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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

UNITED STATES OF AMERICA,)
) Plaintiff,
) and
STATE OF NEW JERSEY) Co-Plaintiff,
) v.
HESS CORPORATION) Defendant.

CIVIL ACTION NO.
CONSENT DECREE

CS 218

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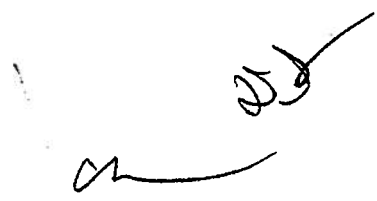
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WHEREAS, Plaintiff, the United States of America ("Plaintiff" or "the United States"), by the authority of the Attorney General of the United States and through its undersigned counsel, acting at the request and on behalf of the United States Environmental Protection Agency ("EPA") and Co-Plaintiff the State of New Jersey ("New Jersey") by the authority of the Attorney General of New Jersey at the request of and on behalf of the New Jersey Department of Environmental Protection ("NJDEP"), have simultaneously filed a Complaint and lodged this Consent Decree against Defendant Hess Corporation ("Hess"), for alleged environmental violations at the Hess Refinery in Port Reading, New Jersey ("Refinery");

WHEREAS, the United States alleges that Hess 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 Regulations"); incorporated by reference into the applicable state implementation plan for attainment pollutants, and EPA approved state rules adopted as required by 40 C.F.R. Part 51, Subpart I ("SIP"); 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. Part 51, Subpart I, in particular § 51.165(a) and (b) and at 40 C.F.R. Part 51, Appendix S, and at 40 C.F.R. § 52.24 ("PSD/NSR Regulations"), and the portions of the SIP for nonattainment pollutants, for heaters and boilers and fluid catalytic cracking unit catalyst regenerators for NO_x, SO₂, CO and PM.

2) New Source Performance Standards ("NSPS") found at 40 C.F.R. Part 60, Subparts A and J, promulgated pursuant to 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

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D. J. [Signature]

unit catalyst regenerators;

3) Leak Detection and Repair ("LDAR") requirements promulgated pursuant to Sections 111 and 112 of the Act, 42 U.S.C. §§ 7411 and 7412 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 related New Jersey rules, N.J.A.C. 7:27-16.1 et seq.; and

4) National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Benzene Waste Operations promulgated pursuant to Section 112(e) of the Act, 42 U.S.C. § 7412(e) and found at 40 C.F.R. Part 61, Subpart FF ("Benzene Waste NESHAP Regulations").

WHEREAS, the United States also specifically alleges that, upon information and belief, Hess has been and/or continues to be in violation of the SIP and other state and local rules, regulations and permits adopted or issued by New Jersey to the extent that such plans, rules, regulations, and permits implement, adopt or incorporate the above-described federal requirements;

WHEREAS, New Jersey has sought to join this matter alleging violations of its applicable SIP provisions and/or other state and local rules, regulations, including various regulations adopted by NJDEP at N.J.A.C. 7:27-1 et seq., pursuant to the New Jersey Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq. ("New Jersey Air Act"), and permits incorporating and implementing the foregoing federal requirements;

WHEREAS, the Refinery consists of a fluidized catalytic cracking complex with a high energy Wet Gas Scrubber ("WGS") but no crude oil distillation or FCCU pretreatment units;

WHEREAS, Hess denies that it has violated and/or continues to violate the foregoing statutory and regulatory requirements, SIP provisions and other New Jersey regulations and permits 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 as alleged in the Complaint;

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

WHEREAS, Hess consents to the simultaneous filing of the Complaint and lodging of this Consent Decree, despite its denial of the allegations in the Complaint to accomplish its objective of cooperatively reconciling the goals of the United States, New Jersey and Hess under the Clean Air Act, and the corollary New Jersey statutes, and therefore agrees to undertake the installation of air pollution control equipment and enhancements to its air pollution management practices to reduce air emissions by participating in the Global Settlement Strategy;

WHEREAS, by entering into this Consent Decree, Hess is committed to proactively resolving environmental concerns relating to the Refinery's operations;

WHEREAS, the Parties anticipate that the affirmative relief identified in Part V of this Consent Decree has reduced and will further reduce annual emissions of nitrogen oxides from the Refinery by approximately 181 tons per year.

WHEREAS, with respect to the provisions of Section V.J ("Control of Acid Gas Flaring Incidents"), 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 Background 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

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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 Paragraph 10(y) 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) or NSPS Subpart J 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, the Refinery has acknowledged that, for future permitting, it will use the same definition of the FCCU as an emissions unit as defined in Paragraph 10(p);

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

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

WHEREAS, by signing this Consent Decree, Hess has waived the right of service of process, and the United States and New Jersey agree that Hess need not answer the Complaint;

WHEREAS, notwithstanding the foregoing reservations, the Parties agree that: (a) settlement of the matters set forth in the Complaint 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

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resolving this matter;

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that the Consent Decree has been negotiated at arms length and in good faith and that this 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 XV ("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 this 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 and 1355. 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. The United States' complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against Hess under the Clean Air Act. Authority 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.

2. Venue is proper in the District of New Jersey 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). Hess consents to the personal jurisdiction of this Court, waives any objections to venue in this District, and does not object to New Jersey's participation in this action.

3. Notice of the commencement of this action has been given to New Jersey 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 this Consent Decree shall apply to the Refinery, and shall be binding upon the United States, New Jersey, Hess, and their agents, successors, and assigns. It shall not apply to any other source or business owned or operated by Hess.

5. Hess agrees not to contest the validity of this Consent Decree in any subsequent proceeding to implement or enforce its terms. Hess further agrees that, in any action to enforce this Consent Decree, it shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

6. Effective from the Date of Entry until termination pursuant to Part XVII, Hess agrees that the Refinery is covered by this Consent Decree. Effective from the Date of Lodging, Hess shall give written notice of this Consent Decree to any successors in interest to the Refinery prior to the transfer of ownership or operation of any portion of the Refinery and shall provide a copy of the Consent Decree to any successor in interest. Hess shall notify the United States and New Jersey, in accordance with the notice provisions set forth in Paragraph 183 (Notice), of any successor in interest at least thirty (30) Days prior to any such transfer.

7. Hess shall 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 the Refinery upon the execution by the transferee of a modification to this Consent Decree, which makes the terms and conditions of this Consent Decree applicable to the transferee. In the event of such transfer, Hess shall notify the United States and New Jersey in accordance with the notice provisions in Paragraph 183. By no earlier than thirty (30) Days after such notice, Hess may file a motion to modify the Consent Decree with the Court to make the terms and conditions of the

Consent Decree applicable to the transferee. The United States or New Jersey may oppose the motion and the Court may find that the transferee does not have the financial and technical ability to assume the obligations and liabilities under this Consent Decree. If the Court approves the modification, Hess shall be released from the obligations and liabilities of this Consent Decree on the date the Court approves the modification.

8. Except as provided in Paragraph 7, Hess shall be solely responsible for ensuring that performance of the work contemplated under this Consent Decree is undertaken in accordance with the deadlines and requirements contained in this Consent Decree and any appendices hereto. Hess shall 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 this Consent Decree upon execution of any contract relating to such work. Copies of the relevant portions of the Consent Decree do not need to be supplied to firms who are retained solely to supply materials or equipment to satisfy the requirements of this Consent Decree.

III. OBJECTIVES

9. It is the purpose of the Parties to this Consent Decree to further the objectives of the Clean Air Act, the New Jersey Air Act and the regulations promulgated thereunder.

IV. DEFINITIONS

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

- a) "365-day rolling average" shall mean the average daily emission rate during the

preceding 365 days that the emitting unit operated. For purposes of clarity and as an example, for the first 365-day rolling average, the first day used in the 365-day rolling average is the first day on which the emission limit is effective, and the first complete 365-day average compliance period is 365 days later (e.g., for a limit effective on January 1, the first day in the period is January 1 and the first complete 365-day period is December 31). Days on which the emitting unit does not operate are not included in the averages, and in order to obtain a full 365-day average, the additional operating days are appended until a full 365-day average is obtained.

b) "7-day rolling average" shall mean the average daily emission rate during the preceding 7 days that the emitting unit operated. For purposes of clarity and as an example, for the first 7-day rolling average, the first day used in the 7-day rolling average is the first day on which the emission limit is effective, and the first complete 7-day average compliance period is 7 days later (e.g., for a limit effective on January 1, the first day in the period is January 1 and the first complete 7-day period is January 7). Days on which the emitting unit does not operate, or is in startup, shutdown or malfunction for the entire operating day, are not included in the averages, and in order to obtain a 7-day average, the additional operating days are appended until a 7-day average is obtained.

c) "Acid Gas" or "AG" shall mean any gas that contains hydrogen sulfide and is generated at the Refinery by the regeneration of an amine absorber solution but does not include Tail Gas.

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

e) "Acid Gas Flaring Device" or "AG Flaring Device" shall mean any device 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 Device currently in service is identified as the Refinery Flare (the "Flare" or "Unit 9" as identified in the Refinery's Title V Permit). To the extent that, during the duration of the Consent Decree, the Refinery utilizes AG Flaring Devices other than Unit 9 for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree.

f) "Acid Gas Flaring Incident" or "AG Flaring Incident" shall mean an incident that results in the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas in the Acid Gas Flaring Device 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 twenty-four (24) hour periods are measured from the initial commencement of flaring within the AG Flaring Incident.

g) "Calendar Quarter" shall mean a three month period ending on March 31st, June 30th, September 30th, or December 31st.

h) "CEMS" shall mean continuous emissions monitoring system.

i) "Consent Decree" or "Decree" shall mean this Consent Decree, including any and all appendices attached to this Consent Decree.

j) "CO" shall mean carbon monoxide.

k) "Combustion Units" shall mean the heaters, boilers, and other fuel gas

combustion devices. This does not include space heaters and the buildings' heating systems.

l) "Date of Entry" shall mean the date on which this Consent Decree is approved or signed by a United States District Court Judge for the District of New Jersey.

m) "Date of Lodging" shall mean the date this Consent Decree is lodged with the United States District Court for the District of New Jersey.

n) "Day" or "Days" shall mean a calendar day or days unless expressly stated to be a Working Day or Working Days. In computing any period of time under this Consent Decree (except for the calculation of rolling averages), where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next Working Day.

o) "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

p) "FCCU" shall include the riser, reactor, regenerator, air blower, spent catalyst stripper, catalyst recovery equipment, regenerator equipment for controlling air pollutant emissions, flue gas cooler, and the fractionator, its overhead condenser and associated wet gas compressor.

q) "Flaring Device" shall mean an Acid Gas Flaring Device and/or a Hydrocarbon Flaring Device.

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

s) "Hess" shall mean Hess Corporation and its respective successors and assigns.

t) "Hydrocarbon Flaring" or "HC Flaring" shall mean the combustion of refinery-generated hydrocarbon containing gases, except for Acid Gas and/or Sour Water Stripper Gas, in

a Hydrocarbon Flaring Device.

u) "Hydrocarbon Flaring Device" or "HC Flaring Device" shall mean a flare device, used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas. The HC Flaring Device currently in service at the Refinery is known as the Refinery Flare or Unit 9. To the extent that, during the duration of the Consent Decree, the Refinery utilizes HC Flaring Devices other than Unit 9 for the purpose of combusting any excess refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas, those HC Flaring Devices shall be covered under this Consent Decree.

v) "Hydrocarbon Flaring Incident" or "HC Flaring Incident" shall mean an incident that results in continuous or intermittent Hydrocarbon Flaring, except for Acid Gas or Sour Water Stripper Gas, at a Hydrocarbon Flaring Device that results in the emission of sulfur dioxide equal to, or greater than five hundred (500) pounds in a 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 HC Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of flaring within the HC Flaring Incident.

w) "LoTOx System" shall mean a NO_x control technology that includes a quench system, sufficient residence time, ozone injection ports, ozone generators, and oxygen supply, that uses the ozone to oxidize NO_x which is then removed in a wet gas scrubber.

x) "Low NO_x Combustion Promoter" shall mean a non-platinum based combustion catalyst added to the FCCU that minimizes NO_x emissions while maintaining its effectiveness as

a combustion promoter.

y) "Malfunction" shall mean, as specified in 40 C.F.R. § 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."

z) "Natural Gas Curtailment" shall mean a restriction imposed by a public utility limiting the Refinery's ability to obtain or use natural gas.

aa) "New Jersey" shall mean the State of New Jersey.

bb) "NJDEP" shall mean the New Jersey Department of Environmental Protection and any successor departments or agencies of New Jersey.

cc) "NO_x" shall mean nitrogen oxides.

dd) "Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral.

ee) "Part" shall mean a portion of this Consent Decree identified by a Roman numeral.

ff) "Parties" shall mean the United States, the State of New Jersey, and Hess.

gg) "PM" shall mean particulate matter as measured by 40 C.F.R. Part 60, Appendix A, Method 5B or 5F.

hh) "Port Reading Refinery" or "Refinery" shall mean the refinery owned and operated by Hess in Port Reading, New Jersey as shown on the plot plan attached as Appendix A.

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

jj) "Section" shall mean a portion of this Consent Decree identified by a capital

letter.

kk) "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 NO_x with ammonia to nitrogen and water.

ll) "Shutdown" as specified in 40 C.F.R. § 60.2 shall mean the cessation of operation of equipment or an affected facility for any purpose.

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

nn) "SO₂" shall mean sulfur dioxide.

oo) "Startup" as specified in 40 C.F.R. § 60.2 shall mean the setting in operation of equipment or an affected facility for any purpose.

pp) "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.

qq) "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, hot standby of the FCCU, or to maintain regenerator heat balance in the FCCU.

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

ss) "Wet Gas Scrubbing Plus" or "WGS+" shall mean a process that reduces NO_x through a two stage process of oxidation followed by absorption. The WGS+ process reduces NO_x in the FCCU flue gas through a process that oxidizes the NO to NO₂ and then employs

partial absorption of the NO₂ with an oxidant. The process is integrated into the WGS vessel downstream of the WGS's venturis. WGS+ includes two options in accordance with Appendix B: 1) Option A in which the existing WGS drum is outfitted with new internals and, 2) Option B in which the existing WGS drum height is increased to accommodate a second level of grid for additional absorption (in addition to the changes described in Option A).

V. AFFIRMATIVE RELIEF

A. Control of NO_x Emissions from the FCCU.

Summary: Hess shall implement a program as set forth herein with a goal to reduce NO_x emissions from the FCCU. Hess shall incorporate lower NO_x emission limits into permit applications and will demonstrate future compliance with the lower emission limits through the use of CEMS.

11. NO_x Emission Control for the FCCU.

The Refinery shall utilize one of the NO_x emissions control options at the FCCU to establish final NO_x emissions limits.

a) By no later than May 31, 2015, the Refinery shall utilize one of the NO_x emissions control options set forth in subparagraphs 11(a)(i) – (iv) below, and comply with the applicable NO_x emissions limits.

- i) SCR, LoTOx or WGS+ Option B. If the Refinery selects one of these options, it shall comply with final NO_x emissions limits for emissions from the FCCU of 40 ppmvd NO_x at 0% O₂ on a 7-day rolling average basis and 20 ppmvd NO_x at 0% O₂ on a 365-day rolling average basis;
- ii) WGS+ Option A. If the Refinery selects this option, it shall comply with

final NOx emissions limits established during a Demonstration Period pursuant to Appendix C that shall be no greater than 50 ppmvd NOx at 0% O₂ on a 24-hour rolling average basis and 30 ppmvd NOx at 0% O₂ on a 365-day rolling average basis, but no lower than 40 ppmvd NOx at 0% O₂ on a 7-day rolling average basis and 20 ppmvd NOx at 0% O₂ on a 365-day rolling average basis; or

- iii) A NOx Control Technology other than SCR, LoTOx, WGS + Option A, or WGS + Option B ("Alternate NOx Control Technology") that is designed to control emissions from the FCCU to 20 ppmvd NOx at 0% O₂ on a 365-day rolling average basis. The Refinery may use an Alternate NOx Control Technology only if the Refinery submits a detailed design to EPA and NJDEP by April 30, 2013 of an Alternate NOx Control Technology that has been designed to control NOx emissions from the FCCU to 20 ppmvd at 0% O₂ on a 365-day rolling average basis; in which case the Refinery shall comply with NOx emissions limits for the FCCU that are established by a Demonstration Period pursuant to Appendix C and that shall be no greater than 50 ppmvd NOx at 0% O₂ on a 24-hour rolling average basis and 30 ppmvd NOx at 0% O₂ on a 365-day rolling average basis but no lower than 40 ppmvd NOx at 0% O₂ on a 7-day rolling average basis and 20 ppmvd NOx at 0% O₂ on a 365-day rolling average basis.
- iv) Emission Limit Option. Hess at any time may notify the United States and New Jersey in writing in accordance with the notice provisions of

Paragraph 183 (Notice) that it will accept and agree to comply immediately with concentration based emissions limits of 40 ppmvd NOx at 0% O₂ on a 7-day rolling average basis and 20 ppmvd NOx at 0% O₂ on a 365-day rolling average basis. In such circumstances, Hess shall be absolved of any remaining obligations for the FCCU under Subparagraph 11(a)(i) – (iii).

12. Initial Interim NOx Limit. By the Date of Entry, the Refinery shall comply with a NOx emissions limit for emissions from the FCCU of 83.0 ppmvd NOx at 0% O₂ on a 7-day rolling average basis. The Refinery shall comply with the initial interim NOx limit until revised interim limits are established pursuant to Paragraph 13.

13. FCCU NOx Minimization Study and Revised Interim Limits.

13.A. Within 180 Days of Date of Entry, the Refinery shall perform an Oxygen (O₂) Optimization Study pursuant to this Paragraph, which shall be completed no later than twelve (12) months from the Date of Entry. The goal of the O₂ Optimization Study shall be to determine the minimum O₂ levels that the FCCU catalyst regenerator can be operated at, without negatively affecting FCCU conversion or processing rates, or risking regenerator stability. No later than sixty (60) Days after completing the Optimization Study, the Refinery shall report to EPA and NJDEP the results of the O₂ Optimization Study. The report shall include, at a minimum, the following information:

- a) Regenerator operating parameters including: cyclone temperatures, excess O₂, and inlet and outlet flowrates;
- b) Coke burn rate;
- c) FCCU feed rate;

- d) Total fresh catalyst addition rate;
- e) Rate of Low NO_x Combustion Promoter usage; and
- f) Hourly NO_x and O₂ concentrations.

As part of the report required by this Paragraph, the Refinery shall propose to EPA and NJDEP short and long term FCCU O₂ levels at which the Refinery will operate during a six (6) month Demonstration Period that will follow submittal of the report. The proposed FCCU O₂ levels may also give consideration to the unique operating constraints that may affect the ability of the FCCU to continuously operate at a given O₂ level.

