UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS

UNITED STATES of AMERICA, Plaintiff, v. Deer Park Refining Limited Partnership, Defendant.	)	Civil Action No.

CONSENT DECREE

WHEREAS, Plaintiff, the United States of America (hereinafter "Plaintiff" or "the United States"), on behalf of the United States Environmental Protection Agency (herein, "EPA"), has simultaneously filed a Complaint and lodged this Consent Decree against Deer Park Refining Limited Partnership, (hereinafter "DPRLP" or "Company"), for alleged environmental violations at the DPRLP Deer Park, Texas petroleum refinery, owned by DPRLP and operated by its General Partner, Shell Oil Company;

WHEREAS, the United States has initiated a nationwide, broad-based compliance and enforcement initiative involving the petroleum refining industry;

WHEREAS, the parties agree that the installation of equipment and implementation of controls pursuant to this Consent

Decree will achieve major improvements in air quality control;

WHEREAS, DPRLP has not answered or otherwise responded to the Complaint in light of the settlement memorialized in this and other Consent Decrees;

WHEREAS, the United States' Complaint alleges that DPRLP has been and is in violation of certain provisions of the following statutes and their implementing regulations: the Clean Air Act (the "Act"), 42 U.S.C. §7401 et seq.; the Resource Conservation and Recovery Act, ("RCRA"), 42 U.S.C. §§6901, et seq., and other state environmental statutory and regulatory requirements;

WHEREAS, the Texas Natural Resource Conservation Commission ("TNRCC") has expressed general approval of the terms of this Consent Decree;

WHEREAS, DPRLP has denied and continues to deny the violations alleged in each of the Complaints and maintain its defenses to the violations alleged;

WHEREAS, DPRLP has, in the interest of settlement, agreed to undertake installation of air pollution control equipment and enhancements to air pollution management practices at its refinery to reduce air emissions;

WHEREAS, projects undertaken pursuant to this Consent Decree are for the purpose of abating or controlling atmospheric pollution or contamination by removing, reducing, or preventing

the creation or emission of pollutants ("pollution control facilities") and as such, may be considered for certification as pollution control facilities by federal, state or local authorities

WHEREAS, DPRLP has waived any applicable requirements of statutory notice of the alleged violations;

WHEREAS, DPRLP has identified and self-reported certain potential violations of environmental statutes and agreed that settlement of these issues is the most expeditious method to resolve these potential violations;

WHEREAS, the United States and DPRLP have agreed that settlement of this action is in the best interest of the parties and in the public interest, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter; and

WHEREAS, the United States and DPRLP have consented to entry of this Consent Decree without trial of any issues;

NOW, THEREFORE, without any admission of fact or law, and without any admission of the violations alleged in the Complaints, it is hereby ORDERED AND DECREED as follows:

I. JURISDICTION AND VENUE

1. The Complaint states a claim upon which relief can be granted against DPRLP under Sections 113 and 167 of the CAA, 42 U.S.C. §§ 7413 and 7477, and 28 U.S.C. § 1355. This Court has

jurisdiction of the subject matter herein and over the parties consenting hereto pursuant to 28 U.S.C. § 1345 and pursuant to Sections 113 and 167 of the CAA, 42 U.S.C. §§ 7413 and 7477, and Section 3008 of RCRA, 42 U.S.C. §6928.

2. Venue is proper under Section 113(b) of the Clean Air Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c).

II. APPLICABILITY

3. The provisions of this Consent Decree shall apply to and be binding upon the United States and upon DPRLP as well as the DPRLP's officers, employees, agents, successors and assigns, and shall apply to the refinery for the life of the Decree. In the event DPRLP proposes to sell or transfer its refinery it shall advise in writing to such proposed purchaser or successor-in-interest of the existence of this Consent Decree and provide a copy of the Consent Decree, and shall send a copy of such written notification by certified mail, return receipt requested, to EPA before such sale or transfer, if possible, but no later than the closing date of such sale or transfer. This provision does not relieve DPRLP from having to comply with any applicable state or local regulatory requirement regarding notice and transfer of facility permits.

III. FACTUAL BACKGROUND

4. DPRLP owns the Deer Park petroleum refinery, in Deer Park, Texas, which is operated by its General Partner Shell Oil

Company, for the manufacture of various petroleum-based products, including gasoline, diesel, and jet fuels, and other marketable petroleum by-products.

