rates from 2000 & 2001
	Total - heaters & boilers	2008.0	2008.0	1249.9		1022.4	1139.8		944.4	983.4	

Sinclair Casper Refinery

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emission estimate
		MM Btu/hr	MM Btu/hr	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
2	# 5 Boiler (fuel gas)	53.6	53.6	9.1	0.139	5.5	14.30	0.169	10.56	8.0	10/4/04 and 10/7/05 tests
	#5 Boiler (fuel oil)			12.0	0.367	19.2	8.22	0.367	13.20	16.2	AP-42
4	# 7 Boiler	59.0	59.0	29.7	0.138	18.0	27.71	0.138	16.77	17.4	Average of 10/3/03 and 9/27/02 tests
9	B-1 # 4 Crude Heater (fuel gas)	62.5	62.5	27.1	0.412	48.9	25.12	0.209	23.05	36.0	10/2/03 and 10/5/04 tests
	B-1 # 4 Crude Heater (fuel oil)			5.4	0.412	9.7	10.03	0.600	26.35	18.0	10/2/03 test and AP-42
11	# 5 Crude Heater (fuel gas)	54.2	54.2	27.1	0.339	40.3	29.70	0.227	29.48	34.9	9/30/03 test, AP-42
	# 5 Crude Heater (fuel oil)			5.36	0.339	7.96	0.00	0.227	0.00	4.0	9/30/03 test, AP-42
15	B-20-2 Reformer # 2 Heater	53.5	53.5	18.1	0.176	13.9	17.53	0.176	13.48	13.7	Average of 10/1/03 tests

pt #	COMBUSTION UNIT NAME	Allowable Heat Input Capacity	Maximum Physical Heat Input Capacity	2004 Utilization Rate	NOx Baseline Emissions Factor	2004 NOx Baseline Emissions Rate	2005 Utilization Rate	NOx Baseline Emissions Factor	2005 NOx Baseline Emissions Rate	2004 - 2005 average NOx emissions	Type of data used to derive emission estimate
		MM Btu/hr	MM Btu/hr	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	MM Btu/hr (HHV)	lb NOx / MM Btu (HHV)	TPY	TPY	
20	F-202 Feed Heater (FCC)	45.8	45.8	25.3	0.200	22.2	20.13	0.200	17.64	19.9	Permit 30-151-1
18	B-201 CHD Heater	17.4	17.4	18.5	0.098	7.9	19.29	0.098	8.28	8.1	AP-42
	Total - heaters & boilers	346.0	346.0	177.6		193.6	172.0		158.8	176.2	

Appendix C: Heater and Boiler NOx Control Plan

REFINERY	pt #	COMBUSTION UNIT NAME	Type of Qualifying Control / Allowable NOx Emission Rate	Installation of Qualifying Control or Shutdown Date	Allowable Heat Release - After Control	Baseline Emissions	Emissions after control	Emissions Controlled	Cumulative NOx Controlled
					MM Btu/hr (HHV)	TPY	TPY	TPY	TPY
Tulsa	2	Boiler 3 (west) fuel oil	eliminate fuel oil	DOL	0.0	63.6	0.0	63.6	63.6
Tulsa	2	Boiler 4 (west) fuel oil	eliminate fuel oil	DOL	0.0	63.6	0.0	63.6	127.2
Tulsa	8	HTU South - Stripper Reboiler	remove from service	2006	0.0	37.1	0.0	37.1	164.3
Tulsa	8	HTU South - Fractionator Reboiler	remove from service	2006	0.0	18.8	0.0	18.8	183.1
Tulsa	19	Isom Charge	remove from service	2002	0.0	4.7	0.0	4.7	187.8
Sinclair	33	Alky Htr B16	remove from service	2006	0.0	18.7	0.0	18.7	206.4
Sinclair	13	1 Ref Htr	0.040 lb/MM Btu (HHV)	2004	44.6	12.0	7.8	4.1	210.6
Sinclair	14	2 Ref Htr	0.040 lb/MM Btu (HHV)	2004	74.8	16.7	13.1	3.6	214.2
Sinclair	15	3 Ref Htr	0.040 lb/MM Btu (HHV)	2004	22.4	4.6	3.9	0.7	214.9
Sinclair	16	Stabilizer Reboiler	0.040 lb/MM Btu (HHV)	2004	11.1	2.4	1.9	0.5	215.4