13.B. No later than sixty (60) Days after completing the 6-month Demonstration Period, the Refinery shall report to EPA and NJDEP the results of the Demonstration Period. The report shall include at a minimum the same data as required under Paragraph 13.A. In this report, the Refinery shall propose a revised interim FCCU short term NO_x limit (in ppmvd on a 7-day rolling average basis at 0% O₂) and an interim long term NO_x limit (in ppmvd on a 365-day rolling average basis at 0% O₂) to EPA and NJDEP. These limits shall be established based on the results of the O₂ Optimization Study and Demonstration Period. The Refinery shall comply with the proposed NO_x limits upon submittal of the results of the study and the proposed NO_x limits.

14. If either compliance option in Subparagraph 11(a)(ii) or (iii) is selected by the Refinery, then, by no later than May 31, 2015, the Refinery shall commence and by no later than November 30, 2015, the Refinery shall complete a demonstration of WGS+ Option A or the Alternate NO_x Control Technology in order to establish Final FCCU NO_x Limits. During the Demonstration Period, the Refinery shall operate the FCCU, and the WGS+ Option A or Alternate NO_x Control Technology (as appropriate) in a manner that minimizes NO_x emissions

to the extent practicable and without interfering with conversion or processing rates.

15. Demonstration Report. The Refinery shall report the results of the Demonstration Period ("Demonstration Report") to EPA and NJDEP by sixty (60) Days after completion of the Demonstration Period. The Demonstration Report shall include, at a minimum, the NO_x and O₂ CEMS data recorded during the Demonstration Period and all process and control device data listed in Appendix C on a daily average basis for the Demonstration Period. The Refinery shall submit any additional, available data that EPA and NJDEP determine is needed to evaluate the demonstration.

16. Establishing Final FCCU NO_x Emissions Limits.

a) In the Demonstration Report, the Refinery shall propose a short term (i.e., 24-hour or 7-day rolling average) and a long term (365-day rolling average) concentration-based (ppmvd) NO_x emission limit corrected to 0% O₂. The Refinery shall comply with the emission limits it proposes for the FCCU beginning immediately upon submission of the Demonstration Report. The Refinery shall continue to comply with these limits unless and until the Refinery is required to comply with emissions limits established by EPA, after an opportunity for consultation with NJDEP, pursuant to Paragraph 16(b), below.

b) EPA, after an opportunity for consultation with NJDEP, will use the data collected about the FCCU during the Demonstration Period, as well as all other available and relevant information, to establish Final FCCU NO_x emissions limits. EPA will establish a short term (e.g., 24-hour or 7-day rolling average) and a 365-day rolling average concentration-based (ppmvd) NO_x emission limits corrected to 0% oxygen. EPA will determine the limits based on: (i) the level of performance during the baseline, Optimization and Demonstration periods; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information. EPA

will notify the Refinery of its determination of the concentration-based NOx emissions limit and averaging times. The Refinery shall immediately (or within ninety (90) Days, if EPA's limit is more stringent than the limit proposed by the Refinery) operate the FCCU so as to comply with the EPA-established emission limits. If Hess disputes the EPA-determined limits, Hess will invoke the dispute resolution provisions of this Consent Decree by no later than thirty (30) Days after EPA's determination of the limits. During the period of dispute resolution, Hess will continue to comply with the Hess proposed limits.

17. NOx emissions during periods of Startup, Shutdown, or Malfunction of the FCCU and Malfunction of the NOx control technology shall not be used in determining compliance with the short-term (i.e. 24-hour or 7-day) NOx emission limits established pursuant to Paragraphs 11-16, provided that during such periods the Refinery implements good air pollution control practices to minimize NOx emissions.

18. Demonstrating Compliance with FCCU NOx Emission Limits. Beginning no later than the Date of Entry, the Refinery shall use its existing NOx and O₂ CEMS to monitor performance of the FCCU and to report compliance with the terms and conditions of this Consent Decree. The CEMS will be used to demonstrate compliance with the NOx emission limits established pursuant to Paragraphs 11-16. The Refinery shall make CEMS data available to EPA and NJDEP upon demand as soon as practicable. The Refinery shall 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. Nothing in this Paragraph shall prevent the Refinery from using the existing CEMS provided it meets the

above requirements. Compliance with the applicable protocols of NJ Technical Manual 1005 to implement the requirements of this Paragraph shall meet the requirements of this Paragraph.

B. Control of SO₂ Emissions from the FCCU and the Sulfur Recovery Plant.

Summary: The Refinery shall limit SO₂ emissions from the FCCU and the Sulfur Recovery Plant, as required herein. The Refinery shall incorporate the SO₂ emission limits in Paragraph 19 into permit applications and will continue to demonstrate future compliance with the lower emission limits through the use of CEMS.

19. By no later than the Date of Entry, the Refinery shall comply with the SO₂ emissions limits from the FCCU and SRP of 25 ppmvd on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each at 0% O₂.

20. Demonstrating Compliance with FCCU and SRP SO₂ Emission Limits.

Beginning no later than the Date of Entry, Hess shall continue to use SO₂ (and O₂) CEMS to monitor the SO₂ emissions from the FCCU and SRP to the atmosphere and to report compliance with the terms and conditions of this Consent Decree. The CEMS will be used to demonstrate compliance with the respective SO₂ emission limits required in Paragraph 19. Hess shall make CEMS data available to EPA and NJDEP upon demand, as soon as practicable. SO₂ emissions during periods of Malfunction of the WGS shall not be used in determining compliance with the 7-day emission limit provided that during such periods the Refinery implements good air pollution control practices to minimize SO₂ emissions.

21. Hess shall install, certify, calibrate, maintain, and operate all CEMS required by this Section 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. Nothing in this Paragraph shall prevent the Refinery from using the existing CEMS provided it meets the above requirements. Compliance with the applicable protocols of NJ Technical Manual 1005 to implement the requirements of this Paragraph shall meet the requirements of this Paragraph.

C. Control of PM Emissions from the FCCU.

Summary: Hess shall control particulate matter ("PM") emissions from the FCCU by the operation of its existing WGS as required herein.

22. Final FCCU PM Emission Limit. By no later than Date of Entry, Hess shall limit PM emissions from the FCCU to the atmosphere to 0.5 pounds of PM per 1000 pounds of coke burned. Compliance with the Consent Decree will be based on the average of three (3) 1-hour stack tests.

23. To measure PM emissions from the FCCU, Hess shall follow the stack test protocol specified in NJAC 7:27B-1. Hess shall propose and submit the stack test protocol to NJDEP for approval, by no later than ninety (90) Days after Date of Entry. Hess shall conduct the first stack test by no later than 180 Days after Date of Entry and approval of the stack test protocol. Hess shall conduct annual stack tests at the FCCU. The annual stack test conducted for TSP pursuant to Hess's Title V permit shall satisfy the annual PM stack test required by this Paragraph.

24. PM emissions during periods of Malfunction of the FCCU's Wet Gas Scrubber shall not be used in determining compliance with the emission limits of 0.5 pounds of PM per 1000 pounds of coke burned provided that during such periods the Refinery implements good air pollution control practices to minimize PM emissions.

25. Opacity Monitoring at FCCU. Hess shall comply with the Alternative Monitoring

Plan (AMP) approved by EPA on March 25, 2009, or a subsequent AMP that has been approved by EPA.

D. Control of CO Emissions From the FCCU.

Summary: Hess shall continue to operate the FCCU in a manner that minimizes CO emissions.

26. FCCU CO Emission Limit. By no later than the Date of Entry, Hess shall limit CO emissions from the FCCU to 300 ppmvd on a 1-hour block average basis corrected to 0% O₂.

27. At any time during the term of this Consent Decree, Hess may accept a CO emission limit of 100 ppmvd on a 365-day rolling average basis corrected to 0% O₂.

28. CO emissions during periods of Startup, Shutdown, or Malfunction shall not be used in determining compliance with the 1-hour 300 ppmvd emission limit, provided that during such periods Hess implements good air pollution control practices to minimize CO emissions.

29. Demonstrating Compliance with CO Emission Limit. By no later than the Date of Entry, Hess shall use a CO (and O₂) CEMS to monitor the performance of the FCCU and to report compliance with the terms and conditions of this Consent Decree. Hess shall make CEMS and process data available to EPA and NJDEP upon demand as soon as practicable. Hess shall 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. Nothing in this Paragraph shall prevent the Refinery from using the existing CEMS provided it meets the above requirements. Compliance with the applicable protocols of NJ Technical Manual 1005 to implement the requirements of this Paragraph shall meet the requirements of this Paragraph.

E. NSPS Subpart A and J Applicability to the FCCU Catalyst Regenerator.

30. The FCCU Catalyst Regenerator shall continue to be an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J, and therefore shall be subject to, and comply with, the requirements of 40 C.F.R. Part 60, Subparts A and J, for SO₂, PM (and opacity), and CO. With respect to continuous opacity monitoring, Hess shall comply with the Alternative Monitoring Plan (AMP) approved by EPA on March 25, 2009, or a subsequent AMP that has been approved by EPA.

a) If prior to the termination of this Consent Decree, the FCCU becomes subject to NSPS Subpart Ja for a particular pollutant due to a "modification" (as that term is defined in the final Subpart Ja rule), the modified affected facility shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for that regulated pollutant to which a standard applies as a result of the modification.

b) If prior to the termination of this Consent Decree, the FCCU becomes subject to NSPS Subpart Ja due to a "reconstruction" (as that term is defined in the final Subpart Ja rule), the reconstructed facility shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for all pollutants.

F. Control of NO_x Emissions from the Boilers.

Summary: There are two boilers with a heat input of greater than 40 mmBTU/hr in service at the Refinery (Boilers 3 & 4) that share a common stack. Hess shall implement a program to reduce NO_x emissions from Boilers 3 & 4 through the acceptance of permit emission limits on the units controlled to meet the requirements of Section V.F. Hess shall monitor compliance with the emission limits through the use of a CEMS.

31. By no later than eighteen (18) months from the Date of Entry, Hess shall accept

and comply with a NOx limit of 0.05 lb/mmBTU averaged for Boilers 3 & 4 on a 365-day rolling average basis.

32. Beginning no later than eighteen (18) months from the Date of Entry, Hess shall install, certify, calibrate, maintain, and operate a NOx CEMS on the common stack of Boilers 3 & 4 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. Compliance with the applicable protocols of NJ Technical Manual 1005 to implement the requirements of this Paragraph shall meet the requirements of this Paragraph. Hess will not be required to make modifications to the common stack in order to comply with the CEMS location requirements of Performance Specification 2 or other analogous New Jersey requirements. For the purposes of this Paragraph: a) installation of CEMs at a representative location including any necessary penetration of the stack for a CEMS probe; and b) ports and safe access for testing personnel as necessary for certification testing of the CEMS, shall not be considered modification to the stack.

G. Control of SO₂ Emissions from, and NSPS Applicability to, Heaters and Boilers.

Summary: Hess shall continue to limit SO₂ emissions from refinery heaters and boilers by restricting H₂S in refinery fuel gas and by agreeing not to burn Fuel Oil except as specifically permitted under the provisions set forth herein.

33. NSPS Applicability to Heaters and Boilers. Upon the Date of Entry, all heaters and boilers that are Combustion Units shall be affected facilities, as that term is used in 40 C.F.R. Part 60, Subparts A and J, and shall be subject to and comply with the applicable requirements of NSPS Subparts A and J for fuel gas combustion devices.

a) If prior to the termination of this Consent Decree, any heater or boiler becomes subject to NSPS Subpart Ja for a particular pollutant due to a "modification" (as that term is defined in the final Subpart Ja rule), the modified affected facility shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for that regulated pollutant to which a standard applies as a result of the modification.

b) If prior to the termination of this Consent Decree, any heater or boiler becomes subject to NSPS Subpart Ja due to a "reconstruction" (as that term is defined in the final Subpart Ja rule), the reconstructed facility shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for all pollutants as a result of the reconstruction.

34. For heaters and boilers that are affected facilities under NSPS Subpart J pursuant to this Section, 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).

35. Elimination/Reduction of Fuel Oil Burning. Effective on the Date of Entry, the Refinery shall not burn Fuel Oil in any Combustion Unit. Nothing in this prohibition limits Hess's ability to burn Torch Oil in an FCCU catalyst regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.

H. Sulfur Recovery Plants.

Summary: The Refinery shall comply with the requirements affecting the SRP as described in this Section. In the event that sulfur input at the SRP exceeds 20 long tons in any calendar day, it shall become an affected facility under NSPS Subpart J.

36. Description of Sulfur Recovery Plant.

The Sulfur Recovery Plant (SRP) is a Parson's design, 10.1 Long Ton per day unit. The

SRP is a 3-bed, straight-through Claus plant with a Main Reaction Furnace (MRF) and three direct-fired reheaters (auxiliary burners). The SRP processes Acid Gas and Sour Water Stripper Gas.

Sour Water Stripper Gas and Acid Gas and refinery fuel gas enter the MRF burner and produce the high temperature necessary to destroy ammonia in the gases. The gases from the MRF are cooled in the reaction cooler and first condenser. The sulfur produced is routed to the sulfur pit through a liquid seal. The cooled gases from the first condenser are reheated and routed through the first section of the converter bed. These gases are then cooled in the second condenser and the sulfur produced is routed to the sulfur pit. This continues for the second and third auxiliary burners/converter beds and associated condensers.

Cooled gases (tail gas) from the final condenser are routed to the thermal oxidizer ("Thermox Unit") where any remaining sulfur compounds are converted to sulfur dioxide before passing on to the WGS. There is no piping or duct work that would allow SRP tail gas to bypass the Thermox Unit and the WGS. Gases from the SRP cannot bypass the Thermox Unit and the WGS, and cannot be flared.

The FCCU/SRP/WGS Process Flow Diagram is provided in Appendix D.

37. Sulfur Pit Emissions. During operation of the SRP, Hess shall route all sulfur pit emissions to the Thermox Unit (which is monitored under Section V.B.), by no later than the first FCCU turnaround that occurs on or after the Date of Entry, unless the next FCCU turnaround is within eighteen (18) months of the Date of Entry, in which case the project will be performed during the subsequent FCCU turnaround but no later than May 31, 2015.

38. Compliance with Emissions Limits at the SRP.

a) Hess shall continue to route emissions from the SRP to the FCCU's WGS where

such emissions are treated and monitored under Section V.B.

b) At all times during operation of the Refinery, including periods of Startup, Shutdown and Malfunction, the Refinery shall, to the extent practicable, operate and maintain its SRP and any supplemental control devices through implementation of good air pollution control practices consistent with its PMO Plan, as defined below.

39. Good Operation and Maintenance.

a) By no later than 180 Days after Date of Entry, Hess shall submit to EPA and NJDEP a summary of the Refinery's plan for enhanced maintenance and operation of its SRP and any Upstream Process Units that has been or will be implemented. This plan shall be termed a Preventative Maintenance and Operation Plan ("PMO Plan"). The PMO Plan shall be a compilation of Hess's approaches for exercising good air pollution control practices and for minimizing SO₂ emissions. The PMO Plan will identify actions to promote the continuous operation of the SRP between scheduled maintenance turnarounds with minimization of emissions, including the continued use of supplemental control devices, if any. The PMO Plan shall include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures, hot standby procedures, emergency procedures and schedules to coordinate maintenance turnarounds of the SRP Claus trains and any supplemental control device, if any, to coincide with scheduled turnarounds of major Upstream Process Units. The PMO Plan shall have as a goal the elimination of Acid Gas Flaring. Hess shall comply with its PMO Plan at all times, including periods of Startup, Shutdown and Malfunction of its SRP. Hess's changes to a PMO Plan related to minimizing Acid Gas Flaring and/or SO₂ emissions shall be summarized and reported to EPA and NJDEP on an annual basis. This report may be included in the appropriate semi-annual report required under Paragraph 109. Continued routing of the SRP emissions to the FCCU's

WGS and compliance with the SO₂ emissions limit from the FCCU found in Section V.B. shall be considered good operation and maintenance under the PMO Plan.

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

I. Flaring Devices – NSPS Applicability.

Summary: There is one Flaring Device (Unit 9) at the Refinery. Unit 9 is an affected facility (as that term is used in 40 C.F.R. Part 60, Subpart J). The Flaring Device is subject to and required to comply with the fuel gas combustion device requirements of 40 C.F.R. Part 60, Subparts A and J; it may also be used as an emergency control device for the quick and safe combustion of gases generated as a result of Startup, Shutdown, and/or Malfunction.

40. Continuous or Intermittent, Routinely-Generated Refinery Fuel Gases. Hess shall identify all continuous or intermittent, routinely-generated refinery fuel gases that are combusted in Unit 9, and determine whether all such gases are monitored and comply with 40 C.F.R. § 60.104(a)(1). By no later than eighteen (18) months from Date of Entry, Hess shall comply with all applicable NSPS Subpart J requirements including the requirement to install an H₂S CEMS for Unit 9.

41. Compliance with Subparts A and J Standards. By no later than eighteen (18) months from the Date of Entry, Hess shall comply with the NSPS Subparts A and J requirements for the Flaring Device by using one or any combination of the following methods:

a) Operate and maintain a flare gas recovery system to prevent continuous or routine combustion in the Flaring Device;

b) Eliminate the routes of continuous or intermittent, routinely-generated refinery fuel gases to a Flaring Device and operate the Flaring Device such that it receives only process upset gases (as defined in 40 C.F.R. § 60.101(e)), fuel gas released as a result of relief valve leakage, or gases released due to other emergency malfunctions; and/or

c) Operate the Flaring Device as a fuel gas combustion device and comply with NSPS monitoring requirements by 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).

42. Compliance Certification for Flaring Devices. By the date indicated in Paragraph 41, Hess will submit to EPA and NJDEP a compliance certification for Unit 9 that certifies compliance with one or more of the compliance methods set forth in Paragraph 41, and identifies the compliance method(s) used.

43. Good Air Pollution Control Practices. On and after the Date of Entry, Hess shall at all times and to the extent practicable, including during periods of Startup, Shutdown, and/or Malfunction, implement good air pollution control practices for minimizing emissions consistent with 40 C.F.R. § 60.11(d).

44. Non-Routinely Generated Fuel Gases. The combustion of process upset gases, as defined in 40 C.F.R. § 60.101(e), or fuel gas that is released to the Flaring Device as a result of relief valve leakage or other emergency malfunctions, is exempt from the requirement to comply with 40 C.F.R. § 60.104(a)(1).

J. Control of Acid Gas Flaring Incidents.

Summary: Hess agrees to implement a program to investigate the cause of future Acid Gas Flaring Incidents, to take reasonable steps to correct the conditions that have caused or contributed to such Acid Gas Flaring Incidents, and to minimize the flaring of Acid Gas and Sour Water Stripper gases at the Refinery. Hess shall follow the procedures in this Section to evaluate whether future Acid Gas/Sour Water Stripper Gas Flaring Incidents occurring after the Date of Entry are due to Malfunctions or are subject to stipulated penalties. The procedures set forth in this Section require a Root Cause analysis and corrective action for Acid Gas/Sour Water Stripper Gas Flaring Incidents. The procedures require stipulated penalties for certain Acid Gas/Sour Water Stripper Gas Flaring Incidents if the Root Causes were not due to Malfunctions.