5. Petroleum refining involves the physical, thermal and chemical separation of crude oil into marketable petroleum products.

6. The petroleum refining process at DPRLP's refinery results in emissions of significant quantities of criteria air pollutants, including nitrogen oxides ("NO_x"), carbon monoxide ("CO"), particulate matter ("PM"), sulfur dioxide ("SO_2"), as well as volatile organic compounds ("VOCs") and hazardous air pollutants ("HAPs"), including benzene.

7. The primary sources of these emissions are the fluid catalytic cracking unit ("FCCU"), process heaters and boilers, sulfur recovery plants, the wastewater treatment system, fugitive emissions from leaking components, and flares throughout the refinery.

IV. REDUCTIONS OF NOx EMISSIONS FROM THE FLUIDIZED CATALYTIC CRACKING UNIT ("FCCU")

Program Summary: DPRLP shall implement a program to reduce NOx emissions with the installation and operation of a Selective Catalytic Reduction ("SCR") system at its FCCU. DPRLP shall incorporate lower NOx emission limits into operating permits and will demonstrate future compliance with the lower emission limits through the use of a continuous emissions monitoring system ("CEMS").

A. SCR APPLICATION: DPRLP FCCU.

8. By no later than December 31, 2004, DPRLP shall complete

installation and begin operation of an SCR system or an alternative technology approved by EPA designed to achieve a NOx concentration of 20 ppmvd on a 365-day rolling average and 40 ppmvd on a 3-hour rolling average basis, each at 0% oxygen, on emissions from its FCCU.

9. By no later than June 30, 2003, or 18 months prior to the proposed installation, whichever is earlier, DPRLP shall submit to EPA the process design specifications for the SCR system, or alternative technology, at its FCCU. DPRLP and EPA agree to consult on the development of the proposed process design specifications for the SCR system, or alternative technology, prior to submission of DPRLP's final proposal.

10. The proposed process design specifications shall, at a minimum, consider the design parameters identified in Attachment 1 to this Consent Decree, which is incorporated herein by reference. EPA will provide comments to DPRLP within (60) sixty days of receipt of the process design specifications. Within sixty (60) days of receipt of EPA's comments on the proposed design, DPRLP shall modify the proposal to address EPA's comments, and submit the design to EPA for final approval. Upon receipt of EPA's final approval, DPRLP shall implement the design. DPRLP shall notify EPA of any substantial changes to the design of the SCR, or alternative technology, which may affect the performance of the SCR, or alternative technology.

B. SCR Optimization Study.

11. By no later than March 31, 2005, or 3 months after the installation and start-up of the SCR system, or alternative technology, whichever is earlier, DPRLP shall begin an interim six-month study and a final 4-year study (i.e., the period between the turnaround during which the SCR was installed and the next scheduled turnaround) (the Final Optimization Study) to optimize the performance of the SCR system, or alternative technology, to minimize NOx emissions from its FCCU ("Optimization Studies"). However, if prior to startup of the SCR DPRLP elects to accept NOx concentration limits of 20 ppmvd on a 365-day rolling average and 40 ppmvd on a 3-hour rolling average basis, each at 0% oxygen, Paragraphs 11 through 17 shall not apply.

12. DPRLP shall submit protocols for the Optimization Studies to EPA that include a consideration of the operating parameters contained in Attachment 1 to the Consent Decree. As part of the Optimization Studies, DPRLP shall evaluate the effect of the operating parameters contained in Attachment 1 and shall monitor NOx emissions and the operating parameters to identify optimum operating levels for the parameters that minimize the NOx emissions.

13. DPRLP shall submit the results of the Optimization Studies to EPA in a written report no later than sixty (60) days

after the completion of the studies. The reports shall identify the relevant operating parameters and their levels that result in maximum reductions of NOx emissions from its FCCU. The reports shall include, at a minimum, the following information:

(a) Regenerator flue gas temperature and flow rate;
(b) Coke burn rate;
(c) FCCU feed rate;
(d) FCCU feed sulfur content;
(e) CO boiler firing rate and fuel type;
(f) Reductant addition rates;
(g) Inlet and outlet temperature; and
(h) Hourly average NOx and O_2 concentrations at the point of emission to the atmosphere, and at the inlet to the SCR system.