REFINERY	pt #	COMBUSTION UNIT NAME	Type of Qualifying Control / Allowable NOx Emission Rate	Installation of Qualifying Control or Shutdown Date	Allowable Heat Release - After Control	Baseline Emissions	Emissions after control	Emissions Controlled	Cumulative NOx Controlled
					MM Btu/hr (HHV)	TPY	TPY	TPY	TPY
Tulsa	13	CRU Stabilizer Reboiler	0.040 lb/MM Btu (HHV)	2007	85.0	17.4	14.9	2.5	217.9
Sinclair	20	583 Vacuum Htr	remove from service	2008	0.0	25.4	0.0	25.4	243.3
Sinclair	18	Crude Htr 1	remove from service	2006	0.0	44.5	0.0	44.5	287.9
Sinclair	19	Crude Htr 2	remove from service	2006	0.0	52.2	0.0	52.2	340.1
Casper	11	# 5 Crude Heater (fuel gas)	remove from service	2008	0.0	34.9	0.0	34.9	375.0
Casper	11	# 5 Crude Heater (fuel oil)	eliminate fuel oil	DOL	0.0	4.0	0.0	4.0	379.0
Tulsa	1	Boiler 1 (east)	0.040 lb/MM Btu (HHV)	2009	233.0	169.6	40.8	128.7	507.7
Tulsa	1	Boiler 2 (east)	0.040 lb/MM Btu (HHV)	2008	233.0	165.3	40.8	124.4	632.1
Tulsa	2	Boiler 4 (west) fuel gas	0.040 lb/MM Btu (HHV)	2008	233.0	106.1	40.8	65.2	697.4
Tulsa	2	Boiler 3 (west) fuel gas	0.040 lb/MM Btu (HHV)	2008	233.0	73.0	40.8	32.2	729.6

REFINERY	pt #	COMBUSTION UNIT NAME	Type of Qualifying Control / Allowable NOx Emission Rate	Installation of Qualifying Control or Shutdown Date	Allowable Heat Release - After Control	Baseline Emissions	Emissions after control	Emissions Controlled	Cumulative NOx Controlled
					MM Btu/hr (HHV)	TPY	TPY	TPY	TPY
Sinclair	1	FCC Heater B2	remove from service	DOL	0.0	24.3	0.0	24.3	753.9
Casper	20	F-202 Feed Heater (FCC)	0.040 lb/MM Btu (HHV)	2008	45.8	19.9	8.0	11.9	765.8
Casper	18	B-201 CHD Heater	0.040 lb/MM Btu (HHV)	2006	17.4	8.1	2.7	5.4	771.2
Sinclair	10	Naphtha Split Htr	0.040 lb/MM Btu (HHV)	2007	34.5	16.4	5.3	11.1	782.3
Sinclair	26	#2 HDS Heater	0.040 lb/MM Btu (HHV)	2007	28	10.0	4.3	5.7	788.0
Sinclair	27	#3 HDS Heater	0.040 lb/MM Btu (HHV)	2006	18	4.4	2.8	1.6	789.7
Sinclair	32	Alky Htr B15	remove from service	2008	0.0	4.8	0.0	4.8	794.5
Sinclair	34	Alky Htr H1	remove from service	2008	0.0	6.3	0.0	6.3	800.8
Sinclair	11	#1 HDS Heater	0.040 lb/MM Btu (HHV)	2007	24	7.3	3.7	3.6	804.4

REFINERY	pt #	COMBUSTION UNIT NAME	Type of Qualifying Control / Allowable NOx Emission Rate	Installation of Qualifying Control or Shutdown Date	Allowable Heat Release - After Control	Baseline Emissions	Emissions after control	Emissions Controlled	Cumulative NOx Controlled
					MM Btu/hr (HHV)	TPY	TPY	TPY	TPY
Sinclair	12	LEF Heater	0.040 lb/MM Btu (HHV)	2007	24	7.9	3.7	4.2	808.6
Sinclair	42	# 5 Low P Boiler	remove from service	DOL	0.0	7.8	0.0	7.8	816.4
Sinclair	42	# 6 Low P Boiler	remove from service	DOL	0.0	7.8	0.0	7.8	824.2
Sinclair	42	# 7 Low P Boiler	remove from service	DOL	0.0	7.8	0.0	7.8	832.1
Sinclair	35	#10 High P Boiler	0.040 lb/MM Btu (HHV)	2008	150	59.2	26.3	32.9	865.0