45. Flaring History. Hess has conducted a look-back analysis of Acid Gas Flaring Incidents that occurred from 2005 through 2009, and has submitted a report of any such incidents to EPA. By the Date of Entry, Hess shall submit a corrective action report identifying such interim and/or long-term corrective actions, and schedules for implementation, to minimize the likelihood of a recurrence of the Root Cause of a flaring event identified in the look-back analysis.

46. After Date of Entry, Hess shall investigate the cause of Acid Gas Flaring Incidents under Paragraph 47 and take corrective action as set forth in Paragraph 48. Hess shall continue to follow the investigative and corrective action procedure after termination of the Consent Decree or such other investigation and corrective action procedure that complies with 40 C.F.R. § 60.11(d), but the reporting and stipulated penalty provisions of this Section shall not apply after termination.

47. Investigation and Reporting. By no later than sixty (60) Days after the end of an

Acid Gas Flaring Incident occurring after the Date of Entry, the Refinery shall conduct an investigation into the Root Cause(s) of the incident and record the findings of the investigation in a report. The report for each incident shall include at a minimum 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, Hess shall set forth the starting and ending dates and times of each release;
- b) An estimate of the quantity of SO₂ that was emitted and the calculations that were used to determine that quantity;
- c) The steps, if any, that Hess took to limit the duration and/or quantity of SO₂ emissions associated with the Acid Gas Flaring Incident;
- d) A detailed analysis that sets forth the Root Cause and all contributing causes of that Acid Gas Flaring Incident, to the extent determinable;
- e) An analysis of the measures, if any, which are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or contributing causes in the future. 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 Hess concludes that corrective action(s) is (are) required under Paragraph 48, the report of the Acid Gas Flaring Incident in the Semi-Annual Report required by Paragraph 56 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 Hess

concludes that corrective action is not required under Paragraph 48, 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 50 and 51 and describes whether the Acid Gas Flaring Incident falls under any of those grounds, provided, however, that Hess 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 Hess's potential defenses;
 - ii) describes whether Paragraph 50 or 51 applies to the Acid Gas Flaring Incident and why, and, if Paragraph 51 applies, describes whether Subparagraph (a) or (b) applies and why; and
 - iii) states whether or not Hess asserts a defense to such Acid Gas 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 this Paragraph shall be completed; provided, however, that if Hess has not completed a report or a series of reports containing the information required under this Paragraph within forty-five (45) Days (or such additional time as EPA, after consultation with NJDEP, may allow) after the due date for the initial report for any

Acid Gas Flaring Incident, the stipulated penalty provisions of Paragraph 124(b) shall apply for failure to timely complete or submit the report, but Hess shall retain the right to dispute, under the dispute resolution provision, any demand for stipulated penalties that was issued as a result of Hess's failure to complete or submit the report required under this Paragraph within the time frame set forth. Nothing in this Paragraph shall be deemed to excuse Hess from its investigation, reporting, and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an incident for which Hess has requested an extension of time under this Paragraph; and

h) To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the completion of the report required under this Paragraph, then, by no later than thirty (30) Days after completion of the implementation of corrective action(s), Hess shall supplement the report to identify the corrective action(s) taken and the dates of commencement and completion of implementation.

48. Corrective Action.

a) In response to an Acid Gas Flaring Incident occurring after the Date of Entry, Hess 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 contributing causes of that Acid Gas Flaring Incident.

b) EPA does not, however, by its consent to the entry of this Consent Decree or by its failure to object to any corrective action that Hess 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. Notwithstanding EPA's review of any plans, reports, corrective actions or procedures under this Section, Hess shall remain solely

responsible for non-compliance with the Clean Air Act and its implementing regulations.

Nothing in this Section shall be construed as a waiver of EPA's rights under the Clean Air Act and its regulations for future violations of the Act or its regulations.

c) After a review of any report required by Paragraph 47 and submitted as required by Paragraph 56, EPA, after consultation with NJDEP, shall notify Hess in writing of (1) any deficiencies in the corrective actions listed in the findings and/or (2) any objections to the schedules of implementation of the corrective actions and explain the basis for EPA's objections. Hess will implement an alternative or revised corrective action or implementation schedule based on EPA's comments. If a corrective action that EPA has identified as deficient has already commenced or is already completed, then Hess is not obligated to implement corrective action identified by EPA for that Acid Gas Flaring Incident provided that Hess completes the corrective action that it has identified and commenced. For purposes of this Subparagraph, "commenced" means Hess has (i) commenced actual physical construction on the corrective action, or (ii) completed the engineering design for the corrective action and has purchased or entered into a binding contractual obligation (with adverse consequences from its breach) to purchase equipment necessary to implement the corrective action. However, Hess will be put on notice that such corrective action is deficient and not acceptable for remedying any subsequent, similar Root Cause(s) of any Acid Gas Flaring Incident. If EPA, after consultation with NJDEP, and Hess cannot agree on the appropriate corrective action(s) or implementation schedules, if any, to be taken in response to a particular incident, either Party may invoke the Dispute Resolution provisions of Part XIV.

d) Nothing in this Section shall be construed to limit the right of Hess to take such corrective actions as it deems necessary and appropriate immediately following an Acid Gas

Flaring Incident or in the period during preparation and review of any reports required under this Section.

49. Stipulated Penalties for Acid Gas Flaring Incidents. The provisions of Paragraphs 50 through 53 shall apply to any Acid Gas Flaring Incident at the Refinery.

50. The stipulated penalty provisions of this Paragraph through Paragraph 53 shall apply to any Acid Gas Flaring Incident for which the Root Cause was one or more of the following acts, omissions, or events:

- a) Error resulting from careless operation by the personnel charged with the responsibility for the Sulfur Recovery Plant or Upstream Process Units;
- b) Failure to follow written procedures; and
- c) A failure of a part, equipment or system that is due to a failure by Hess to operate and maintain that part, equipment or system in a manner consistent with good engineering practice.

51. If the Acid Gas Flaring Incident is not a result of one of the Root Causes identified in Paragraph 50, then the stipulated penalty provisions of Paragraph 124(a) shall apply if the Acid Gas Flaring Incident:

- a) Results in emissions of SO₂ at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more and Hess 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 SO₂ 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). In the event that an Acid Gas Flaring Incident falls under both Paragraphs 50 and 51, this Paragraph shall apply.

52. With respect to any Acid Gas Flaring Incident not identified in Paragraph 50 or 51 the following provisions shall apply:

a) Agreed Upon Malfunction: 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 incidents, and the stipulated penalty provisions of Paragraph 124 shall not apply.

b) First Time: If the Root Cause of the Acid Gas Flaring Incident was sudden and infrequent but reasonably preventable through the exercise of good engineering practices, then Hess shall implement corrective action(s) pursuant to Paragraph 48 and the stipulated penalty provisions of Paragraph 124(a) shall not apply.

c) Recurrence: If the Root Cause of the Acid Gas Flaring Incident is a recurrence of the same Root Cause that caused a previous Acid Gas Flaring Incident occurring after the Date of Entry, then the stipulated penalty provisions of Paragraph 124(a) shall apply unless either the Root Cause of the previous Acid Gas Flaring Incident was designated as an agreed upon Malfunction under Paragraph 52(a), or Hess was in the process of timely developing or implementing a corrective action plan pursuant to Paragraph 48 for the previous Acid Gas Flaring Incident.

53. Defenses: Hess may raise the following defenses in response to a demand by the United States for stipulated penalties:

- a) Force Majeure;
- b) As to Paragraph 50, the Acid Gas Flaring Incident does not meet the identified criteria;

c) As to Paragraph 51, the Acid Gas Flaring Incident does not meet the identified criteria and/or was due to a Malfunction; or

d) As to Paragraph 52, the Acid Gas Flaring Incident does not meet the identified criteria, was due to a Malfunction and/or Hess was in the process of timely developing or implementing a corrective action plan pursuant to Paragraph 48.

54. In the event a dispute under Paragraphs 50 or 51 is brought to the Court pursuant to the Dispute Resolution provisions of Part XIV, Hess may also assert a Startup, Shutdown, and/or upset defense, but the United States shall be entitled to assert that such defenses are not available. If Hess prevails in persuading the Court that the defenses of Startup, Shutdown, and/or upset are available for Acid Gas Flaring Incidents under 40 C.F.R. § 60.104(a)(1), Hess 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 of startup, shutdown, and/or upset are not available, Hess shall be liable for such stipulated penalties.

55. Acid Gas and Hydrocarbon Flaring Calculations.

a) Calculation of the Quantity of SO₂ Emissions Resulting from AG or HC Flaring.

For purposes of this Consent Decree, the quantity of SO₂ emissions resulting from AG or HC Flaring shall be calculated by the following formula:

$$\text{Tons of SO}_2 = [\text{FR}][\text{TD}][\text{ConcH}_2\text{S}][8.44 \times 10^{-5}].$$

The quantity of SO₂ 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 SO₂ emitted shall be rounded to 10.1 tons, and less than 10.050 shall be rounded to 10.0.) For purposes of determining the occurrence of, or the total quantity of SO₂ emissions resulting from, AG or HC

Flaring that is comprised of intermittent flaring, the quantity of SO₂ emitted shall be equal to the sum of the quantities of SO₂ flared during each 24-hour period starting when gas was first flared.

b) Calculation of the Rate of SO₂ Emissions During AG or HC Flaring. For purposes of this Consent Decree, the rate of SO₂ emissions resulting from AG or HC Flaring shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

$$ER = [FR][ConcH_2S][0.169].$$

The emission rate shall be rounded to one decimal point, as described in Paragraph 55(a).

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

ER = Emission Rate in pounds of SO₂ per hour

FR = Average Flow Rate to Flaring Device(s) during Flaring in standard cubic feet per hour

TD = Total Duration of Flaring in hours

ConcH₂S = Average Concentration of Hydrogen Sulfide in gas during Flaring (or immediately prior to Flaring if all gas is being flared) expressed as a volume fraction (scf H₂S/scf gas)

8.44×10^{-5} = [lb mole H₂S/379 scf H₂S][64 lbs SO₂/lb mole H₂S][Ton/2000 lbs]

0.169 = [lb mole H₂S/379 scf H₂S][1.0 lb mole SO₂/1 lb mole H₂S][64 lb SO₂/1.0 lb mole SO₂]

The flow of gas to Flaring Device(s) ("FR") shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration ("ConcH₂S") shall be determined from the SRP 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 NJDEP. 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 to be prepared under Paragraph 47 shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

56. Semi-Annual Reporting. Within thirty (30) Days after the end of the first semi-annual period after the Date of Entry, and semi-annually on each subsequent January 31 and July 31 thereafter, Hess shall submit a semi-annual report that includes copies of each and every report of all Acid Gas Flaring Incidents, as required in Paragraph 47, that Hess was required to prepare during the previous six (6) month period (e.g., July to December). Each Semi-Annual report shall also include a summary of the incidents including the following:

- a) Date;
- b) Summary of Root Cause(s);
- c) Duration;
- d) Amount of SO₂ released;
- e) Any associated penalties for each incident;
- f) Corrective action completed; and
- g) A list of all Acid Gas Flaring Incidents for which corrective actions are still outstanding.

Such Semi-Annual report shall also include a summary analysis of any trends identified by Hess in the number, Root Cause, types of corrective action, or other relevant information regarding Acid Gas Flaring Incidents during the previous six (6) month period. Hess shall submit the Semi-Annual Flaring Incident(s) reports as part of the Semi-Annual Progress Reports required pursuant to Part VIII (Reporting and Recordkeeping).

K. Control of Hydrocarbon Flaring Incidents.

57. For Hydrocarbon Flaring Incidents occurring after the Date of Entry, Hess shall

follow the same investigative, reporting, and corrective action procedures as those set forth in Paragraphs 47 and 48 for Acid Gas Flaring Incidents; provided however, that in lieu of analyzing possible corrective actions under Paragraph 47 and taking interim and/or long-term corrective action under Paragraph 48(a) for a Hydrocarbon Flaring Incident attributable to the Startup or Shutdown of a unit that Hess has previously analyzed under this Paragraph, Hess may identify such prior analysis when submitting the report required under this Paragraph. Hess shall submit the Hydrocarbon Flaring Incident(s) reports as part of the Semi-Annual Progress Reports required pursuant to Part VIII (Reporting and Recordkeeping).

58. Stipulated Penalties Under this Section. Stipulated penalties under Paragraphs 50 through 53 and 124(a) shall apply to Hydrocarbon Flaring Incident(s), except that (i) the stipulated penalty amounts shall be 75% of those set forth in Paragraph 124(a) and (ii) Subparagraphs 51(a) and (b) shall be replaced with the following:

a) Results in emissions of SO₂ at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more, and Hess failed to act in accordance with 40 CFR § 60.11(d); or

b) Causes the total number of Hydrocarbon Flaring Incidents in a rolling twelve (12) month period to exceed ten (10) for the first three (3) years following the Date of Entry or causes the total number of Hydrocarbon Flaring Incidents in a rolling twelve (12) month period to exceed five (5) thereafter.

59. The formulas at Paragraph 55, used for calculating the quantity and rate of sulfur dioxide emissions during AG Flaring Incidents, shall be used to calculate the quantity and rate of sulfur dioxide emissions during Hydrocarbon Flaring Incidents. If the Refinery determines that the Hydrocarbon Flaring Incident is attributable solely to the combustion of refinery fuel gas that

contains less than 160 ppm of H₂S, it shall so demonstrate in its report under this Section, and no further action shall be required for such incidents.

60. Other than for a Malfunction or Force Majeure, if no Acid Gas Flaring Incident or Hydrocarbon Flaring Incident and no violations of emissions limits for flares as fuel gas combustion devices under NSPS Subparts A and J occurs at the Refinery for a rolling 36 month period, then the stipulated penalty provisions of Paragraph 124(a) shall no longer apply. EPA, after consultation with NJDEP, may elect to reinstate the stipulated penalty provision if the Refinery has an Acid Gas Flaring Incident or Hydrocarbon Flaring Incident that would otherwise be subject to stipulated penalties. Upon election to reinstate the stipulated penalty provisions, EPA shall notify Hess. EPA's decision shall not be subject to dispute resolution under Part XIV. Once reinstated, the stipulated penalty provision shall thereafter apply to future Acid Gas Flaring Incidents and Hydrocarbon Flaring Incidents and continue for the remaining life of this Consent Decree.

L. Benzene Waste NESHAP Program Enhancements.

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

61. Current Compliance Status. Hess has determined that the Refinery has a TAB of less than 10.0 Mg/yr and as such is exempt from the control requirements of the Benzene Waste NESHAP.

62. Refinery Compliance Status Changes. If at any time from the Date of Entry through the Consent Decree termination the Refinery is determined to have a TAB equal to or

greater than 10 Mg/yr, it shall comply with the compliance option set forth at 40 CFR § 61.342(e) ("6 BQ Compliance Option").

63. Update of the Refinery's Benzene Waste NESHAP TAB and Compliance with the Benzene Waste NESHAP.

a) Phase One of the Review and Verification Process. By no later than twelve (12) months from the Date of Entry, Hess shall complete a review and verification of the Refinery's most recent TAB. Such review and verification process shall include, but not be limited to:

- i) an identification of each waste stream that is required to be included in the Refinery's TAB (e.g., slop oil, tank water draws, spent caustic, other sample wastes, maintenance wastes, and turnaround wastes (that meet the definition of waste under Subpart FF));
- ii) 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;
- iii) 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, 40 C.F.R. § 61.355(c)(2), for streams not sampled.

By no later than thirty (30) Days following the completion of Phase One of the review and verification process, Hess shall submit a Benzene Waste NESHAP Compliance Review and Verification report ("BWON Compliance Review and Verification Report") to EPA and NJDEP

that sets forth the results of Phase One, including but not limited to the items identified in this Paragraph.

b) Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review and Verification Reports, EPA may select up to 20 additional waste streams for sampling for benzene concentration. Hess will conduct the required sampling and submit the results to EPA and NJDEP within ninety (90) Days of receipt of EPA's request. The Refinery 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 Hess to re-sample any waste stream as part of the Phase Two Review that Hess sampled on or after January 1, 2008, Hess may average the results of such sampling events. If needed, Hess shall submit an amended BWON Compliance Review and Verification Report within ninety (90) Days following the date of the completion of its required Phase Two sampling, if Phase Two sampling is required by EPA.

64. Implementation of Actions Necessary to Correct Non-Compliance or to Come Into Compliance.

a) Amended TAB Report. If the results of the BWON Compliance Review and Verification Report indicate that the Refinery's most recently-filed TAB report does not satisfy the requirements of Subpart FF, Hess shall submit, by no later than sixty (60) Days after submittal of the BWON Compliance Review and Verification Report, an amended TAB report to the EPA and NJDEP. Hess's BWON Compliance Review and Verification Reports shall be deemed an amended TAB report for purposes of Subpart FF reporting to EPA and NJDEP.

b) If the results of the BWON Compliance Review and Verification Report indicate that Hess has a TAB of over 10 Mg/year, it shall submit to EPA and NJDEP, by no later than

sixty (60) Days after submittal of the BWON Compliance Review and Verification Report, a plan that identifies with specificity the schedule that the Refinery will implement to ensure compliance with all applicable requirements as soon as practicable. If the results of the BWON Compliance Review and Verification Report indicate that the TAB at the Refinery is: (i) below 1 Mg/yr; or (ii) less than 10 Mg/yr but equal to or greater than 1 Mg/yr, the Refinery shall comply with the applicable Benzene Waste NESHAP regulations for such categories of refineries and the relevant paragraphs of this Part.

c) Review and Approval of Plans. Any plans submitted pursuant to Paragraph 64(b) shall be subject to the approval of, disapproval of, or modification by EPA, which shall act after an opportunity for consultation with NJDEP. Within sixty (60) Days after receiving any notification of disapproval or request for modification from EPA, Hess shall submit to EPA and NJDEP a revised plan that responds to all identified deficiencies. Upon receipt of EPA's approval or approval with conditions, it shall implement the plan. Disputes arising under this Subparagraph shall be resolved in accordance with the dispute resolution provisions of Part XIV.