14. As required in Paragraph 13(h), DPRLP shall determine the NOx and O2 concentrations at the point of emission to the atmosphere by CEMS and at the inlet to the SCR by process analyzer or CEMS. DPRLP shall report the data or measurements to EPA in electronic format.

C. <u>SCR Outlet Emission Limits</u>.

15. As part of its Optimization Study reports, DPRLP shall propose interim (following the six-month Optimization Study) and final (following the Final Optimization Study) concentration based limits to EPA, short and long term, and rolling averaging times (i.e., 3-hour, 12-hour, or 24-hour for short term rolling averages and 365-day for a long term rolling average), each at 0% oxygen for FCCU NOx emissions, for optimized operation of the control system consistent with the provisions of Paragraphs 12 and 14. The interim limits shall take into account the effect of

the catalyst aging over the period of operation up to the next scheduled turnaround. DPRLP shall comply with the interim limits it proposes beginning immediately upon submission of the 6-month Optimization Study report to EPA, until such time as DPRLP is required to comply with the interim emissions limits set by EPA, pursuant to Paragraphs 16 and 17. DPRLP shall comply with the final limits it proposes beginning immediately upon submission of the Final Optimization Study report to EPA, until such time as DPRLP is required to comply with the final emissions limits set by EPA, pursuant to Paragraphs 16 and 17.

16. EPA will use the CEMS data collected during the Optimization Studies, expected catalyst life, and all other available and relevant information to establish limits for NOx emissions from DPRLP's FCCU. EPA may establish NOx concentration limits based on a short term (e.g., 3-hour) rolling average and a long term (i.e., 365-day) rolling average, each at 0% oxygen. EPA will determine the NOx concentration limits and averaging times for the FCCU based on the level of performance during the Optimization Studies, a reasonable certainty of compliance, and any other available pertinent information.

17. EPA will notify DPRLP of its determination of interim and final NOx concentration limits and averaging times for each unit, and DPRLP shall immediately, or within 30 days if EPA's NOx concentration limit is different from DPRLP's proposed limit,

operate its SCR system, or alternative technology, so as to comply with the established emissions limits.

D. Demonstrating Compliance with SCR Emission limits.

18. Beginning no later than June 30, 2001, DPRLP shall use a NOx CEMS to monitor performance of the FCCU, and subsequently, the control system, and to report compliance with the terms and conditions of this Consent Decree. DPRLP shall make CEMS data available to EPA upon demand as soon as practicable.

19(a). DPRLP shall install, certify, calibrate, maintain, and operate all CEMS required by this Consent Decree in accordance with the requirements of 40 CFR §§ 60.11, 60.13 and Part 60 Appendix A, B, and F. These CEMS will be used to demonstrate compliance with emission limits.

19(b). DPRLP shall install, calibrate, maintain, and operate the inlet NOx process analyzer in accordance with the manufacturer's specifications.

V. REDUCTIONS OF SO_2 EMISSIONS FROM THE FCCU

Program Summary: DPRLP shall implement a program to reduce SO_2 emissions from its refinery FCCU by the installation and operation of a Wet Gas Scrubber ("WGS"). DPRLP shall incorporate lower SO2 emission limits into its operating permit and will demonstrate future compliance with the lower emission limits through the use of CEMS.

A. Installation and Operation of WGS on the Deer Park FCCU.

20. By no later than December 31, 2003, DPRLP shall complete installation and begin operation of a WGS on emissions from the FCCU. DPRLP shall design and operate the WGS to achieve

an SO_2 concentration of 25 ppmvd or lower on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each at 0% oxygen.

B. Demonstrating Compliance with SO2 Emission Limits

21. By no later than June 30, 2001,DPRLP shall use an SO_2 CEMS to monitor performance of the FCCU, and subsequently performance of the WGS, and to report compliance with the terms and conditions of this Consent Decree. DPRLP shall make CEMS data available to EPA upon demand as soon as practicable. 22. DPRLP shall install, certify, calibrate, maintain, and operate all CEMS required by this Consent Decree in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendix A, B, and F. These CEMS will be used to demonstrate compliance with emission limits.