Appendix D: List of Fuel Gas Combustion Devices with Delayed NSPS Subpart J Applicability

Tulsa Refinery	Crude Unit Atm. Heater	Shut down by December 31, 2010
Tulsa Refinery	Crude Unit Vacuum Heater	Shut down by December 31, 2010

Note: The Sinclair Tulsa Refinery shall not be limited in its use of credits from the shut-down of the Fuel Gas Combustion Devices identified in this Appendix D for NSR netting purposes.

Appendix E: Predictive Emissions Monitoring Systems for Heaters and Boilers with Capacities Between 150 and 100 mmBTU/hr

A Predictive Emissions Monitoring Systems ("PEMS") is a mathematical model that predicts the gas concentration of NO, in the stack based on a set of operating data. Consistent with the CEMS data frequency requirements of 40 C.F.R. Part 60, the PEMS shall calculate a pound per million BTU value at least once every 15 minutes, and all of the data produced in a calendar hour shall be averaged to produce a calendar hourly average value in pounds per million BTU.

The types of information needed for a PEMS are described below. The list of instruments and data sources shown below represent an ideal case. However at a minimum, each PEMS shall include continuous monitoring for at least items 3-5 below. COPC will identify and use existing instruments and refinery data sources to provide sufficient data for the development and implementation of the PEMS.

Instrumentation:

1. Absolute Humidity reading (one instrument per refinery, if available)
2. Fuel Density, Composition and/or specific gravity - On line readings (it may be possible if the fuel gas does not vary widely, that a grab sample and analysis may be substituted)
3. Fuel flow rate
4. Firebox temperature
5. Percent excess oxygen
6. Airflow to the firebox (if known or possibly estimated)
7. Process variable data - steam flow rate, temperature and pressure – process stream flow rate, temperature & pressure, etc.

Computers & Software:

Relevant data will be collected and stored electronically, using computers and software. The hardware and software specifications will be specified in the source-specific PEMS.

Calibration and Setup:

1. Data will be collected for a period of 7 to 10 days of all the data that is to be used to construct the mathematical model. The data will be collected over an operating range that represents 80% to 100% of the normal operating range of the heater/boiler;

2. A "Validation" analysis shall be conducted to make sure the system is collecting data properly:

3. Stack Testing to develop the actual emissions data for comparison to the collected parameter data; and

4. Development of the mathematical models and installation of the model into the computer.

The elements of a monitoring protocol for a PEMS will include:

1. Applicability
    a. Identify source name, location, and emission unit number(s);
    b. Provide expected dates of monitor compliance demonstration testing,
2. Source Description
    a. Provide a simplified block flow diagram with parameter monitoring points and emission sampling points identified (e.g., sampling ports in the stack);
    b. Provide a discussion of process or equipment operations that are known to significantly affect emissions or monitoring procedures (e.g., batch operations, plant schedules, product changes).
3. Control Equipment Description
    a. Provide a simplified block flow diagram with parameter monitoring points and emission sampling points identified (e.g., sampling ports in the stack);
    b. List monitored operating parameters and normal operating ranges;
    c. Provide a discussion of operating procedures that are known to significantly affect emissions (e.g., catalytic bed replacement schedules).
4. Monitoring System Design
    a. Install, calibrate, operate, and maintain a continuous PEMS;
    b. Provide a general description of the software and hardware components of the PEMS, including manufacturer, type of computer, name(s) of software product(s), monitoring technique (e.g., method of emission correlation). Manufacturer literature and other similar information shall also be submitted, as appropriate;