65. Laboratory Audits. The Refinery shall conduct audits of all laboratories that perform its analyses of Benzene Waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed. If and to the extent that Hess submits its Benzene Waste NESHAP samples to laboratories certified by New Jersey to analyze for benzene, the Refinery need not separately audit such laboratory(ies) under this Paragraph.

a) By no later than twelve (12) months after Date of Entry, the Refinery shall complete at least three audits of laboratories used by it. By no later than twenty-four (24) months after Date of Entry, the Refinery shall complete audits of all other laboratories used by it to perform Benzene Waste NESHAP analysis. In addition, beginning twenty-four (24) months after

Date of Entry, the Refinery shall audit any laboratory to be used for its analyses of benzene samples prior to such use.

b) If Hess has completed an audit of any laboratory on or after January 1, 2008, it shall not be required to perform additional audits of those laboratories pursuant to Paragraph 65(a), above.

c) During the life of this Consent Decree, the Refinery shall conduct subsequent laboratory audits as necessary, such that each laboratory used by it is audited every two (2) years.

d) Hess may retain third parties to conduct these audits or use audits conducted by others as its own, but the responsibility and obligation to ensure compliance with this Consent Decree and Subpart FF are solely Hess's.

66. Benzene Spills. Beginning on the Date of Entry, for each spill at the Refinery, Hess shall review such spills to determine if more than 10 pounds of benzene waste was generated as a result of the spills in any 24 hour period. Hess shall include the benzene generated by such spills in the TAB and in the uncontrolled benzene quantity calculations for the Refinery, as and to the extent required by Subpart FF.

67. Training.

a) By no later than ninety (90) Days from the Date of Entry, Hess shall develop and begin annual (i.e., once each calendar year) training for all employees or contractors asked to perform Benzene Waste NESHAP sampling. As part of Hess's training program, Hess must ensure that the employees of any contractors hired to draw benzene waste samples are properly trained to undertake those tasks at the Refinery.

b) If and when the Refinery's TAB reaches 10 Mg/yr or more, Hess shall complete the development of standard operating procedures for all control devices and treatment processes

used to comply with the Benzene Waste NESHAP ("BWON Control and Treatment Devices"). Hess shall complete an initial training program regarding these procedures for all persons assigned to operate the BWON Control and Treatment Devices. Training shall be provided to any persons who subsequently become operators of the BWON Control and Treatment Devices, prior to their assumption of this duty. "Refresher" training shall be performed on a periodic basis. Hess shall propose a schedule for the initial and refresher training within six (6) months of the Refinery's TAB exceeding 10 Mg/yr.

68. Waste Slop/Off-Spec Oil Management.

a) By no later than twelve (12) months from the Date of Entry, Hess shall submit to EPA and NJDEP schematics for the Refinery that: (i) depict the waste management units (including sewers) that handle, store, and transfer waste slop/off-spec oil streams; (ii) identify the control status of each waste management unit; and (iii) show how such oil is transferred within the Refinery. Representatives from EPA thereafter may confer with Hess about the appropriate characterization of these waste/slop/off-spec oil streams and the controls required by Subpart FF, if any, for the waste management units handling such oil streams for purposes of its TAB calculation and Subpart FF compliance option, if applicable. At a mutually agreed upon time, Hess shall submit revised schematics that reflect the Parties' agreements regarding the characterization of these oil streams and the appropriate control standards, if necessary.

b) Non-Aqueous Benzene Waste Streams. If the Refinery's TAB is equal to or exceeds 10 Mg/yr, all waste management units handling non-exempt, non-aqueous benzene wastes, as defined in Subpart FF, shall meet the control standards of Subpart FF that apply to the Refinery.

c) Aqueous Benzene Waste Streams. For purposes of calculating the Refinery's TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), the Refinery shall 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 shall be made to such calculations to avoid the double-counting of benzene.

69. BWON Sampling Plans: General. By no later than six (6) months after the Date of Entry, Hess shall submit to EPA and NJDEP, a BWON sampling plan designed to describe the sampling of BWON streams that Hess shall undertake to estimate quarterly and annual TABs.

a) For a TAB less than 10 Mg/yr, the sampling plan shall include:

- i) Each waste stream that has contributed 0.05 Mg/yr or more at the point of generation to the previous year's TAB calculations;
- ii) The proposed End-of-Line ("EOL") sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual TAB calculations under the terms of Paragraph 71;
- iii) The sampling plan shall commit Hess to, annually, analyze at least three representative samples from all waste streams identified in Subparagraph (a)(i) and in each calendar quarter at least three representative samples from all waste locations identified in Subparagraph (a)(ii);
- iv) Sampling shall commence no later than the next Calendar Quarter following submittal of the sampling plan;
- v) If after one (1) year, the four quarterly EOL sampling results demonstrate that the TAB is less than 0.5 Mg/yr, the Refinery may discontinue

sampling under this Paragraph; and

vi) If the revised TAB reviewed and verified pursuant to Paragraph 63 and the initial two quarterly EOL sampling results demonstrate that the TAB is less than 0.1 Mg/yr, the Refinery may discontinue sampling under this Paragraph.

b) For TAB greater than or equal to 10 Mg/yr, the sampling plans shall include:

i) Each uncontrolled waste stream that contains greater than 0.05 Mg/yr of benzene at the point of generation;

ii) The proposed End-of-Line (EOL) 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 71;

iii) The sampling plan shall commit Hess to analyze, in each Calendar Quarter, at least three representative samples from all waste streams identified in Subparagraphs (b)(i) and (b)(ii); and

iv) Sampling shall commence within six (6) months of exceeding the 10 Mg/yr.

70. BWON Sampling Plans: Modifications.

a) Changes in Processes, Operations, or Other Factors. If changes in processes, operations, or other factors lead Hess to conclude that a sampling plan for the Refinery may no longer provide an accurate basis for estimating the Refinery's quarterly or annual TABs or benzene quantities under Paragraph 71, then by no later than ninety (90) Days after Hess determines that the plan no longer provides an accurate measure, Hess shall submit to EPA and

NJDEP a revised plan for EPA approval. In the first full Calendar Quarter after submitting the revised plan, Hess shall implement the revised plan. Hess shall continue to implement the revised plan unless and until EPA disapproves the revised plan after an opportunity for consultation with NJDEP.

b) Requests for Modifications. After two (2) years of implementing a sampling plan, Hess may submit a request to EPA for approval, with a copy to NJDEP, to revise the Refinery's sampling plan, including sampling frequency. Hess shall not implement any proposed revisions under this Subparagraph until EPA provides its approval after an opportunity for consultation with NJDEP.

71. 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, Hess shall calculate a quarterly and projected annual TAB quantity. If the TAB is less than 10 Mg/yr, Hess is required under Paragraph 69(a) to take samples. If the TAB is greater than or equal to 10 Mg/yr, the Refinery shall calculate the uncontrolled benzene quantity. In making the calculations required under Paragraph 69(b), Hess shall use the average of the three samples collected at each sampling location. If these calculations do not identify any potential violations of the BWON, Hess shall submit these calculations in the reports due under this Section.

72. Corrective Measures: Except as set forth in Paragraph 73, Hess shall implement corrective measures at the Refinery:

a) In the event of a TAB less than 10 Mg/yr, if 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) In the event of a TAB greater than or equal to 10 Mg/yr, if 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.

73. Exception to Implementing Corrective Measures. If Hess 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 71 and states that it does not expect such reason or reasons to recur, then Hess may exclude the benzene quantity attributable to the identified reason(s) from the projected calendar year quantity. EPA and NJDEP may dispute Hess's determination. If that exclusion results in no potential violation of the Benzene Waste NESHAP, Hess shall not be required to implement corrective measures under Paragraph 72, and Hess may exclude the uncontrolled benzene attributable to the identified reason(s) in determining the applicability of Paragraph 71. At any time that Hess proceeds under this Paragraph, Hess shall describe how it satisfied the conditions in this Paragraph in the reports due under this Section.

74. Corrective Measures Plan. If Hess meets one or more conditions in Paragraph 72 (except as provided under Paragraph 73), 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, Hess shall submit a corrective measures plan to EPA for approval, with a copy to NJDEP. In that corrective measures plan, Hess shall identify the quantity and cause(s) of the potentially-elevated benzene quantities, all corrective actions that Hess has taken or plans to take to ensure that the cause(s) shall not recur, and the schedule of actions that Hess shall take to ensure that the Refinery complies with the Benzene Waste NESHAP for the calendar compliance year. Hess shall implement the plan unless and until EPA disapproves after an opportunity for consultation with

NJDEP.

75. Third-Party Assistance. If at least one of the conditions in Paragraph 72 exists at the Refinery in two consecutive quarters, then Hess shall retain a third-party contractor during the following quarter to undertake a TAB study and compliance review at the Refinery. The TAB study and compliance review shall be completed within 180 Days of the end of the second quarter. By no later than ninety (90) Days after Hess receives the final results of the third-party TAB study and compliance review, Hess shall submit such results and a plan and schedule for remedying any deficiencies identified in the third-party study and compliance review to EPA and NJDEP. Hess shall implement its proposed plan unless and until EPA disapproves after an opportunity for consultation with NJDEP. By no later than thirty (30) Days after completion of the implementation of all actions, if any, required to come into compliance with the applicable compliance option, Hess shall submit its certification and a report to EPA and NJDEP that the Refinery complies with the Benzene Waste NESHAP.

76. Miscellaneous Inspections and Monitoring. By no later than ninety (90) Days following a determination that the TAB is greater than or equal to 10 Mg/yr Hess shall:

- a) Conduct monthly visual inspections of and, if appropriate, refill all Subpart FF water traps within the Refinery's individual drain systems;
- b) If Hess utilizes conservation vents, visually inspect all Subpart FF conservation vents or indicators on process sewers for detectable leaks on a weekly basis, reset any vents where leaks are detected, and record the results of the inspections. After six (6) months of weekly inspections, and based upon an evaluation of the recorded results, Hess may submit a request to the appropriate EPA Region to modify the frequency of the inspections. Alternatively, for conservation vents with indicators that identify whether flow has occurred, Hess may elect to

visually inspect such indicators on a monthly basis and, if flow is then detected, Hess shall then visually inspect that indicator on a weekly basis for four weeks. If flow is detected during any two of those four weeks, Hess shall install a carbon canister or other environmentally equivalent controls on that vent until appropriate corrective action(s) can be implemented to prevent such flow. Nothing in this Subparagraph shall require Hess to monitor conservation vents on fixed roof tanks; and

c) Conduct quarterly monitoring and repair of the oil-water separators consistent with the "no detectable emissions" provision in 40 C.F.R. § 61.347 or conduct quarterly measurements of the oil-water separator seal gap if using the alternative control requirements allowed under § 61.352, if the separator is a control device under Subpart FF.

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

i) By no later than twelve (12) months after the TAB is determined to be greater than or equal to 10 Mg/yr, Hess shall complete installation of primary and secondary carbon canisters at locations currently utilizing single canisters and shall operate them in series. As part of the first semi-annual report due under this Section following completion of the installation of the dual canisters, Hess shall notify EPA and NJDEP that installation has been completed. The report shall include: (1) a list of all locations at the Refinery where carbon canister systems are used as control devices under Subpart FF; (2) an indication, for each location, whether there was a pre-existing secondary carbon canister or whether a secondary carbon canister was installed under this Paragraph; and (3) the installation

date of each such secondary canister installed under this Paragraph and the date that each secondary canister was put into operation.

- ii) For dual carbon canister systems, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than 50 ppm VOC or 1 ppm benzene (depending upon the constituent that Hess decides to monitor).
- iii) Hess shall monitor for breakthrough between the primary and secondary carbon canisters weekly, or in accordance with the frequency specified in 40 C.F.R. § 61.354(d), whichever is more frequent. This requirement shall commence within thirty (30) Days after installation of a new dual carbon canister system.
- iv) Hess shall replace the original primary carbon canister (or route the flow to an appropriate alternative control device) immediately when breakthrough is detected between the primary and secondary canister. The original secondary carbon canister (or a fresh canister) will become the new primary carbon canister and a fresh carbon canister will become the secondary canister. For purposes of this Subparagraph, "immediately" shall mean within eight (8) hours of the detection of a breakthrough for canisters of 55 gallons or less, and within twenty-four (24) hours of the detection of a breakthrough for canisters greater than 55 gallons. In lieu of replacing the primary canister immediately, Hess may elect to monitor the outlet of the secondary canister beginning on the Day the breakthrough between the primary and secondary canister is identified and each Day

thereafter. This daily monitoring shall continue until the primary canister is replaced. If the constituent being monitored (either benzene or VOC) is detected at the outlet of the secondary canister during this period of daily monitoring, both canisters must be replaced within eight (8) hours of the detection of a breakthrough.

- v) Hess shall maintain a readily-available supply of fresh carbon canisters at all times at the Refinery if canisters are used as a control device or shall otherwise ensure that such canisters are readily available to implement the requirements of this Paragraph.

77. Recordkeeping and Reporting Requirements for Section V.L. Hess shall submit, as and to the extent required, the following materials in the progress report(s) for the semi-annual period in which the following identified activities occurred or are required:

- a) BWON Compliance Review and Verification Report (Paragraph 63(a)), as amended, if necessary (Paragraph 63(b));
- b) Amended TAB Report, if necessary (Paragraph 64(a));
- c) Schedule and plan to come into compliance with the applicable compliance option, if the BWON Compliance Review and Verification Reports indicate non-compliance (Paragraph 64(b));
- d) Schedule and plan for the Refinery to come into compliance with the 6 BQ compliance option and the applicable provisions of this Consent Decree, if found to be required (Paragraph 72);
- e) Compliance certification, if and as necessary (Paragraph 75);
- f) Report certifying the completion of the installation of dual carbon canisters, if and

as necessary (Paragraph 76(d));

g) Schematics of waste/slop/off-spec oil movements, as revised, if necessary (Paragraph 68(a));

h) Plan to quantify uncontrolled waste/slop/off-spec oil movements, if and as necessary (Paragraph 68(a));

i) EOL Plans and revised EOL Sampling Plans, if necessary (Paragraph 69);

j) Plan to ensure that uncontrolled benzene does not equal or exceed 6 Mg/yr -- or is minimized -- based on projected calendar year uncontrolled benzene quantities as determined through EOL sampling, if and as necessary (Paragraph 72);

k) Identify all laboratory audits completed during the preceding calendar year under Paragraph 65, including the laboratory audited, a description of the methods used in the audit and the results of the audit;

l) Describe the measures taken that semi-annual period to comply with the training provisions of Paragraph 67; and

m) Provide all quarterly "end of line" benzene determinations and a summary of supporting sampling results for the preceding calendar year under Paragraphs 65 and 66. The report shall include a list of all waste streams sampled and the results of the benzene analysis for each sample.

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

Summary: The Refinery shall 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, by undertaking the enhancements in this Section to its LDAR programs under 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; and applicable state or local LDAR requirements at the Refinery. 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; and applicable state and/or local LDAR regulations.

78. Written Refinery-Wide LDAR Program. By no later than twelve (12) months following Date of Entry, Hess shall develop and maintain a written LDAR program for compliance with all applicable federal and state LDAR regulations applicable to equipment in light liquid or gas/vapor service at the Refinery. Hess shall implement the program and update such program as may be necessary to ensure continuing compliance. The Refinery's program shall include at a minimum:

- a) An overall Refinery leak rate goal including goals on a process-unit-by-process-unit basis;
- b) An identification of all equipment in light liquid and/or in gas/vapor service that has the potential to leak VOCs, HAPs, VHAPs, and benzene. The Refinery is not required to identify any equipment or units not otherwise subject to any applicable federal or state LDAR regulation;
- c) Procedures for identifying leaking equipment within process units;
- d) Procedures for repairing and keeping track of leaking equipment;
- e) Procedures for identifying and including in the LDAR program new equipment;
- f) A process for evaluating new and replacement equipment to promote consideration and installation of equipment that will minimize leaks and/or eliminate chronic

leakers; and

g) A description of the Refinery's LDAR monitoring organization and a designation of the person or position that is responsible for LDAR management and that has the authority to implement LDAR improvements at the Refinery, as required by Paragraph 89.

79. Hess shall submit a copy of the Refinery's initial written LDAR program to EPA and to NJDEP. EPA shall review and may comment on the written program after an opportunity for consultation with NJDEP. Hess 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.

80. Training. By no later than twelve (12) months from Date of Entry, Hess shall implement the following training programs at the Refinery:

a) For personnel newly-assigned to LDAR responsibilities, require LDAR training or require its LDAR contractor to provide such training prior to each employee beginning such work;

b) For all personnel assigned LDAR responsibilities, provide and require completion of annual LDAR training or require its LDAR contractor to provide such training (initial annual LDAR training for all such personnel will be completed not later than twelve (12) months after Date of Entry); and

c) For all other Refinery operations and maintenance personnel (including contract personnel), require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties (initial LDAR training for all such personnel will be completed not later than twelve (12) months after Date of Entry). "Refresher" training in LDAR shall be performed on a three (3) year cycle.

d) If contract employees are performing LDAR work, Hess's contractor will make its training records available to Hess for the contract employees.

81. LDAR Audits. Hess shall implement audits according to the schedule and requirements set forth in this Paragraph to ensure the Refinery's compliance with all applicable LDAR requirements. The LDAR audits shall include comparative monitoring at valves and pumps, observation of the LDAR technicians' calibration and monitoring techniques, records review to ensure monitoring and repairs were completed in the required periods, a field audit to ensure affected equipment has been identified and included in the facility LDAR program, and a review to ensure records and reports have been maintained and submitted as required. During the LDAR audits, leak rates shall be calculated for each process unit where comparative monitoring was performed. Each LDAR audit shall be conducted by personnel with expertise in LDAR regulations.

a) Initial Audit. By no later than six (6) months after the Date of Entry, Hess shall engage a third-party contractor to undertake a refinery-wide audit of its compliance with the LDAR regulations, including, at a minimum, each of the audit requirements set forth in this Paragraph. The initial third-party audit for the Refinery shall be completed and submitted to EPA and NJDEP no later than twelve (12) months after Date of Entry. Hess shall report to EPA and NJDEP 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. If the proposed compliance schedule extends greater than sixty (60) Days beyond the date the LDAR audit report is submitted to EPA, Hess must seek approval of the compliance schedule from EPA. Hess shall implement the compliance schedule as proposed until the schedule is approved or disapproved by EPA, after consultation with NJDEP. Within sixty (60) Days of completing

the initial audit, Hess shall certify to EPA that the Refinery:

- i) is in compliance; has completed related corrective action (if necessary); or is on a compliance schedule; and
- ii) shall specifically certify that all affected equipment has been identified and included in the Refinery LDAR program to the extent required by the applicable regulations as of the Date of Entry.

b) Third-Party Audits. Hess shall retain a contractor(s) to perform a third-party audit of the Refinery's LDAR program at least once every four (4) years after completion of the initial audit.

c) Internal Audits. Hess shall conduct internal audits of the Refinery's LDAR program by sending personnel familiar with the LDAR program and its requirements from the Refinery or other locations to audit the Refinery. Hess shall complete an internal LDAR audit by no later than twenty-four (24) months from the date of the completion of the third-party audits required in Subparagraphs (a) and (b). Hess shall perform an internal audit of its Refinery's LDAR program at least once every four (4) years. Hess may elect to retain third-parties to undertake the internal audit.

d) To ensure that an audit occurs every two (2) years at the Refinery, third-party and internal audits shall be separated by not more than twenty-four (24) months between LDAR audit report submittal dates.

82. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the audits conducted pursuant to Paragraph 81 identify any areas of non-compliance, Hess shall implement, as soon as practicable, all steps necessary to correct the area(s) of non-compliance and to prevent, to the extent practicable, a recurrence of the cause of such non-

compliance. For purposes of this Paragraph, if a ratio of the process units component leak percentage, established through a comparative monitoring audit conducted under Paragraphs 81, and the average component leak percentage reported for the process unit for the four quarters immediately preceding the audit is in excess of 3.0, and provided the auditor identified at least three (3) leaking components in the process unit, it shall be deemed a cause for corrective action and shall be subject to stipulated penalties as provided in Paragraph 127(d). If the calculated ratio yields an infinite result, Hess shall use a number of 1 in the denominator and recalculate the ratio. Until two (2) years after termination of this Consent Decree Hess shall retain the audit reports generated pursuant to Paragraph 81 and shall maintain a written record of the corrective actions taken by the Refinery in response to any deficiencies identified in any audits. Hess shall retain the audit reports generated pursuant to Paragraph 81 and shall maintain a written record of the corrective actions that it takes in response to deficiencies identified in any audits. Hess shall submit to EPA and NJDEP the final audit reports and corrective action records within sixty (60) Days of receipt of the final audit report.

83. Internal Leak Definition for Valves and Pumps. Hess 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.

a) Leak Definition for Valves. By no later than twelve (12) months after Date of Entry, Hess shall utilize an internal leak definition of no greater than 500 ppm VOCs for the Refinery's valves in light liquid or gas/vapor service, excluding pressure relief devices.

b) Leak Definition for Pumps. By no later than twelve (12) months after Date of Entry, Hess shall utilize an internal leak definition of no greater than 2000 ppm VOC for the Refinery's pumps in light liquid or gas/vapor service.

84. Reporting, Recording, Tracking, Repairing and Remonitoring Leaks of Valves and Pumps Based on the Internal Leak Definitions.

a) Reporting. For regulatory reporting purposes, the Refinery may continue to report leak rates in valves and pumps against the applicable regulatory leak definition, or may use the lower, internal leak definitions specified in Paragraph 83.

b) Recording, Tracking, Repairing and Remonitoring Leaks. Hess shall record, track, repair, and re-monitor all leaks in excess of the internal leak definitions of Paragraph 83 at such time as those definitions become applicable. Except as otherwise provided in this Section, the Refinery shall make a first attempt at repair within five (5) Days and either complete repairs and re-monitor leaks or place such component on the Refinery's delay of repair list within thirty (30) Days.

85. Initial Attempt at Repair of Valves. By no later than ninety (90) Days after Date of Entry, the Refinery shall promptly make an "initial attempt" to repair any valve that has a reading (taken more than 90 Days after the Date of Entry) greater than 200 ppm of VOC, excluding control valves and components that LDAR personnel are not authorized to repair. Initial attempt at repair includes only minor work which does not require physical changes to the leaking equipment, other than wrench-tightening of packing of the equipment. The Refinery or its designated contractor shall re-monitor immediately or within five (5) Days, all valves that LDAR personnel attempted to repair under this Paragraph. Unless the re-monitored leak rate is greater than the applicable leak definition, no further action will be necessary.

86. LDAR Monitoring Frequency.

a) Pumps. When the lower internal leak definition for pumps becomes applicable under Paragraph 83(b) and unless more frequent monitoring is required by applicable federal,

state and/or local requirements, the Refinery shall monitor pumps at the internal leak definition on a monthly basis.

b) Valves. When the lower internal leak definition for valves becomes applicable under Paragraph 83(a) and unless more frequent monitoring is required by applicable federal, state and/or local requirements, the Refinery shall monitor valves at the internal leak definition on a quarterly basis (other than difficult to monitor or unsafe to monitor valves).

87. Electronic Monitoring, Storing, and Reporting of LDAR Data.

a) Electronic Storing and Reporting of LDAR Data. The Refinery has and will continue to maintain an electronic database for storing and reporting LDAR data. By no later than six (6) months after Date of Entry, the electronic database shall include data identifying the date and time of the monitored event, and the operator and instrument used in the monitored event.

b) Electronic Data Collection During LDAR Monitoring and Transfer Thereafter. By no later than six (6) months after Date of Entry, the Refinery shall use dataloggers and/or electronic data collection devices during all LDAR monitoring. The Refinery shall use, or shall ensure that its designated contractor shall use, its best efforts to transfer by the end of the next business day, electronic data from electronic data logging devices to the electronic database of Subparagraph (a). 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 identify the operator/monitoring technician and the monitoring instrument used. The Refinery may use paper logs where necessary or more feasible (e.g., small rounds, re-monitoring, or when data loggers are not available or broken), and shall record, at a minimum, the identity of the technician, the date, monitoring starting and ending times, and an identification of the monitoring equipment.

The Refinery shall use, or shall ensure that its designated contractor shall use, its best efforts to transfer any manually recorded monitoring data to the electronic database of Subparagraph (a) within seven (7) Days of monitoring.

88. QA/QC of LDAR Data. By no later than three (3) months after Date of Entry, the Refinery (or a third party contractor retained by it) shall have developed and begun implementing procedures for quality assurance/quality control ("QA/QC") reviews of all data generated by LDAR monitoring technicians. Hess shall ensure that monitoring data provided by its contractors is periodically reviewed for QA/QC by the contractors. At least once per Calendar Quarter, the Refinery shall perform a QA/QC review of each contractor's monitoring data for accuracy which shall include: number of components monitored per technician, time between monitoring events and abnormal data patterns.

89. LDAR Personnel. Hess has established a program that holds LDAR personnel accountable for LDAR performance at the Refinery. Hess shall continue to maintain a position at the Refinery that is responsible for LDAR management and that has the authority to implement LDAR improvements.

90. Adding New Valves and Pumps. By no later than six (6) months after Date of Entry, Hess shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added during maintenance and construction are integrated into the Refinery's LDAR program.

91. Calibration/Calibration Drift Assessment.

a) Calibration. The Refinery shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

b) Calibration Drift Assessment. By no later than six (6) months after Date of Entry, the Refinery shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The Refinery shall conduct the calibration drift assessment using a calibration gas with a concentration approximately equal to the applicable internal leak definition. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the Refinery shall re-monitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall re-monitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

92. Delay of Repair.

a) By no later than six (6) months after Date of Entry, Hess shall take the following actions for any equipment at the Refinery that it intends and is allowed to place on the "delay of repair" list under applicable regulations:

- i) Require sign-off by the appropriate supervisor within thirty (30) Days of identifying that a piece of equipment is leaking at a rate greater than the applicable leak definition and that such equipment qualifies for delayed repair under applicable regulations,
- ii) Include equipment that is placed on the "delay of repair" list in its regular LDAR monitoring,
- iii) Use its best efforts to isolate and repair pumps identified as leaking at a rate of 2,000 ppm or greater.

b) Twelve (12) months after Date of Entry, for valves leaking at a rate of 10,000 ppm or greater (other than control valves and pressure relief valves) that qualify to be on the "delay of

repair” list at the Refinery, Hess shall use the “drill and tap” method (or an equivalent), rather than place a valve on the “delay of repair” list, unless Hess can demonstrate that there is a safety or major environmental concern resulting from attempting to repair the leak in this manner. Hess shall perform the first “drill and tap” (or equivalent repair method) within fifteen (15) Days and a second attempt (if necessary) within thirty (30) Days after the leak is detected. After two unsuccessful attempts to repair a leaking valve through the drill and tap (or equivalent) method, the leaking valve may be placed on the Refinery’s “delay of repair” list.

c) If a new valve repair method not currently in use by the refining industry is planned to be used by the Refinery, it will advise EPA prior to implementing such a method or, if prior notice is not practicable, as soon as practicable after implementation.

d) By no later than two (2) years from the Date of Entry, no more than 0.2% of the Refinery’s valves may be in a delay of repair status.

93. Chronic Leakers. A valve will be classified as a “chronic leaker” under this Paragraph if it leaks above 5,000 ppm VOC twice in any four (4) consecutive quarters. Following the identification of a “chronic leaker” non-control valve in a process unit, the Refinery will replace, repack, or perform similarly effective repairs on the chronic leaker during the process unit’s next turnaround occurring after the identification of the valve as a “chronic leaker.”

94. Recordkeeping and Reporting Requirements for this Paragraph.

a) As Part of Semi-Annual Progress Reports - Part VIII (Reporting and Recordkeeping). Consistent with the requirements of Part VIII (Reporting and Recordkeeping), Hess shall include the following information in the Semi-annual progress report(s) in which the identified activity occurred or was required:

- i) A notification that training has been implemented as required by Paragraph 80;
- ii) Notification that the lower leak definitions and increased monitoring frequencies have been implemented according to Paragraphs 83 (Internal Leak Definition for Valves and Pumps) and 86 (LDAR Monitoring Frequency);
- iii) Notification that the "initial attempt at repair" program under Paragraph 85 (Initial Attempt at Repair of Valves) has been implemented;
- iv) Notification that the QA/QC procedures under Paragraph 88 for reviewing data generated by LDAR technicians have been implemented;
- v) An identification of the Refinery's LDAR coordinator;
- vi) Notification that the tracking program under Paragraph 90 for new valves and pumps added during maintenance and construction has been developed and is being implemented;
- vii) Notification that the calibration drift assessment procedures under Paragraph 91(b) have been implemented;
- viii) Notification that the "delay of repair" procedures under Paragraph 92 have been implemented; and
- ix) A copy of the Refinery's written refinery-wide LDAR program when required to be submitted pursuant to Paragraph 79.

b) In Each Report Due under 40 C.F.R. § 63.654. In each report due under 40 C.F.R.

§ 63.654, Hess shall include the following information on LDAR monitoring:

- i) a list of the process units monitored during the quarter, with the number of valves and pumps;
- ii) the number of valves and pumps monitored in each process unit;
- iii) the number of valves and pumps found leaking;
- iv) the number of "difficult to monitor" pieces of equipment monitored;
- v) the projected month of the next monitoring event for that unit;
- vi) a list of all equipment currently on the "delay of repair" list and the date each component was placed on the list;
- vii) the number of repairs not completed within five (5) Days pursuant to Paragraph 85;
- viii) the number of repairs not completed within thirty (30) Days under Paragraph 92;
- ix) the number of chronic leaker repairs not completed as required under Paragraph 93; and
- x) except for equipment on the difficult to monitor list, an explanation for not performing monitoring if the number of valves and pumps present exceeds the number of valves and pumps monitored during the Calendar Quarter.

N. Incorporation of Consent Decree Requirements into Federally Enforceable Permits.

95. Obtaining Permit Limits for Emission Limits That Are Effective Upon Entry. By no later than six (6) months after the Date of Entry, Hess shall submit applications to the relevant permitting authority to incorporate the emissions limits and standards required by this Consent Decree that are effective as of the Date of Entry into federally enforceable minor or major New Source Review permits or other permits (other than Title V permits) that are federally

enforceable. Hess may satisfy this requirement by submitting applications or amendments and/or supplements to incorporate as an applicable requirement the emissions limits and standards required by the Consent Decree that are effective as of the Date of Entry to NJDEP's consolidated Title V construction and operating permit program. Following submission of the complete permit application, Hess shall cooperate with the permitting authority by promptly submitting all relevant information that the permitting authority seeks following its receipt of the permit application.

96. Obtaining Permit Limits For Consent Decree Emissions Limits That Become Effective After Date of Entry. As soon as practicable but in no event later than six (6) months after the effective date or establishment of any emissions limits and standards required by this Consent Decree other than those effective as of the Date of Entry, Hess shall submit applications to the relevant permitting authority to incorporate the emissions limits and standards required by this Consent Decree into federally enforceable minor or major New Source Review permits or other permits (other than Title V permits) that are federally enforceable. Hess may satisfy this requirement by submitting applications or amendments and/or supplements to incorporate as an applicable requirement the emissions limits and standards required by the Consent Decree that are effective after the Date of Entry to NJDEP's consolidated Title V construction and operating permit program. Following submission of the complete permit application, Hess shall cooperate with the permitting authority by promptly submitting all relevant information that the permitting authority seeks following its receipt of the complete permit application.

97. 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 Refinery as required by Paragraphs 95 and 96 shall be in accordance with the Title V rules at N.J.A.C. 7:27-22.1 et seq.

98. Construction Permits. Hess agrees to use best efforts to obtain all required, federally enforceable permits under NJDEP's consolidated Title V construction and operating permit program for the construction of the pollution control technology and/or the installation of equipment necessary to implement the requirements of this Consent Decree. Hess shall submit a complete permit application to the NJDEP in a timely manner, providing a sufficient and reasonable period for NJDEP to process the application. Following submission of the complete permit application, Hess shall cooperate with the permitting authority by promptly submitting all relevant information that the permitting authority seeks following its receipt of the complete permit application. Hess may seek relief under the provisions of Part XIII (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Hess has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

99. Obligations that Shall Survive Consent Decree Termination. The requirements imposed by the following provisions of this Consent Decree shall survive termination of the Consent Decree under Part XVII:

a) Emission Limits and Standards. The following Consent Decree requirements shall constitute emission limits and standards that shall survive termination of the Consent Decree by virtue of being incorporated into federally-enforceable permits:

- i) Paragraphs 16, 17 and 18 in Section V.A (*FCCU NO_x controls and limits*);
- ii) Paragraphs 19, 20, and 21 in Section V.B (*FCCU SO₂ limits*);
- iii) Paragraphs 22, 23, 24 and 25 in Section V.C (*FCCU PM limits*);

- iv) Paragraphs 26, 27 (if applicable as of the date of termination), 28 and 29 in Section V.D (*FCCU CO limits*);
- v) Paragraph 30 in Section V.E (*FCCU Regenerator limits*);
- vi) Paragraphs 31 and 32 in Section V.F (*Heater and Boiler NO_x limits*);
- vii) Paragraphs 33 and 35 in Section V.G (*NSPS for Heaters and Boilers and SO₂ controls*);
- viii) Paragraphs 37 and 38 in Section V.H (*NSPS for SRPs*);
- ix) Subparagraph 39.a (as specified therein) in Section V.H (*PMO Plans*);
- x) Paragraphs 40, 41.a, b, and/or c, and 43 in Section V.I (*NSPS for flaring devices*);
- xi) Paragraphs 46 and 47 (as specified in paragraph 46) and subparagraph 48.a (as specified therein) in Section V.J (*Control of Acid Gas Flaring Incidents*);
- xii) Paragraph 57 (as specified therein) in Section V.K (*Control of Hydrocarbon Flaring Incidents*);
- xiii) All of Section V.N (*Incorporation of Consent Decree Requirements into Federally Enforceable Permits*); and
- xiv) All of Part VI (*Emission Credit Generation*).

b) Agreement Required for Changes to Surviving Requirements. In the event Hess should ever seek, after termination of this Consent Decree, to delete or modify an emission limit or standard surviving termination by virtue of Subparagraph (a), such emission limit or

standard shall not be deleted or modified unless EPA and New Jersey shall have first agreed in writing to the deletion or modification. In the event that Hess should ever seek to delete or modify any of the certain other requirements surviving termination pursuant to Subparagraph (a), such requirement shall not be deleted or modified unless EPA and NJDEP shall have first agreed in writing to the deletion or modification. The process of modifying the Refinery's permit under NJDEP's consolidated Title V construction and operating permit program will provide EPA's and New Jersey's agreement in writing to the deletion or modification as required under this subparagraph, provided that the Refinery's application for the permit modification clearly states that the permit will delete or modify an emission limit or standard surviving termination of this Consent Decree.

VI. EMISSION CREDIT GENERATION

Summary: This Part VI (Emission Credit Generation) addresses the use of emissions reductions that will result from the installation and operation of the controls required by this Consent Decree ("CD Emissions Reductions") for the purpose of emissions netting or emissions offsets.

100. **General Prohibition.** Except as otherwise provided in Paragraph 101 with respect to NO_x, Hess shall not generate or use any NO_x, SO₂, PM, VOC, or CO emissions reductions, apply for and obtain any emission reduction credits, that result from any projects conducted or controls utilized to comply with this Consent Decree as creditable contemporaneous emissions decreases or emissions offsets in any PSD, major non-attainment and/or minor New Source Review ("NSR") permit or permit proceeding.

101. **Exception to General Prohibition.** Notwithstanding the general prohibition set forth in Paragraph 100, Hess may use 15 tons per year of NO_x from the CD Emissions Reductions as credits or offsets in any PSD, major non-attainment and/or minor NSR permit or

permit proceeding occurring after the Date of Lodging with respect to the Refinery, provided that the new or modified emissions units at which credits are being used: (1) is being, or has been, constructed or modified as part of a project to comply with No. 2 Fuel Oil sulfur content regulations promulgated by the Plaintiff or Co-Plaintiff or by New York, Connecticut, or Pennsylvania; and (2) has a federally enforceable permit issued under NJDEP's consolidated Title V construction and operating permit program that reflects the following emissions requirements that are applicable to constructed or modified units for the pollutants for which credits are being used:

- a) For heaters and boilers, a limit of 0.020 lbs NO_x per million BTU or less on a 3-hour rolling average basis;
- b) For heaters and boilers, a limit of 0.10 grains of hydrogen sulfide per dry standard cubic foot of fuel gas or 20 ppmvd SO₂ each corrected to 0% O₂ both on a 3-hour rolling average;
- c) For heaters and boilers, no liquid or solid fuel firing authorization;
- d) For the FCCU, a limit of 20 ppmvd NO_x corrected to 0% O₂ or less on a 365-day rolling average basis;
- e) For the FCCU, a limit of 25 ppmvd SO₂ corrected to 0% O₂ or less on a 365-day rolling average basis;
- f) For the FCCU, a limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis; and
- g) For the SRP, NSPS Subpart J emission limits.

102. Conditions Precedent to Utilizing Exception to General Prohibition. Utilization of the exception set forth in Paragraph 101 to the general prohibition against the generation or

utilization of CD Emissions Reductions set forth in Paragraph 100 is subject to the following conditions:

- a) Under no circumstances shall Hess use CD Emissions Reductions for netting and/or offsets prior to the time that actual CD Emissions Reductions have occurred;
- b) CD Emissions Reductions may be used only at the Refinery;
- c) The CD Emissions Reductions provisions of this Consent Decree are for purposes of this Consent Decree only, and neither Hess nor any other entity may use CD Emissions Reductions for any purpose, including in any subsequent permitting or enforcement proceeding, except as provided herein; and
- d) Hess remains subject to all federal, state, and local regulations applicable to the PSD, major non-attainment and/or minor NSR permitting process.