VI. FCCU REGENERATOR NSPS SUBPARTS A and J APPLICABILITY.

23(a). Immediately upon lodging of this Consent Decree, DPRLP's FCCU Regenerator shall be an affected facility subject to the requirements of NSPS Subpart A and J for each relevant pollutant by the dates specified below:

SO2	- 12/31/03
PM	- 12/31/03
CO	- 12/31/03
Opacity	- upon lodging

23(b). Lodging of this Consent Decree shall constitute notification in accordance with 40 C.F.R. §60.7.

23(c). The performance testing required under 40 C.F.R.

§60.8 shall be presumed to be either the initial RATA or the first RAA as required by 40 C.F.R. 60 Appendix F (which is made applicable by this Consent Decree).

VII. RCRA COMPLIANCE AT DPRLP

Program Summary: DPRLP shall implement the following requirements to address RCRA non-compliance. These requirements are to correct violations identified by EPA or self-reported by DPRLP, as more specifically described in Part XVI (Effect of Settlement), Paragraph 172 (Other Issues).

24. By no later than June 30, 2001, shall provide secondary containment, as required under 40 C.F.R. § 265.193, capable of containing 100 percent of the volume of the two Baker tanks used at the DPRLP Deer Park facility to collect landfill leachate, or replace the tanks with double-walled tanks which comply with 40 C.F.R. Subpart J standards. DPRLP shall give written notice to the TNRCC and EPA when compliance with this provision is achieved.

25. The DPRLP Deer Park facility permit (HW-50099-001; Provision III.D.10.d) requires that "waste shall be placed no higher than 3.0 feet below the crest of the cell perimeter dike, and sloped up at not more than 2.0 percent to a crown in the center. No portion of the crowned waste shall be higher than the lowest elevation of the crest of the cell perimeter dike." To ensure compliance with this provision, DPRLP shall, upon lodging of this Consent Decree, immediately implement the following practices:

(a) when new waste is placed in the landfill or the level of waste is altered through grading, spreading or similar operations, DPRLP shall visually inspect the level of waste, using surveying stakes, to check for permit compliance; and

(b) maintain an inspection log of the inspections which includes waste height/elevation and percent slope.

26. DPRLP shall, upon lodging of this Consent Decree, immediately begin continuous pumping to remove the leachate in Cell #3 at the DPRLP Deer Park facility landfill. The pumping shall continue until the level of leachate is in compliance with permit HW-50099-001; Provision III.D.10.g. The Company shall give written notice to the TNRCC and EPA when compliance with this provision is achieved.

27. Beginning no later than March 31, 2001, DPRLP shall conduct weekly inspections of all cells at the Deer Park facility landfill to ensure that leachate levels are in compliance with permit requirements and maintain logs documenting the inspections.

28. Beginning no later than September 30, 2001, DPRLP shall cease dry weather flow into the North Pond and provide documentation [i.e. process flow diagrams] in the required reports indicating compliance was achieved.

29(a). Beginning no later than June 30, 2001, DPRLP shall submit a sampling plan to EPA and the TNRCC to determine the extent of contamination at the North Pond ("North Pond Sampling

Plan").

29(b). As part of the October 30, 2001 quarterly report, DPRLP shall include a statement on the compliance status and a process flow diagram depicting the steps taken to come into compliance with Paragraph 28.

30. DPRLP, shall, upon approval by EPA and the TNRCC, implement the North Pond Sampling Plan according to the approved schedule.

31. DPRLP shall submit a closure plan and post closure plan in compliance with 30 TAC Subchapter E (40 C.F.R. Subpart G), including a proposed schedule for closure to the TNRCC and EPA for modification and/or approval.

32. DPRLP shall, upon approval, implement the closure plans according to the approved schedule.

VIII. PROGRAM ENHANCEMENTS RE: BENZENE WASTE NESHAP

Program Summary: DPRLP shall undertake a refinery-wide audit of its refinery to determine its compliance with all Benzene Waste NESHAP requirements and to take corrective action where any areas of non-compliance are identified. In addition, DPRLP shall undertake the following refinery-wide measures, as enhancements to its existing program, to minimize or eliminate fugitive benzene waste emissions at the refinery.

A. Current Compliance Status.

33. In addition to the provisions of the enhanced program set forth in this Part, DPRLP shall continue to comply with the compliance option set forth at 40 C.F.R. § 61.342(e) (herein referred to as the "6BQ compliance option").