c. List all elements used in the PEMS to be measured (e.g., pollutant(s), other exhaust constituents) such as 02 for correction purposes, process parameters), and/or emission control device parameters));
d. List all measurement or sampling locations (e.g., vent or stack location, process parameter measurement location, fuel sampling location, work stations);
e. Provide a simplified block flow diagram of the monitoring system overlaying process or control device diagram (could be included in Source Description and Control Equipment Description);
f. Provide a description of sensors and analytical devices (e.g., thermocouple for temperature, pressure diaphragm for flow rate);
g. Provide a description of the data acquisition and handling system operation including sample calculations (e.g., parameters to be recorded, frequency of measurement, data averaging time, reporting units, recording process);
h. Provide checklists, data sheets, and report format as necessary for compliance determination (e.g., forms for record keeping).

5. Support Testing and Data for Protocol Design
    a. Provide a description of field and/or laboratory testing conducted in developing the correlation (e.g., measurement interference check, parameter/emission correlation test plan, instrument range calibrations);
    b. Provide graphs showing the correlation, and supporting data (e.g., correlation test results, predicted versus measured plots, sensitivity plots, computer modeling development data).
6. Initial Verification Test Procedures
    a. Perform an initial relative accuracy test (RA test) to verify the performance of the PEMS for the equipment's operating range. The PEMS must meet the relative accuracy requirement of the applicable Performance Specification in 40 C.F.R. Part 60, Appendix B. The test shall utilize the test methods of 40 C.F.R. Part 60, Appendix A;
    b. Identify the most significant independently modifiable parameter affecting the emissions: Within the limits of safe unit operation, and typical of the anticipated range of operation, test the selected parameter for three RA test data sets at the low range, three at the normal operating range and three at the high operating range of

that parameter, for a total of nine RA test data sets. Each RA test data set should be between 21 and 60 minutes in duration;

c. Maintain a log or sampling report for each required stack test listing the emission rate;
d. Demonstrate the ability of the PEMS to detect excessive sensor failure modes that would adversely affect PEMS emission determination. These failure modes include gross sensor failure or sensor drift;
e. Demonstrate the ability to detect sensor failures that would cause the PEMS emissions determination to drift significantly from the original PEMS value;
f. The PEMS may use calculated sensor values based upon the mathematical relationships established with the other sensors used in the PEMS. Establish and demonstrate the number and combination of calculated sensor values which would cause PEMS emission determination to drift significantly from the original PEMS value.

7. Quality Assurance Plan
    a. Provide a list of the input parameters to the PEMS (e.g., transducers, sensors, gas chromatograph, periodic laboratory analysis), and a description of the sensor validation procedure (e.g., manual or automatic check);
    b. Provide a description of routine control checks to be performed during operating periods (e.g., preventive maintenance schedule, daily manual or automatic sensor drift determinations, periodic instrument calibrations);
    c. Provide minimum data availability requirements and procedures for supplying missing data (including specifications for equipment outages for QA/QC checks);
    d. List corrective action triggers (e.g., response tune deterioration limit on pressure sensor, use of statistical process control (SPC) determinations of problems, sensor validation alarms);
    e. List trouble-shooting procedures and potential corrective actions;
    f. Provide an inventory of replacement and repair supplies for the sensors;
    g. Specify, for each input parameter to the PEMS, the drift criteria for excessive error (e.g., the drift limit of each input sensor that would cause the PEMS to exceed relative accuracy requirements);
    h. Conduct a quarterly electronic data accuracy assessment tests of the PEMS;

i. Conduct semiannual RA tests of the PEMS. Annual RA tests may be conducted if the most recent RA test result is less than or equal to 7.5%. Identify the most significant independently modifiable parameter affecting the emissions. Within the limits of safe unit operation and typical of the anticipated range of operation, test the selected parameter for three RA test data pairs at the low range, three at the normal operating range, and three at the high operating range of that parameter for a total of nine RA test data sets. Each RA test data set should be between 21 and 60 minutes in duration.

8. PEMS Tuning
    a. Perform tuning of the PEMS provided that the fundamental mathematical relationships in the PEMS model are not changed.
    b. Perform tuning of the PEMS in case of sensor recalibration or sensor replacement provided that the fundamental mathematical relationships in the PEMS model are not changed.