103. Outside the Scope of the General Prohibition. Nothing in this Consent Decree is intended to prohibit Hess from seeking to:

- a) use or generate creditable contemporaneous emissions decreases or emission offsets from refinery units that are covered by this Consent Decree to the extent that those emissions decreases or emission offsets exceed the difference between the emissions limitations set forth in or established pursuant to this Consent Decree for such refinery units and the more stringent emission limitation that Hess may elect to accept for those refinery units in a permitting process;
- b) use or generate contemporaneous emissions decreases or emissions offsets for refinery units that are not subject to an emission limitation pursuant to this Consent Decree;
- c) use 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 and is permitted as a single project triggers major New Source Review requirements; or

d) use CD Emission Reductions for Hess's 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 to Hess; provided, however, that Hess shall not be allowed to trade or sell any CD Emissions Reductions.

VII. RESERVED

104. Reserved.

105. Reserved.

106. Reserved.

107. Reserved.

VIII. REPORTING AND RECORD KEEPING

108. Hess shall retain all records required to be maintained in accordance with this Consent Decree for a period of five (5) years after their creation, or until Termination, whichever is longer, unless applicable regulations require the records to be maintained longer. Hess shall submit such records to EPA or NJDEP upon request.

109. Beginning thirty (30) Days after the end of the first full semi-annual period after the Date of Entry and semi-annually thereafter on January 31 and July 31 until Termination, Hess shall submit to EPA and NJDEP a progress report. The reports will contain the following information:

a) General. Each report will contain:

i) a progress report on the implementation of the requirements of Part V (Affirmative Relief);

- ii) a summary of the emissions data that is specifically required by the reporting requirements of Part V (Affirmative Relief) for the period covered by the report;
- iii) a description of any problems anticipated with respect to meeting the requirements of Part V (Affirmative Relief);
- iv) Acid Gas or Hydrocarbon Flaring Incidents reports required pursuant to Paragraph 47:
- v) such additional matters as Hess believes should be brought to the attention of the EPA and NJDEP;
- vi) any additional items required by any other Paragraph of this Consent Decree to be submitted with a semi-annual report.

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

The summary shall include:

- i) NO_x, SO₂, CO and PM emissions in tons per year for each boiler greater than 40 mmBTU/hr maximum fired duty;
- ii) NO_x, SO₂, CO and PM emissions in tons per year as a sum for all boilers greater than 40 mmBTU/hr maximum fired duty;
- iii) NO_x, SO₂, CO and PM emissions in tons per year from the FCCU;
- iv) SO₂ emissions in tons per year from the SRP;
- v) SO₂ emissions in tons per year from all AG and HC Flaring Incidents;
- vi) NO_x, SO₂, CO and PM emissions in tons per year as a sum for all other emissions units for which emissions information is required to be included

in Hess's annual emissions statement and not otherwise identified in this Paragraph; and

- vii) 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.

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

c) Exceedances of Emission Limits. In each semi-annual report, Hess shall identify each exceedance of an emission limit required or established by this Consent Decree that occurred during the previous semi-annual period. The semi-annual report shall include the following information:

- i) for emissions units that are monitored with CEMS or PEMS, for each CEMS or PEMS:
 - (a) total period where the emissions limit was exceeded, if applicable, expressed as a percentage of operating time for each Calendar Quarter;
 - (b) where the operating unit has exceeded the emissions limit more than 1% of the total time of the Calendar Quarter, identification of each averaging period that exceeded the limit by time and date, the actual emissions of that averaging period (in the units of the limit), and any identified cause for the exceedance (including Startup, Shutdown, Malfunction or maintenance), and, if it was a Malfunction, an explanation and any corrective actions taken;
 - (c) total downtime of the CEMS or PEMS, if applicable, expressed as a percentage of operating time for the Calendar Quarter;
 - (d) where the CEMS or PEMS downtime is greater than 5% of the total time in a Calendar Quarter for a unit, identify the periods of downtime by time and date, and any identified cause of the

- downtime (including Malfunction or maintenance), and if it was a Malfunction, an explanation of any corrective action taken;
- (e) If a report filed pursuant to another applicable legal requirement contains all of the information required by this subsection (i) in the same or a similar format, the requirement of this subsection (i) may be satisfied by attaching a copy of such report.
- ii) For any exceedance of an emissions limit required or established by this Consent Decree that is monitored through stack testing:
- (a) A summary of the results of the stack test in which the exceedance occurred;
 - (b) A copy of the full stack test report in which the exceedance occurred;
 - (c) To the extent that Hess has already submitted the stack test results, Hess need not resubmit them, but may instead reference the submission in the report (*e.g.*, date, addressee, reason for submission).

110. The semi-annual report shall be certified by either the person responsible for environmental management and compliance for the Refinery, or by a person responsible for overseeing implementation of this Consent Decree for Hess as follows:

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or 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.

IX. CIVIL PENALTY

111. In satisfaction of the civil claims asserted by the United States and New Jersey in the complaint filed in this matter, within thirty (30) Days of the Date of Entry, Hess shall pay a civil penalty as follows: (1) \$425,000 to the United States; (2) \$425,000 to New Jersey.

a) Payment to the United States. Payment of monies to the United States shall be made by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing USAO File Number 2100V00882, DOJ

Case Number 90-5-2-1-08229, and the civil action case name and case number of this action in the District of New Jersey. The costs of such EFT shall be the responsibility of Hess. Payment shall be made in accordance with instructions provided to Hess by the Financial Litigation Unit of the U.S. Attorney's Office for the District of New Jersey. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Hess shall provide notice of payment, referencing USAO File Number 2100V00882, DOJ Case Number 90-5-2-1-08229, and the civil action case name and case number to the Department of Justice and to EPA, as provided in Paragraph 183 (Notice).

b) Payment to New Jersey. Payment of monies to New Jersey under this Paragraph shall be by certified or corporate check made payable to "Treasurer, State of New Jersey" and delivered to:

Director, Air Compliance and Enforcement
New Jersey Department of Environmental Protection
Mail Code 401-40B
PO Box 420
401 East State Street
Trenton, NJ 08625-0420

112. The civil penalty set forth herein, as well as any stipulated penalty incurred pursuant to Part X, is a penalty within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), and, therefore, Hess shall not treat such penalty payments as tax deductible for purposes of federal or state law.

113. Upon the Date of Entry, the Consent Decree shall 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 New Jersey shall be deemed judgment

creditors for purposes of collecting any unpaid amounts of the penalty and interest pursuant to this Part, or any stipulated penalty owed pursuant to Part X.

X. STIPULATED PENALTIES

114. Generally.

a) Hess shall pay stipulated penalties to the United States and to New Jersey for each failure by Hess to comply with the terms of this Consent Decree as provided herein. Stipulated penalties shall be calculated in the amounts specified in this Part.

b) 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 shall rest exclusively within the discretion of the United States or New Jersey (as applicable).

c) Where a single event triggers more than one stipulated penalties provision in this Consent Decree, only the provision providing for the higher stipulated penalty shall apply.

115. Requirements for NOx Emission Reductions From the FCCU.

a) For failure to meet an FCCU NOx limit set forth in Paragraphs 11, 12, 13.B, and 16: \$750 for each calendar day on which the short-term rolling average exceeds the applicable limit; and \$2,500 for each calendar day on which the specified 365-day rolling average exceeds the applicable limit.

b) For failure to timely commence, complete or substantially comply with the requirements of any demonstrations or studies required by Paragraph 13, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000

Beyond 60th day after deadline \$2,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

c) For failure to prepare and/or submit written deliverables required by Paragraphs 13 and 15 of this Consent Decree, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$200
31 st through 60 th day after deadline	\$500
Beyond 60 th day after deadline	\$1,000

d) For failure to install, certify, calibrate, maintain, and/or operate a NOx CEMS as required by Paragraph 18 per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

116. Requirements for SO₂ Emission Control from the FCCU and SRP.

a) For each failure to meet the FCCU and SRP SO₂ limits set forth in Paragraph 19 per day: \$750 for each Day on which the specified 7-day rolling average exceeds the applicable limit; \$2,500 for each Day on which the specified 365-day rolling average exceeds the applicable limit.

b) For failure to install, certify, calibrate, maintain, and/or operate a SO₂ CEMS as required by Paragraphs 20 and 21, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000 or an amount equal to 1.2times the economic benefit of non compliance, whichever is greater.

117. Requirements for PM Emissions Reductions from the FCCU.

a) For each failure to meet the applicable FCCU PM limits set forth in Paragraph 22:
\$1,500 for each Day during which the Refinery exceeds the emission limit.

b) For failure to conduct stack tests to measure PM emissions from the FCCU, as required by Paragraph 23, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000, or, an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

c) For failure to comply with the continuous opacity monitoring requirements required by Paragraph 25.

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

118. Requirements for CO Emissions Reductions from the FCCU.

a) For each failure to meet the applicable FCCU CO limit set forth in Paragraph 26, or as later accepted by Hess pursuant to Paragraph 27: \$750 for each Day on which the specified 1-hour block average exceeds the applicable limit; and \$2,500 for each Day on which the specified 365-day rolling average exceeds the applicable limit.

b) For failure to install, certify, calibrate, maintain, and/or operate a CO CEMS as required by Paragraph 29, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000, or, an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

119. For failure to comply with NSPS Subparts A and J limits at the FCCU Regenerator as required by Paragraph 30, per pollutant per Day:

<u>Period of Non-Compliance</u>	<u>Penalty Per day</u>
1 st through 30 th day	\$1,000
31 st through 60 th day	\$2,000
Beyond 60 th day	\$3,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

120. Requirements Applicable to the Boilers.

a) For failure to meet NOx emission limits set forth in Paragraph 31:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day	\$500

31 st through 60 th day	\$1,000
Beyond 60 th day	\$2,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

b) For failure to install, certify, calibrate, maintain, and/or operate a NOx CEMS as

required by Paragraph 32, per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,000
Beyond 60 th day after deadline	\$2,000, or, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

c) For failure to comply with NSPS Subparts A and J at the boilers, as required by

Paragraph 33, per Day:

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

d) For failure to comply with the prohibition pertaining to burning Fuel Oil as

required by Paragraph 35, per Day:

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

121. Requirements for Sulfur Recovery Plant.

- a) For failure to route all sulfur pit emissions in accordance with the requirements of

Paragraph 37 per Day:

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

- b) For failure to develop and comply with the Preventative Maintenance and

Operation Plan as specified in Paragraph 39, per Day:

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

- c) For failure to provide any written deliverable required by Section V.H., per deliverable, per Day (except as specified in this Paragraph, this Paragraph shall apply in lieu of any other potentially applicable stipulated penalties for late deliverables required by Section V.H.):

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$200
31 st through 60 th day after deadline	\$500
Beyond 60 th day after deadline	\$1,000

122. Requirements for NSPS Applicability to Flaring Devices.

a) For failure to comply with NSPS Subparts A and J, including emission limits, or certification requirements pursuant to Paragraph 42 for Unit 9 as set forth in Section V.I.:

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

123. For failure to install or certify a CEMS or submit and comply with an AMP, at Unit 9, as set forth in Section V.I., per Day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$500
31 st through 60 th day after deadline	\$1,500
Beyond 60 th day after deadline	\$2,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

124. Requirements for Control of Acid Gas and Hydrocarbon Flaring Incidents.

a) For AG Flaring Incidents or HC Flaring Incidents for which Hess is liable under Section V.J. Stipulated penalties for HC Flaring Incidents shall be equal to seventy-five (75%) of the penalty for AG Flaring Incidents:

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	\$1,000 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, \$32,500 in any one Day
Greater than 15 tons	\$1,800 per ton, up to, but not exceeding, \$32,500 in any one Day	\$2,300 per ton, up to, but not exceeding, \$32,500 in any one Day	\$32,500 per Day for each Day over which the Acid Gas Flaring Incident lasts

- i) For purposes of calculating stipulated penalties pursuant to this Subparagraph, only one cell within the matrix shall apply. Thus, for example, for an AG Flaring Incident in which the AG 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)].
- ii) For purposes of determining which column in the table set forth in this Subparagraph applies under circumstances in which flaring occurs intermittently during an AG or HC Flaring Incident, the flaring shall be deemed to commence at the time that the flaring that triggers the initiation of an AG or HC Flaring Incident commences, and shall be deemed to

terminate at the time of the termination of the last episode of flaring within the AG or HC Flaring Incident. Thus, for example, for AG Flaring within an Acid Gas Flaring Incident that (1) starts at 1:00 p.m. on Day 1 and ends at 1:30 p.m. on Day 1; (2) recommences at 4:00 p.m. on Day 1 and ends at 4:30 p.m. on Day 1; (3) recommences at 1:00 a.m. on Day 2 and ends at 1:30 a.m. on Day 2; and (4) no further AG Flaring occurs within the AG Flaring Incident, the AG Flaring within the AG Flaring Incident shall be deemed to last 12.5 hours -- not 1.5 hours -- and the column for AG Flaring of "greater than 3 hours but less than or equal to 24 hours" shall apply.

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

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$750
Days 31-60	\$1,500
Over 60 days	\$3,000

c) For those corrective action(s) with respect to Acid Gas Flaring which Hess: (i) agrees to undertake following receipt of an objection by EPA pursuant to Paragraph 48; or (ii) is required to undertake following dispute resolution, then, from the date of EPA's receipt of Hess's report under Paragraph 56 until the date that either: (i) a final agreement is reached between EPA and Hess regarding the corrective action; or (ii) a court order regarding the corrective action is entered, Hess shall be liable for stipulated penalties as follows:

i) <u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-120	\$50
Days 121-180	\$100

Days 181 - 365	\$300
Over 365 Days	\$3,000

Or

ii) 1.2 times the economic benefit resulting from Hess's failure to implement the corrective action(s).

d) For failure to complete any corrective action with respect to Acid Gas Flaring under Paragraph 48 in accordance with the schedule for such corrective action agreed to by Hess or imposed on Hess pursuant to the dispute resolution provisions of Part XIV (with any such extensions thereto as to which EPA and Hess may agree in writing):

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$1,000
Days 31-60	\$2,000
Over 60	\$5,000

125. Requirements for Control of Hydrocarbon Flaring Incidents.

a) For each failure to perform a Root Cause analysis or submit a written report, or for submitting a written report that does not substantially conform to the requirements of HC Flaring Incident report, or to perform corrective action(s) for an HC Flaring Incident, as required by Section V.K:

<u>Period of Delay/Non-Compliance</u>	<u>Penalty per day per Incident</u>
1 st through 30 th day	\$500
31 st through 60 th day	\$1,500
Beyond 60 th day	\$3,000

126. Requirements for Benzene Waste NESHAP Program Enhancements.

For each violation in which a frequency is specified in Section V.L, the amounts identified below shall apply on the first day of violation, and shall be calculated for each

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incremental period of violation (or portion thereof).

a) For failure to complete a BWON Compliance Review and Verification Report as required by Paragraph 63: \$5,000 per month.

b) For failure to submit a BWON corrective measures plan as required by Paragraph 63(b), or for failure to implement the plan as required by Paragraph 64:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$1,250
31 st through 60 th day after deadline	\$3,000
Beyond 60 th day	\$5,000, or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

c) For failure to comply with the requirements set forth in Paragraph 76(d), related to the use, monitoring, and replacement of carbon canisters: \$1,000 per incident of non-compliance, per Day.

d) For failure to implement the training requirements of Paragraph 67: \$10,000 per quarter.

e) For failure to perform laboratory audits as required by Paragraph 65: \$5,000 per month, per audit.

f) For failure to submit or maintain any plans or other deliverables required by Paragraphs 68 and 69: \$2,000 per month.

g) For failure to conduct sampling in accordance with the sampling plans required by Paragraph 69: \$2,500 per week or \$15,000 per quarter, per stream, whichever is greater, but not to exceed a total of \$75,000 per quarter for all streams.

h) For failure to submit a BWON Corrective Measures Plan if required by Paragraph

74, or retain the third-party contractor if required by Paragraph 75: \$5,000 per month.

- i) For failure to conduct monthly visual inspections of all Subpart FF water traps as required by Subparagraph 76(a): \$500 per drain not inspected;
- j) For failure to monitor Subpart FF conservation vents as required by Subparagraph 76(b): \$500 per vent not monitored;
- k) For failure to conduct monitoring of oil-water separators as required by Subparagraph 76(c): \$1,000 per month, per unit not monitored;
- l) If, after the initial audit, Hess fails to submit any of the written deliverables required by Subsection V.L (except for those deliverables for which stipulated penalties are specified above: \$1,000 per week, per deliverable not submitted.

127. Requirements for Leak Detection and Repair Program Enhancements.

For each violation in which a frequency is specified in Section V.M, the amounts identified below shall apply on the first day of violation, and shall be calculated for each incremental period of violation (or portion thereof).

- a) For failure to develop a written LDAR Program as required by Paragraph 78: \$3,500 per week.
- b) For failure to implement the training program specified in Paragraph 80: \$10,000 per month.
- c) For failure to conduct any of the LDAR Audits described in Paragraph 81: \$5,000 per month, per audit.
- d) For failure to implement any actions necessary to correct non-compliance as required in Paragraph 82:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$1,250
31 st through 60 th day after deadline	\$3,000
Beyond 60 th day	\$5,000, or an amount equal to 1.2 times times economic benefit of non-compliance, whichever is greater.

e) For failure to correctly perform EPA Test Method 21, as indicated by the leak percentage ratio determined through comparative monitoring and calculated as described in Paragraph 82:

Ratio process unit valve leak percentage to average valve leak percentage reported for process unit	Stipulated Penalty for 4-monitoring periods, per process unit
3.0	\$3,333
4.0	\$6,666
5.0	\$12,000
6.0 or greater	\$20,000

f) For failure to perform monitoring utilizing the lower internal leak rate definitions as specified in Paragraph 83: \$100 per component, but not greater than \$10,000 per month, per process unit.

g) For failure to perform LDAR monitoring at the frequency required by Paragraph 86: \$100 per component, but not greater than \$10,000 per month for unit.

h) For failure to make first repair attempts within 5 days and/or take other actions required by Paragraph 84(b): \$100 per component but not greater than \$10,000 per month (except that Subparagraph i shall apply in lieu of this Subparagraph where both Subparagraphs are applicable).

i) For failure to implement the "initial attempt" repair program set forth in Paragraph 85: \$100 per component, but not to exceed \$10,000 per month for the Refinery.

j) For failure to implement the QA/QC procedures described in Paragraph 88: \$1,000 per incident, but not greater than \$10,000 per month for the Refinery.

k) For failure to use dataloggers or maintain electronic data as required by Paragraph 87: \$5,000 per month.

l) For failure to conduct and record the calibrations and the calibration drift assessments or remonitor valves and pumps based on calibration drift assessments in Paragraph 91: \$100 per missed event.

m) For failure to comply with the requirements for delay of repair set forth at Paragraph 92: \$5,000 per valve or pump, per incident of non-compliance.

n) For failure to submit a written submission to EPA as required by Section V.M (except where a more specific stipulated penalty provision applies to a submission): \$500 per week per submission.

o) If it is determined through a federal, state, or local investigation that Hess has failed to include any valves or pumps in its LDAR program, Hess shall pay \$350 per component that it failed to include.

p) For failure to comply with the requirements for chronic leakers set forth at Paragraph 93: \$1,500 per valve.