B. Compliance Status Changes.

34. From the date of lodging of this Consent Decree through termination, DPRLP shall not change the compliance status of its facility from the 6BQ compliance option to the 2Mg compliance option. DPRLP shall otherwise consult with EPA before making any change in compliance strategy not expressly prohibited by this Paragraph and all changes must be accomplished in accordance with the regulatory provisions set forth in the Benzene Waste NESHAP.

C. General Refinery-wide Compliance Audits.

35. Beginning no later than June 30, 2001, DPRLP shall undertake a refinery-wide audit to determine compliance with the Benzene Waste NESHAP, to include, at a minimum, each of the audit requirements set forth in Paragraphs 37 and 38, below. Within 30 days of its completion of the audit, DPRLP shall report to EPA and the TNRCC any areas of non-compliance identified as a result of the general, refinery-wide audit and shall submit in writing a proposed schedule for correcting the non-compliance.

36. DPRLP shall certify to the United States and TNRCC, that the audit and any related corrective action have been completed and that the refinery is in compliance. The United States will review DPRLP's certification and will respond with written concurrence. DPRLP's release from liability for all past civil claims related to its compliance with the Benzene Waste

NESHAP, through the date of lodging of this Consent Decree, as specified in Part XVII (Effect of Settlement), and release for those violations which DPRLP self-discloses as a result of its audit, will take effect upon the United States' concurrence with DPRLP's audit and compliance certification.

D. Waste Streams Audits

37. DPRLP shall conduct an audit of its waste stream inventory and Total Annual Benzene ("TAB") calculation. Sampling of the waste streams is not required for this audit. DPRLP may use previous analytical data or documented knowledge of waste streams, 40 C.F.R. § 61.355 (c)(2). The audit shall include, but not be limited to:

(a) An accounting of each waste stream (e.g., slop oil, tank water draws, spent caustic, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround wastes); and

(b) A review of the methods used to determine annual waste quantities.

E. Schedule for Waste Streams Audits.

38. DPRLP shall conduct the audits required by Paragraph 37, above, in accordance with the following schedule:

(a) By no later than January 31, 2002, DPRLP shall conduct the first phase of the audit at its refinery. This shall include, but not be limited to, a review of its waste operations to ensure all waste streams are accounted for, and a review of flow calculation and/or measurements for each waste stream.

(b) Based on EPA's review of the preliminary audit report, EPA will submit to DPRLP a list of up to twenty (20) waste streams for sampling for benzene concentration.

(c) DPRLP shall sample all waste streams identified by EPA no later than ninety (90) days from the date of receipt of EPA's list of waste streams for sampling.

(d) DPRLP shall use the results of the sampling conducted pursuant to Paragraphs 38(b) and (c) to calculate the TAB or uncontrolled benzene quantities. DPRLP shall submit the final results of this audit, including the final TAB calculations, to EPA no later than ninety (90) days after the date of completion of the sampling.

F. Carbon Canisters.

39. DPRLP shall comply with the requirements of Paragraphs 40 through 47 at all locations where a carbon canister(s) is utilized as the control device under the Benzene Waste NESHAP.

40. For all canisters that are operated as part of a primary and secondary system, "breakthrough" is defined as any reading of 50 ppm volatile organic compound ("VOC"). For all canisters that are operated as part of a single canister system, "breakthrough" is defined as any VOC reading above background.

41. At locations where DPRLP uses a water scrubber and carbon canister in series, the requirements for single canister systems apply.

42. Primary and Secondary Carbon Canisters. By no later than January 31, 2002, DPRLP shall install primary and secondary carbon canisters and operate them in series, or in the alternative, it may install a water scrubber and carbon canister

operated in series.

43. Within 7-days of installation of each secondary carbon canister, DPRLP shall monitor for breakthrough between the primary and secondary carbon canisters at times when there is actual flow to the carbon canister, in accordance with the frequency specified in 40 C.F.R. § 61.354(d).

44. DPRLP shall replace the primary carbon canisters with fresh carbon canisters immediately when breakthrough is detected in accordance with 40 C.F.R. § 61.354(d). The original secondary carbon canister will then become the new primary carbon canister. For this Paragraph, "immediately" shall mean eight (8) hours for canisters of 55 gallons or less, twenty-four (24) hours for canisters between 55 gallons up to 20,000 lbs., and 48 hours for canisters 20,000 lbs. or larger.

45. For canisters 20,000 lbs. or larger, once breakthrough is detected, DPRLP shall make every effort to shut off the flow to the canister system until the replacement canister is in place. If DPRLP is unable to shut off the flow to the canister system before the primary canister is replaced, then DPRLP shall monitor the inlet and outlet to the secondary canister on an hourly basis until the replacement canister is in place.

46. Utilizing single carbon canisters. Beginning no later than the date of lodging of this Consent Decree, DPRLP shall monitor for breakthrough from a single carbon canister at times

when there is actual flow to the carbon canister, in accordance with the frequency specified in 40 C.F.R. § 61.354(d).

47. For locations where single canisters are utilized, canisters will be replaced when breakthrough is determined within eight (8) hours for canisters with historical replacement intervals of two weeks or less or within twenty-four (24) hours for canisters with a historical replacement interval of more than two weeks.

G. Annual Program.

48. DPRLP shall establish an annual program of reviewing process information for its refinery, including but not limited to construction projects, to ensure that all new benzene waste streams are included in its waste stream inventory.

H. Laboratory Audits.

49. DPRLP shall conduct audits of all laboratories that perform analysis of its benzene waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed.

50. No later than January 1, 2002, DPRLP shall conduct the audit(s) of the laboratories used by the refinery.

51. During the life of this Consent Decree, DPRLP shall conduct subsequent laboratory audits for the refinery every two (2) years, or prior to using a new lab for analysis of benzene samples.

I. Benzene Spills.

52. DPRLP shall account for all benzene wastes generated through spills in its TAB calculations. In addition, DPRLP shall review all reportable spills within its refinery to determine if benzene waste was generated. DPRLP shall account for all benzene wastes generated through spills in its Total Annual Benzene ("TAB") calculation.

53. DPRLP shall account for all benzene wastes generated through spills that are not managed solely in controlled waste management units in its 6 Mg/yr calculation, as appropriate.

J. Training.

54. By no later than June 30, 2001, DPRLP shall develop and implement annual training for all employees required to take benzene waste samples.

55. By no later than December 31, 2001, DPRLP shall establish standard operating procedures for all control equipment used to comply with the Benzene Waste NESHAP and include them in annual training for operators assigned to this equipment.

56. As part of DPRLP's training program, it must ensure that contractors hired to perform the requirements of this Section of this Consent Decree are properly trained to implement all provisions.

K. Waste/Slop Oil Management.

57. By no later than January 1, 2002, DPRLP shall maintain

records of waste/slop oil movements for waste streams (organic or aqueous) which are not controlled.

58. General Sampling. Equilon, Motiva, and DPRLP, in consultation with EPA, and the appropriate state personnel, will select one of the nine refineries which they own at which to conduct a preliminary evaluation to identify potential sample locations, determine "end of line benzene" sample locations, and review available oil movement transfer documentation to assist DPRLP with preparation of their sampling plan.

L. Sampling (6 Mg/yr).

59. DPRLP shall conduct a quarterly "end of the line" benzene determination to confirm that the refinery is complying with the 6 Mg/yr compliance option (40 C.F.R. § 61.342(e)).

60. Within two (2) months of DPRLP's consultation with EPA as required by Paragraph 58, but no later than September 30, 2001, DPRLP shall submit a plan to EPA for approval that contains proposed sampling locations and methods for flow calculations to be used in the quarterly benzene determination.

61. The sampling shall begin during the first full calendar quarter after DPRLP receives its respective written approval from EPA of the sampling plans required by this Section.

62. Beginning no later than the first full calendar quarter following EPA's approval under Paragraph 61, DPRLP shall sample quarterly all uncontrolled waste streams that count toward the 6

Mg/yr calculation and contain greater than 0.05 Mg/yr of benzene.

M. Miscellaneous Measures.

63. DPRLP shall manage all groundwater remediation conveyance systems in accordance with the Benzene Waste NESHAP 40 C.F.R. §61.342(a)(3).

64. DPRLP shall implement the following compliance measures at its refinery:

(a) Conduct monthly visual inspections of all water traps within its individual drain systems;

(b) Identify and mark all area drains that are stormwater drains;

(c) Where installed, monitor all conservation vents on process sewers for detectable leaks on a weekly basis; and

(d) Conduct quarterly monitoring at the controlled oil/water separators in benzene service in accordance with 40 C.F.R. §61.347.