128. Requirements to Incorporate Consent Decree Requirements into Federally-Enforceable Permits.

For each failure to submit an application as required by Paragraphs 95-98:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
Days 1-30 after deadline	\$800
Days 31-60 after deadline	\$1,500

Over 60 Days after deadline \$3,000

129. Reserved.

130. Requirements for Reporting and Recordkeeping.

For failure to submit reports as required by Part VIII, per report, per Day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$300
1 st through 60 th day after deadline	\$1,000
Beyond 60 th day	\$2,000

131. Requirements for Payment of Civil Penalties.

For Hess's failure to pay the civil penalties as specified in Part IX, Hess shall be liable for \$15,000 per Day plus interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a).

132. Requirement to Pay Stipulated Penalties.

For failure to pay stipulated penalties as required by Paragraph 114, Hess shall be liable for \$2,500 per Day, and interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a).

133. Payment of Stipulated Penalties. Hess shall pay stipulated penalties upon written demand by the United States or New Jersey, no later than sixty (60) Days after it receives such demand. Demand from one agency shall be deemed a demand from all applicable agencies, but the agencies shall consult with each other prior to making a demand. Stipulated penalties owed by Hess shall be paid 50% to the United States and 50% to New Jersey. Stipulated penalties shall be paid to the United States and New Jersey in the manner set forth in Part IX (Civil Penalty). 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 NJDEP is demanding for each violation the calculation method underlying the demand, and the grounds upon which the demand is based. After consultation with each other, the United States and New Jersey may, in their unreviewable discretion, waive payment of any portion of stipulated penalties that may accrue under this Consent Decree.

134. Stipulated Penalties Dispute. Should Hess dispute the United States' and/or New Jersey's demand for all or part of a stipulated penalty, it may avoid the imposition of a stipulated penalty for its failure to pay a stipulated penalty under Paragraph 114 by placing the disputed amount demanded in a commercial escrow account pending resolution of the matter and by invoking the dispute resolution provisions of Part XIV within the time provided in Paragraph 133 for payment of stipulated penalties. If the dispute is thereafter resolved in Hess's favor, the escrowed amount plus accrued interest shall be returned to it; otherwise, EPA and NJDEP shall be entitled to the amount that was determined to be due, plus the interest that has accrued in the escrow account on such amount. The United States and New Jersey reserve the right to pursue any other non-monetary remedies to which they are legally entitled, including but not limited to, injunctive relief for violations of this Consent Decree.

135. 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 Hess for the same violations nor will the United States demand stipulated penalties from Hess 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, regulations, or a permit, NJDEP will not seek civil penalties where it already has demanded and

secured stipulated penalties from Hess for the same violations, nor will NJDEP demand stipulated penalties from Hess for a Consent Decree violation if NJDEP has commenced litigation under the Clean Air Act, State law, or state regulation for the same violations.

XI. INTEREST

136. After the date on which a payment is due under this Consent Decree, Hess shall be liable for interest on the unpaid balance of the civil penalty specified in Part IX, and for interest on any unpaid balance of stipulated penalties to be paid in accordance with Part X. All such interest shall 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. Interest shall be computed daily and compounded annually. Interest shall be calculated from the date payment is due under the Consent Decree through the date of actual payment. For purposes of this Part (Interest), 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 134. Monies timely paid into escrow shall not be considered to be an unpaid balance under this Part.

XII. RIGHT OF ENTRY

137. Any authorized representative of EPA or NJDEP, including independent contractors, upon presentation of credentials, shall have a right of entry upon the premises of the facilities of the Refinery 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 and copying all records maintained by Hess pursuant to the requirements of this Consent Decree or in the ordinary course of Hess's business that are deemed necessary by EPA

or NJDEP to verify compliance with this Consent Decree. Nothing in this Consent Decree shall limit the authority of EPA or NJDEP to conduct tests, inspections, or other activities under any statutory or regulatory provision.

XIII. FORCE MAJEURE

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

139. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, and which Hess believes qualifies as Force Majeure event, Hess shall notify the United States and New Jersey in writing as soon as practicable, but in any event within forty-five (45) business days of when Hess first knew of the event or should have known of the event by the exercise of due diligence. In this notice Hess shall 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 Hess to prevent or minimize the delay and the schedule by which those measures will be implemented. Hess shall adopt all reasonable measures to avoid or minimize such delays.

140. Failure by Hess to substantially comply with the notice requirements of Paragraph

139, shall render Hess's claim of Force Majeure voidable by the United States, after an opportunity for consultations with New Jersey, as to the specific event for which Hess has failed to comply with such notice requirement. If so voided, it shall be of no effect as to the particular event involved.

141. The United States, after an opportunity for consultation with New Jersey, shall notify Hess in writing regarding Hess's claim of a delay or impediment to performance within forty-five (45) business days of receipt of the Force Majeure notice provided under Paragraph 139.

142. If the United States, after an opportunity for consultation with New Jersey, agrees that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Hess including any entity controlled or contracted by it, and that it could not have prevented the delay by the exercise of due diligence, the parties shall stipulate 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, or such other period as may be appropriate in light of the circumstances. Such stipulation may be filed as a modification to this Consent Decree by agreement of the parties pursuant to the modification procedures established in Paragraph 186. Hess shall not be liable for stipulated penalties for the period of any such delay or impediment to performance.

143. If the United States and New Jersey do not accept Hess's claim of a delay or impediment to performance or of Force Majeure pursuant to this Consent Decree, then Hess must submit the matter to this Court pursuant to the dispute resolution provisions of Part XIV for resolution to avoid payment of stipulated penalties. In the event that the United States and New Jersey do not agree, the position of the United States on the Force Majeure claim shall become

the final Plaintiffs' position. Once Hess has submitted this matter to this Court, the United States and New Jersey shall have twenty (20) business days to file a response 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 Hess, including any entity controlled or contracted by it, and that it could not have prevented the delay by the exercise of due diligence, Hess shall be excused as to that event(s) and delay (including stipulated penalties) for all requirements affected by the delay for a period of time equivalent to the delay caused by such circumstances or such other period as may be determined by the Court.

144. Hess shall bear the burden of proving that any delay of any obligations of this Consent Decree was caused by or will be caused by circumstances beyond its control, including any entity controlled or contracted by it, and that it could not have prevented the delay by the exercise of due diligence. Hess shall 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 does not necessarily, result in an extension of a subsequent compliance date or dates.

145. As part of the resolution of any matter submitted to this Court under this Part, 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 any delay or impediment to performance agreed to by the United States and New Jersey or approved by this Court. Hess shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule, except to the extent that such schedule is further modified, extended or otherwise affected by a subsequent Force Majeure event under this Part XIII.

XIV. RETENTION OF JURISDICTION/DISPUTE RESOLUTION

146. This Court shall 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 - including, but not limited to, determinations under Part V (Affirmative Relief) - between the Parties that may arise under the provisions of the Consent Decree, until the Consent Decree terminates in accordance with Part XVII (Termination).

147. The dispute resolution procedure set forth in this Part (Retention of Jurisdiction/Dispute Resolution) shall 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.

148. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Hess sends the United States and New Jersey a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 60 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States or New Jersey, as applicable, shall be considered binding unless, within 45 Days after the conclusion of the informal negotiation period, Hess invokes formal dispute resolution procedures as set forth below.

149. Formal Dispute Resolution. Hess shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and New Jersey a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or

opinion supporting Hess's position and any supporting documentation relied upon by Hess.

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

151. Hess may seek judicial review of the dispute by filing with the Court and serving on the United States and New Jersey, in accordance with Paragraph 183 (Notice), a motion requesting judicial resolution of the dispute. The motion must be filed within 30 Days of receipt of the United States' or New Jersey's, as applicable, Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Hess's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

152. The United States and New Jersey, as applicable, shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Hess may file a reply memorandum, to the extent permitted by the Local Rules.

153. In the event that the United States and New Jersey make differing determinations or take differing actions that affect Hess's rights or obligations under this Consent Decree, the final decisions of the United States shall take precedence.

154. 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 (Retention of Jurisdiction/Dispute Resolution) may be shortened upon motion of one of the Parties to the dispute.

155. The Parties do not intend that the invocation of this Part (Retention of Jurisdiction/Dispute Resolution) by a Party shall cause the Court to draw any inferences nor establish any presumptions adverse to either Party.

156. As part of the resolution of any dispute under this Part, 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. Hess shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

XV. EFFECT OF SETTLEMENT

157. Definitions. For purposes of this Part (Effect of Settlement), 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 and 51.166; the portions of the applicable implementation plan and EPA approved state rules adopted as required by 40 C.F.R. Part 51 Subpart I; "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. Part 51 Subpart I, in particular §§ 51.165 (a) and (b), 40 C.F.R. Part 51, Appendix S, and 40 C.F.R. § 52.24, and any Title V regulations that implement, adopt, incorporate or substitute for the specific regulatory requirements identified above; any applicable, federally-enforceable state or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above; any Title V permit

provisions that implement, adopt or incorporate the specific 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; and any applicable, federally enforceable state or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above.

c) "Benzene Waste NESHAP Requirements" shall mean the requirements imposed by the National Emission Standard for Benzene Waste Operations, 40 C.F.R. Part 61, Subpart FF, and any applicable state or local regulations that implement, adopt or incorporate the Benzene Waste NESHAP.

d) "LDAR Requirements" shall mean the requirements relating to equipment in light liquid service and gas and/or vapor service set forth at 40 C.F.R. Part 60, Subpart GGG; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H and CC; and any applicable state or local regulations or State Implementation Plan requirements that implement, adopt or incorporate those federal regulations or set similar standards.

e) "Post-Lodging Compliance Dates" shall mean any dates in this Part (Effect of Settlement) after the Date of Lodging. Post-Lodging Compliance Dates include dates certain (e.g., "December 31, 2008"), 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.

158. Liability Resolution Regarding the Applicable NSR/PSD Requirements. With respect to emissions of the following pollutants from the following units at the Refinery, entry of this Consent Decree shall resolve all civil liability of Hess to the United States and New Jersey (1) for violations of the Applicable NSR/PSD Requirements resulting from the construction or modification of the following units that occurred prior to the Date of Lodging, and that commenced and ceased prior to the Date of Lodging; and (2) for any violations of the Applicable NSR/PSD Requirements resulting from the pre-Lodging construction or modification of the following units, that commenced prior to the Date of Lodging and continued up to the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
FCCU	NO _x	Date Compliance is required pursuant to Paragraph 16
	SO ₂	Date of Entry
	PM	Date of Entry
Boilers	SO ₂	Date of Entry
	NO _x	18 months from Date of Entry

159. Conditional Resolution of Liability for CO Emissions Under the Applicable NSR/PSD Requirements. With respect to emissions of CO from the FCCU, if and when Hess accepts an emission limit of 100 ppmvd of CO at 0% O₂ on a 365-day rolling average basis and demonstrates compliance using CEMS at the Refinery FCCU, then all civil liability to the United States and New Jersey shall be resolved for violations of the Applicable NSR/PSD Requirements relating to CO emissions at the Refinery FCCU resulting from pre-Lodging construction or

modification of the FCCU.

160. Reservation of Rights Regarding Applicable NSR/PSD Requirements:

Notwithstanding the resolution of liability in Paragraphs 158 - 159, the releases of liability by the United States and New Jersey for violations of the Applicable NSR/PSD Requirements during the period between the Date of Lodging and the Post-Lodging Compliance Dates shall be rendered void if Hess materially fails to comply with the corresponding obligations and requirements of Sections V.A. to V.D. (relating to the FCCU) or Sections V.F. and V.G. (relating to heaters and boilers); provided, however, that the releases in Paragraphs 158 - 159 shall not be rendered void if Hess timely remedies such material failure and pays any stipulated penalties due as a result of such material failure.

161. Exclusions from Release Coverage Regarding Applicable NSR/PSD

Requirements: Notwithstanding the resolution of liability in Paragraphs 158 - 159, nothing in this Consent Decree precludes the United States and/or New Jersey from seeking injunctive relief, penalties, or other appropriate relief for violations of the Applicable NSR/PSD Requirements resulting from: (1) construction or modification that commenced prior to the Date of Lodging, if the resulting violations relate to pollutants or units not covered by the Consent Decree; or (2) any construction or modification that commences after the Date of Lodging.

162. Evaluation of Applicable NSR/PSD 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 Refinery, are beyond the scope of the release in Paragraphs 158 - 159, and Hess must evaluate any such increases in accordance with the Applicable NSR/PSD Requirements.

163. Resolution of Liability Regarding Applicable NSPS Subparts A and J

Requirements. With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of Hess to the United States and New Jersey for alleged violations of the Applicable NSPS Subparts A and J Requirements from the date that any claim of the United States and New Jersey resulting from pre-Date of Lodging construction or modification (including reconstruction) accrued up to the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
FCCU	SO ₂	Date of Entry
	PM	Date of Entry
	CO	Date of Entry
Boilers	SO ₂	Date of Entry
SRP	SO ₂	Date of Entry
Flaring Device	SO ₂	18 months from Date of Entry

164. Reservation of Rights Regarding Applicable NSPS Subparts A and J

Requirements: Release for Violations Continuing After the Date of Lodging Can Be Rendered Void. Notwithstanding the resolution of liability in Paragraph 163, the releases of liability by the United States and New Jersey to Hess 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 for a particular emission unit if Hess materially fails to comply with the obligations and requirements of Sections V.B., V.G., V.H., and V.I., for that unit; provided, however, that the release in Paragraph 163 shall not be rendered void if Hess remedies such material failure and pays any stipulated penalties due as a result of such material failure.

165. 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, state, or local authority or any applicable permit.

166. Resolution of Liability Regarding Benzene Waste NESHAP Requirements. Entry of this Consent Decree shall resolve all civil liability of Hess to the United States and New Jersey for violations of the statutory and regulatory requirements set forth below in Subparagraphs (a) through (c) that (1) commenced and ceased prior to the Date of Entry; or (2) are based on events identified in the BWON Compliance Review and Verification Report required under Paragraph 63 and are corrected pursuant to the requirements of Paragraph 64, provided that the events giving rise to such violations are identified and addressed by Hess as required under Paragraphs 63-64 for Benzene Waste NESHAP requirements:

a) 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);

b) Any applicable federally-enforceable state or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified in Subparagraph (a);

c) Any applicable state or local regulations enforceable by NJDEP that implement, adopt, or incorporate the specific federal regulatory requirements identified in Subparagraph (a).

167. Resolution of Liability Regarding LDAR Requirements. Entry of this Consent Decree will resolve all civil liability of Hess to the United States and New Jersey for violations of the statutory and regulatory requirements set forth below in Subparagraphs (a) through (c) that (1) commenced and ceased prior to the Date of Entry; and (2) commenced prior to the Date of Entry and continued past the Date of Entry, provided that the events giving rise to such post-Entry violations are identified by Hess in its Initial Third-Party Audit Report(s) submitted

pursuant to Paragraph 81 and corrected by Hess as required under Paragraph 82:

a) LDAR Requirements. For all equipment in light liquid service and gas and/or vapor service, the LDAR requirements of New Jersey under the SIP adopted pursuant to the Clean Air Act or promulgated by EPA pursuant to Section 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) Any applicable, federally-enforceable state or local regulations or permit provisions that implement, adopt, or incorporate the specific regulatory requirements identified in Subparagraph (a);

c) Any applicable state or local regulations or permit provisions enforceable by New Jersey that implement, adopt, or incorporate the specific regulatory requirements identified in Subparagraph (a).

168. Reservation of Rights Regarding Benzene NESHAP and LDAR Requirements. Notwithstanding the resolution of liability in Paragraphs 166 and 167, nothing in this Consent Decree precludes the United States and/or New Jersey from seeking injunctive and/or other equitable relief or civil penalties for violations of Benzene Waste NESHAP and/or LDAR requirements that (1) commenced prior to the Date of Entry and continued after the Date of Entry if Hess fails to identify and address such violations as required by Paragraphs 63-64 and Paragraphs 81(a) and 82 of this Consent Decree; or (B) commenced after the Date of Entry.

169. [Reserved]

170. Audit Policy. Nothing in this Consent Decree is intended to limit or disqualify Hess, on the grounds that information was not discovered and supplied voluntarily, from seeking to apply EPA's Audit Policy or any state or local audit policy to any violations or non-compliance

that it discovers during the course of any investigation, audit, or enhanced monitoring that it is required to undertake pursuant to this Consent Decree.

171. Claim/Issue Preclusion. In any subsequent administrative or judicial proceeding initiated by the United States or New Jersey for injunctive relief, penalties, or other appropriate relief relating to Hess for violations of the NSR/PSD, NSPS, NESHAP, and/or LDAR requirements, not identified in this Part and/or the Complaint:

a) Hess 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 it assert, or maintain, any other defenses based upon any contention that the claims raised by the United States or New Jersey in the subsequent proceeding were or should have been brought in the instant case. Nothing in this Paragraph is intended to affect the ability of Hess to assert that any such claims are deemed resolved by virtue of this Part.

b) Except as set forth in subparagraph (a), above, the United States and New Jersey 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 Hess of any interpretation or guidance issued by EPA related to the matters addressed in this Consent Decree.

172. Imminent and Substantial Endangerment. Nothing in this Consent Decree shall be construed to limit the authority of the United States and New Jersey to undertake any action against any person, including Hess to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment or to limit the authority of New Jersey to take action under its laws, including its common law, that may be necessary to protect the public health, safety, welfare and the environment.

173. Notwithstanding any other provision of this Consent Decree, the Parties reserve all rights with respect to liability for assessment and damages for injury to, destruction of or loss of natural resources under otherwise applicable federal, state or other law and regulation.

XVI. GENERAL PROVISIONS

174. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Hess of its obligation to comply with all applicable federal, state, and local laws and regulations, including but not limited to more stringent standards. In addition, nothing in this Consent Decree shall prohibit or prevent the United States or New Jersey from developing, implementing, and enforcing more stringent standards subsequent to the Date of Lodging through rulemaking, the permit process or as otherwise authorized or required under federal, state, or local laws and regulations. Subject to Part XV (Effect of Settlement) and Paragraph 176, nothing contained in this Consent Decree shall be construed to prevent or limit the rights of the United States or New Jersey to seek or obtain other remedies or sanctions available under other federal, state, or local statutes or regulations, by virtue of Hess's violation of the Consent Decree or of the statutes and regulations upon which the Consent Decree is based, or for its violations of any applicable provision of law. This shall include the right of the United States or New Jersey to invoke the authority of the Court to order Hess's compliance with this Consent Decree in a subsequent contempt action. The requirements of this Consent Decree do not exempt Hess from complying with any and all new or modified federal, state, and/or local statutory or regulatory requirements that may require technology, equipment, monitoring, or other upgrades after the Date of Lodging.