65. DPRLP shall account for and include in the TAB all slop oil recovered from its oil/water separators or sewer system until recycled or put into a feed tank, in accordance with 40 C.F.R. § 61.342(a). DPRLP shall meet the control standards specified for all tanks handling waste benzene (40 C.F.R. §§ 61.343 or 61.351), except where DPRLP can demonstrate that the tank is otherwise exempt under 40 C.F.R. §61.342.

N. Projects/Investigations.

66. By no later than January 31, 2002, DPRLP shall evaluate

the following at its refinery including, but not limited to, each project's feasibility and estimated cost for implementation:

(a) Installation of closed loop sampling devices on all sampling points on waste and process streams that are greater than 10 ppmw benzene and contain greater than 0.01 megagrams per year (Mg/yr) benzene; and

(b) Installation of new sample points at all locations where routine process sampling points are not easily accessible.

67. DPRLP shall submit a report summarizing the results of the evaluations of the projects identified in Paragraph 66 above, within one-hundred twenty (120) days after the date of completion of each study. These reports shall include at a minimum, the feasibility of each project, the estimated cost of completion, DPRLP's decision as to whether or not to implement each project, and the basis for deciding not to implement the project, as appropriate.

O. Quarterly Reports.

68. Beginning the first full calendar quarter after the date of lodging of this Consent Decree, DPRLP shall submit a report to EPA that includes the information requested in Paragraphs 72 through 77, and the specific progress information requested in Paragraphs 69 through 71, as appropriate. The quarterly report shall be due no later than thirty days after the end of each calendar quarter.

69. Canisters and Water Scrubbers. DPRLP shall submit a project completion report to EPA upon completing the installation

of all of the secondary carbon canisters or water scrubbers. This report shall be included in the first quarterly report following completion and shall include a list of all locations within the facility where secondary canisters or water scrubbers were installed, the installation date of each secondary canister or water scrubber, and the date that each secondary canister or water scrubber was put into operation.

70. Audits. DPRLP shall submit a report to EPA summarizing the results of the initial lab audits upon their completion as specified in Paragraph 49 and 50. This report shall be included in the first quarterly report following completion and shall include, at a minimum, identification of all labs audited, a description the methods used in the audit, and the results of the audit.

71. Training. As part of its quarterly reports, DPRLP shall include a report to EPA that details the training it will implement pursuant to Paragraphs 54 - 56 above.

72. DPRLP shall include in its Quarterly report the results of the quarterly sampling conducted pursuant to Paragraph 62 above. This shall include a list of all waste streams sampled and all results of benzene analysis for each waste stream.

73. DPRLP shall include in its Quarterly Reports the results of the quarterly end of the line sampling conducted pursuant to Paragraph 59 above.

74. DPRLP shall use all sampling results and approved flow calculation methods pursuant to Paragraph 60 and 61 above, to calculate and include in its Quarterly Report a quarterly and a projected calendar year value against the 6BQ compliance options.

75. Quarterly Calculations. If the quarterly calculation for the refinery pursuant to Paragraph 74 exceeds 1.5 Mg, since it is complying with the 6BQ compliance option, DPRLP shall include in its Quarterly Report a summary and schedule of the activities planned to minimize benzene wastes at the refinery for the rest of the calendar year to ensure that the calendar year calculation complies with the 6BQ compliance option.

76. Projected Annual Calculations. If any projected annual calculation for the refinery made pursuant to Paragraph 74 above, exceeds 6 Mg, DPRLP shall include in its Quarterly Report a summary and schedule of the activities planned to minimize benzene wastes at the refinery to ensure that the calendar year calculation complies with the Benzene Waste NESHAP.

77. DPRLP shall identify all labs used during the quarter for analysis of benzene waste samples and provide the date of the most recent audit of each lab.

IX. PROGRAM ENHANCEMENTS RE: LEAK DETECTION AND REPAIR

Program Summary: DPRLP shall undertake audits of the components in light liquid and gaseous service at its refinery to determine compliance with all of the requirements of the Leak Detection and Repair ("LDAR") regulations and to correct any areas of non-compliance. In addition, DPRLP shall undertake the following enhancements to its LDAR program consisting of refinery-wide

measures to minimize or eliminate fugitive emissions from components in light liquid and gaseous service at its refinery in accordance with the schedule set forth below.