175. Startup, Shutdown, Malfunction. Notwithstanding the provisions of this Consent Decree regarding Startup, Shutdown, and Malfunction, this Consent Decree does not exempt

Hess from the requirements of New Jersey laws and regulations or from the requirements of any permits or plan approvals issued to Hess, as these laws, regulations, permits, and/or plan approvals may apply to Startups, Shutdowns, and Malfunctions at the Refinery.

176. Post-Permit Violations. Nothing in this Consent Decree shall be construed to prevent or limit the right of the United States or New Jersey to seek injunctive and monetary relief for violations of limits that have been incorporated into permits pursuant to this Consent Decree; provided, however, that with respect to monetary relief, the United States and New Jersey 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).

177. Failure of Compliance. The United States and New Jersey do not, by their consent to the entry of Consent Decree, warrant or aver in any manner that Hess's complete compliance with the Consent Decree will result in compliance with the provisions of the CAA or the New Jersey Air Act and regulations. Notwithstanding the review or approval by EPA or NJDEP of any plans, reports, policies or procedures formulated pursuant to the Consent Decree, Hess shall remain solely responsible for compliance with the terms of the Consent Decree, except as provided in Part XIII (Force Majeure), all applicable permits, and all applicable federal, state, and local laws and regulations.

178. Service of Process. Hess hereby agrees 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 at Paragraph 183 (Notice) are authorized to accept service of process with

respect to all matters arising under or relating to the Consent Decree.

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

180. Costs. Each Party to this action shall bear its own costs and attorneys' fees.

181. Public Documents. All information and documents submitted to EPA and NJDEP pursuant to this Consent Decree shall be subject to public inspection in accordance with the respective statutes and regulations that are applicable to EPA and NJDEP, 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.

182. 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 New Jersey reserve the right to withdraw or withhold their consent to the Consent Decree if public comments disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate.

183. Notice. Unless otherwise provided herein, notifications to or communications between the Parties shall be deemed submitted on the date they are postmarked and sent by U.S.

Mail, postage pre-paid, except for notices under Section XIII (Force Majeure) and Part XIV (Retention Jurisdiction/Dispute Resolution) which shall be sent by overnight mail or by certified or registered mail, return receipt requested. Each report, study, notification or other communication shall be submitted as specified in this Consent Decree, with copies to EPA Region 2 and NJDEP. 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, NJDEP, or Hess shall 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. 90-5-2-1-08229

Director, Air Enforcement Division
Office of Regulatory Enforcement
U.S. Environmental Protection Agency
Mail Code 22452-A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460-0001

Director, Division of Enforcement and Compliance Assistance
U.S. EPA Region 2
290 Broadway, 21st Floor
New York, NY 10007-1866

with a hard copy to
Director, Air Enforcement Division
Office of Regulatory Enforcement
c/o Matrix New World Engineering, Inc.
120 Eagle Rock Avenue, Suite 207
East Hanover, NJ 07936

and an electronic copy to
neichlin@matrixengineering.com
fentress.robert@epa.gov
foley.patrick@epa.gov
quintin.marie@epa.gov

As to NJDEP:

Director, Air Compliance and Enforcement
New Jersey Department of Environmental Protection
Mail Code 401-40B
PO Box 420
401 East State Street
Trenton, NJ 08625-0420

Manager, Central Air Compliance and Enforcement Office
New Jersey Department of Environmental Protection
22 S. Clinton Avenue
P.O. Box 407
Trenton, NJ 08625-0407

As to New Jersey :

Deputy Attorney General, Section Chief
Environmental Enforcement and Homeland Security
Division of Law
PO Box 093
25 Market Street
Trenton, NJ 08625-0093

As to Hess:

Darius Sweet
Senior Vice President
Refining, Terminals and Supply
One Hess Plaza
Woodbridge, New Jersey 07095

General Counsel
Hess Corporation
1185 Avenue of Americas
New York, NY 10036

And electronic copies to: phaid@hess.com; hgoldman@hess.com; ccolman@hess.com;
and jdomike@kilpatricktownsend.com.

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.

184. Approvals. All EPA approvals or comments required under this Consent Decree shall be in writing. NJDEP approvals or comments shall be sent in writing from the offices identified in Paragraph 183.

185. 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.

186. Modification. The 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 shall not be used in any action involving the interpretation or enforcement of the Consent Decree. Non-material modifications to this Consent Decree will be in writing and effective upon signature by the Parties. 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 emission limitations following the installation of control equipment, provided such changes are agreed upon in writing between the Parties. Material modifications to this Consent Decree will be in writing, signed by the Parties, and will be effective upon approval of the Court.

XVII. TERMINATION

187. This Consent Decree shall be subject to termination upon motion by the United States or Hess, under the conditions identified in this Paragraph. Prior to seeking termination, Hess must have completed and satisfied all of the following requirements:

- a) installation of control technology systems as specified in this Consent Decree;
- b) compliance with all provisions contained in this Consent Decree, which

compliance may be established for specific parts of the Consent Decree in accordance with Paragraph 188, below;

c) payment of all penalties and other monetary obligations due under the terms of the Consent Decree; no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States or New Jersey;

d) Reserved;

e) application for and receipt of permits incorporating the surviving emission limits and standards established under Part V; and

f) operation for at least one (1) 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.

188. Certification of Completion.

a) Prior to moving for termination, Hess may certify completion of one or more of the following sections of the Consent Decree, provided that all of the related requirements for the Refinery have been satisfied:

i) Section V.A - Fluid Catalytic Cracking Unit (including operation of the unit for one (1) year after completion in compliance with the emission limit set pursuant to the Consent Decree);

ii) Sections V.B through V.E - Fluid Catalytic Cracking Unit (including operation of the unit for one (1) year after completion in compliance with the emission limits accepted pursuant to the Consent Decree);

iii) Sections V.F and V.G - Boilers (including operation of the relevant units for one (1) year after completion in compliance with the emission limit set

pursuant to the Consent Decree);

- iv) Sections V.H through V.K – SRP and flares; and
- v) Sections V.L and V.M – Benzene Waste NESHAP Program Enhancements and Leak Detection and Repair Program Enhancements.

b) Within ninety (90) Days after Hess concludes that any of the parts of the Consent Decree identified in Subparagraph (a) have been completed, Hess may submit a written report to EPA and NJDEP describing the activities undertaken and certifying that the applicable Sections have been completed in full satisfaction of the requirements of this Consent Decree, and that it is in substantial and material compliance with all of the other requirements of the Consent Decree.

The report shall contain the following statement, signed by a responsible corporate official:

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or 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.

c) Upon receipt of Hess's certification, EPA, after reasonable opportunity for review and comment by NJDEP, shall notify Hess whether the requirements set forth in the applicable Sections have been completed in accordance with this Consent Decree. The parties recognize that ongoing obligations under such Sections remain and necessarily continue (*e.g.*, reporting, record keeping, training, auditing requirements), and Hess's certification is that it is in current compliance with all such obligations.

- i) If EPA concludes that the requirements have not been fully complied with, EPA shall notify Hess as to the activities that must be undertaken to

complete the applicable Sections of the Consent Decree. Hess shall perform all activities described in the notice, subject to its right to invoke the dispute resolution procedures set forth in Part XIV (Retention of Jurisdiction/Dispute Resolution).

- ii) If EPA concludes that the requirements of the applicable Section(s) have been completed in accordance with this Consent Decree, EPA will so certify in writing to Hess. This certification shall constitute the certification of completion of the applicable Section(s) for purposes of this Consent Decree.

d) Nothing in this Paragraph shall preclude the United States or New Jersey 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 this Paragraph. In addition, nothing in this Paragraph shall permit Hess to fail to implement any ongoing obligations under the Consent Decree regardless of whether a Certification of Completion has been issued with respect to this Paragraph.

189. At such time as the Refinery believes that it has satisfied the requirements for termination set forth in Paragraph 187(a) – (f), it shall certify such compliance and completion to the United States and New Jersey in writing. Unless, within 120 Days of receipt of Hess's certification under this Paragraph, either the United States or New Jersey objects in writing with specific reasons, the Court may upon motion by Hess order that this Consent Decree be terminated. If either the United States or New Jersey objects to the certification by Hess, then the matter shall be submitted to the Court for resolution under Part XIV (Retention of Jurisdiction/Dispute Resolution). In such case, Hess shall bear the burden of proving that this

Consent Decree should be terminated.

XVIII. SIGNATORIES

190. Each of the undersigned representatives certifies 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 and entered this _____ day of _____, 2012.

UNITED STATES DISTRICT JUDGE

A handwritten signature in black ink, consisting of a stylized cursive 'A' followed by a series of loops and a final flourish.

WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation.

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

Date: _____

IGNACIA S. MORENO
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

Date: _____

MYLES E. FLINT, II
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611
(202) 307-1859

WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation,

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

PAUL J. FISHMAN
UNITED STATES ATTORNEY
DISTRICT OF NEW JERSEY

Date: _____

By: _____



WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation,

FOR PLAINTIFF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: 3/19/12

CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency
Washington, D.C. 20460

Date: 1/19/2012

PHILLIP A. BROOKS
Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency
Washington, D.C. 20460

Date: 1/4/2012

ROBERT G. KLEPP
Air Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency
Washington, D.C. 20460

WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation,

FOR PLAINTIFF THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 2:

Date: _____

JUDITH A. ENCK
Regional Administrator
United States Environmental Protection Agency
Region 2
290 Broadway
New York, New York 10007-1866

Date: _____

ERIC SCHAAF
Regional Counsel
United States Environmental Protection Agency
Region 2
290 Broadway
New York, New York 10007-1866

Date: _____

MARIE QUINTIN
Assistant Regional Counsel
United States Environmental Protection Agency
Region 2
290 Broadway
New York, New York 10007-1866

WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation,

FOR PLAINTIFF THE STATE OF NEW JERSEY

JEFFREY S. CHIESA
Acting Attorney General
Of New Jersey

Date: _____

By: _____
SCOTT B. DUBIN
Deputy Attorney General
New Jersey Department of Law & Public Safety
Division of Law
25 Market Street, P.O. Box 093
Trenton, New Jersey 08625-0093

BOB MARTIN
Commissioner
New Jersey Department
Of Environmental Protection

Date: _____

By: _____
WOLFGANG SKACEL
Assistant Commissioner
Compliance & Enforcement
Mail Code 401-04B
P.O. Box 420
Trenton, New Jersey 08625-420

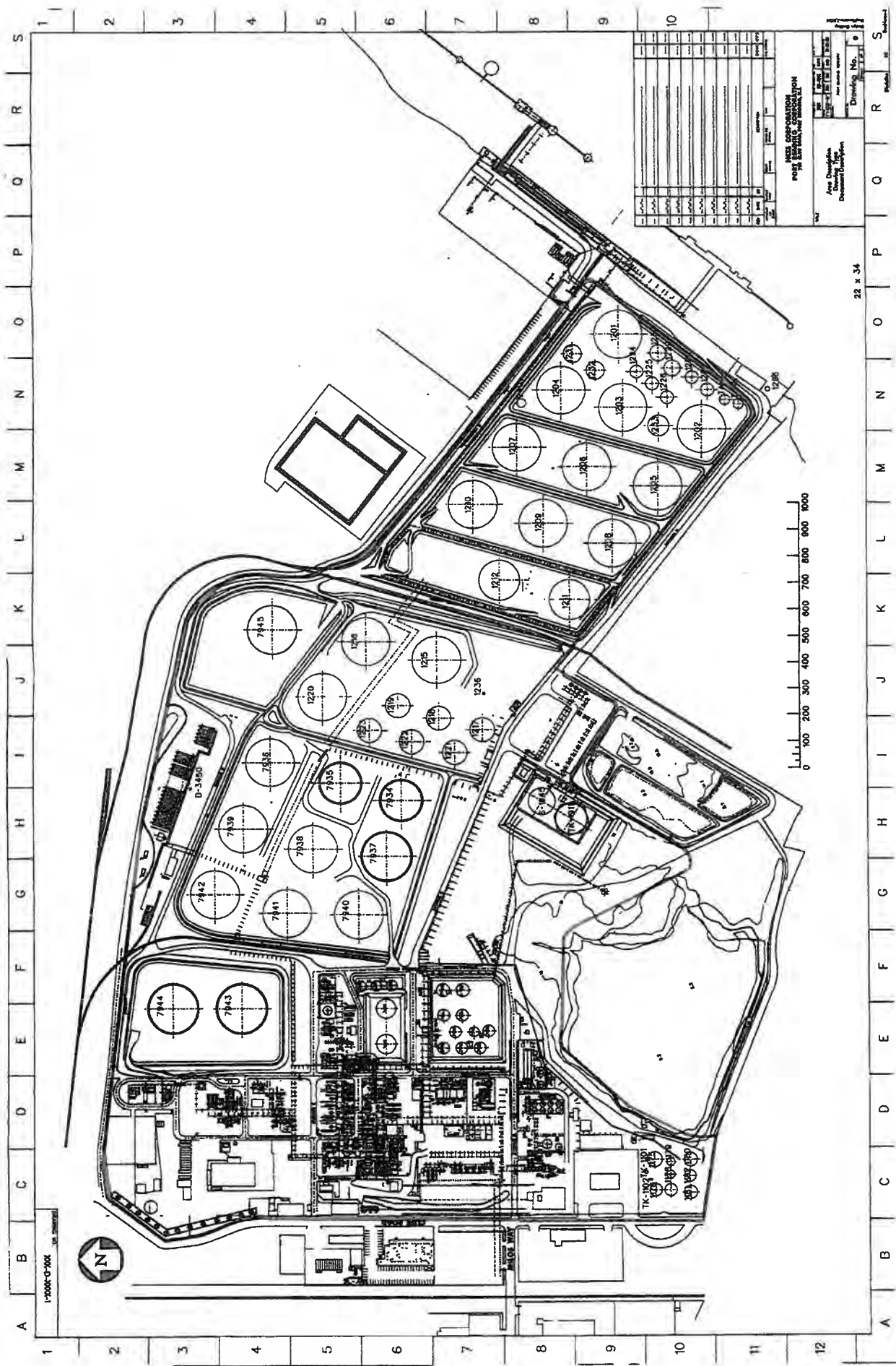
WE HEREBY CONSENT to the entry of the Consent Decree in United States et al. v. Hess Corporation,

FOR HESS CORPORATION:

Date: 2-24-12

DARIUS SWEET
Senior Vice President
Refining, Terminals and Supply

Appendix A
Plot Plan of Port Reading Refinery



6

Appendix B
Description of Wet Gas Scrubber Plus

WET GAS SCRUBBING PLUS (WGS+) PROCESS DESCRIPTION

The WGS+ process provides NO_x control using a two staged process of oxidation and absorption. This process is integrated into the WGS vessel downstream of the SO₂ and particulate control steps which take place in the WGS's High Energy Venturis.

The implementation of WGS + at the Port Reading Hess refinery can be accomplished in one of two ways; that is, partial implementation (Option A) or full implementation (Option B).

Option A: The existing WGS drum is outfitted with new internals as described below in the Oxidation and Final Demister sections.

Option B: The existing WGS drum height is increased to accommodate a second level of grid for additional absorption (in addition to the changes described in Option A) as described below in the Oxidation, Absorption and Final Demister sections.

With both Options A and B, the WGS+ process reduces NO_x in the FCCU flue gas through a process that first oxidizes the NO to NO₂ and then employs partial absorption of the NO₂ with an oxidant. Option B provides additional absorption for greater removal efficiencies.

Oxidation (Options A and B)

In the first stage of WGS+ (for both Options A & B) a 10 foot section of Koch-Glitch Flexipack provides contact area for the oxidization of NO with a once through mix of fresh makeup water and two proprietary chemicals (termed as DeNO_x additives). This oxidizing reagent solution is uniformly distributed above the grid through spray distribution piping and 316L SS/Hast-Alloy (C-276) spray nozzles. The grid in this 10 foot section is constructed of AL6XN due to the low pH zones formed within the grid. The low pH zones develop within the grid due to the oxidation that occurs as part of the process and that leads to nitric acid formation.

Absorption (Option B)

Option B includes an additional section of disengaging drum that is approximately 15 feet 6 inches in height and that is installed above the oxidizing section. This section contains a second upper chimney tray constructed of 316L SS followed by a 10 foot section of absorption grid comprised of 316L SS Koch-Glitch (high surface area) Flexipac. This absorption grid increases the NO_x removal efficiency.

The absorption grid uses a slurry reagent (buffered solution with sodium sulfite, bisulfite and sulfates) which is taken from the disengaging drum liquid inventory, then stripped of its solids by means of hydro-cyclones and then uniformly distributed above the absorption grid

via a 316L SS header and spray nozzles. The nitrate rich liquid which forms as a result of the absorption process is captured on the upper chimney tray and routed to the disengaging drum for reuse.

Final Demister (Options A and B)

A final chevron type demister is provided (above the oxidation grid for Option A and above the absorption grid for Option B) in order to minimize entrainment of small droplets generated by the upper spray nozzles. Although the demister is applied in a clean service, an upward directed intermittent wash spray header is provided for the demister in the event that cleaning is required.

Material/Specification Note

Where dimensions or material specifications are provided in this Appendix, such dimensions or specifications are subject to change in accordance with good engineering practice.

Appendix C
Demonstration Period Protocol

As required by Consent Decree Paragraphs 11a(ii) and (iii), 13A, 13B, and 15, Hess shall submit the following categories of data from the Pt Reading FCCU, on a daily or daily average basis as measured directly (where available) or as calculated (where necessary):

- a. Regenerator bed, dilute phase, cyclone, and flue gas temperatures;
- b. Coke burn rate in pounds per hour;
- c. FCCU feed rate in barrels per day;
- d. FCCU feed API gravity;
- e. FCCU feed sulfur and basic nitrogen (where available) content as a weight %;
- f. Estimated percentage, and where available, actual percentage of each type of FCCU feed component (i.e. atmospheric gas oil, vacuum gas oil, atmospheric, tower bottoms, vacuum tower bottoms, etc.);
- g. SRU incinerator firing rate (if applicable) (in scfm – daily average)
- h. Total Catalyst addition and catalyst circulation rates (in pounds per day);
- i. Low NOx combustion promoter addition rates (in pounds per day);
- j. Conventional combustion promoter addition rate (if any) (in pounds per day);
- k. Hourly and daily volume percent oxygen in the regenerator flue gas and at the point of CEMs measurement;
- l. Hourly and daily SO₂, NO_x, and CO mass emission rates in pounds per hour, tons per year, and concentrations in ppmvd at 0% oxygen; and
- m. Upon request by EPA or NJDEP, any additional, reasonably available data that EPA or NJDEP determines it needs to evaluate.

Appendix D

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FCCU/SRU/WGS Process Flow Diagram