78(a). The requirements of this Part shall only apply to components in light liquid and gaseous service.

A. Written Refinery-Wide Program.

78(b). By no later than September 30, 2001, DPRLP shall develop and maintain a written refinery-wide program for LDAR compliance at its refinery and shall implement this program refinery-wide. The refinery-wide program shall include at a minimum:

(a) An overall refinery-wide leak rate goal that will be achieved on a process unit-by-process unit basis. Results of daily monitoring shall be communicated to appropriate unit supervisors;

(b) Identification of all valves and pumps that have the potential to leak volatile organic compounds or hazardous air pollutants within process areas that are owned and maintained by the refinery;

(c) Procedures for identifying leaking pumps and valves;

(d) Procedures for repairing and tracking leaking components;

(e) Procedures for identifying and including new valves and pumps in the LDAR program; and

(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.

B. Training.

79. By no later than March 31, 2002, DPRLP shall implement the following training program at the refinery:

(a) For new LDAR personnel, DPRLP shall provide and require LDAR training prior to each employee beginning work in the LDAR group;

(b) For all LDAR personnel, DPRLP shall provide and require completion of annual LDAR training; and

(c) For all other refinery operations and maintenance personnel (including contract personnel), DPRLP shall provide and require annual review courses including relevant aspects of the LDAR program.

C. LDAR Audits.

80. Beginning no later than June 30, 2001, DPRLP shall undertake a refinery-wide audit of its compliance with the LDAR regulations, to include, at a minimum, each of the audit requirements set forth in Paragraph 82. Within 30 days of completion of the audit, DPRLP shall report to EPA 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.

81. Within 60 days of completing the audit, DPRLP shall certify to EPA that the audit and related corrective action have been completed and that the refinery is in compliance or on a compliance schedule. The United States will review DPRLP's certification and will respond with written concurrence. DPRLP's release from liability as specified in Part XVII (Effect of Settlement), for all past civil claims related to its compliance with the LDAR requirements through the date of lodging of this Consent Decree at the refinery, and a release for those

violations which DPRLP self-discloses as a result of its audit, will take effect upon the United States' concurrence with DPRLP's audit and compliance certification.

82. Audit Program. DPRLP's LDAR audit program shall, at a minimum, focus on comparative monitoring, records review, tagging, data management, and observation of the LDAR technicians' calibration and monitoring techniques. During the audits, leak rates shall be calculated for each process unit where comparative monitoring was performed. These leak rates shall be based on the total number of valves in the process unit, rather than the total number of valves monitored during the audit. For process units complying with the Sustainable Skip Period Program, in accordance with Attachment 2 to this Consent Decree, DPRLP shall use the leak rates calculated during the audit to determine if more frequent monitoring is required.

83. External Audits. DPRLP shall conduct an external audit of the refinery's LDAR program at least once every four (4) years. The first external audit shall be conducted no later than one year from the date of lodging of this Consent Decree, and shall continue every 4 years after that.

84. Internal Audits. DPRLP shall conduct internal audits of the refinery's LDAR program according to the broad framework approved by EPA. These audits shall be conducted by personnel familiar with the LDAR Program and its requirements from one or

more of the eight (8) refineries operated by Motiva or Equilon. The first of these internal LDAR audits shall be held no later than two years from the date of the initial external audit required in Paragraph 83 above, and held every four years thereafter for the life of this Consent Decree.

85. Alternative. As an alternative to the internal audits required by Paragraph 84, above, DPRLP may elect to perform external audits instead, provided that an audit occurs every two (2) years.

D. Pump Monitoring.

86. By no later than March 31, 2003, DPRLP shall utilize an internal leak definition of 2000 ppm for all pumps. DPRLP may continue to report leak rates against the applicable regulatory leak definition, or use the lower leak rate definition for regulatory reporting purposes. Pumps shall be monitored monthly.

E. Valve Leak Definition.

87. By no later than March 31, 2003, DPRLP shall utilize an internal leak definition of 500 ppm for all valves, excluding pressure relief devices. DPRLP may continue to report leak rates against the applicable regulatory leak definition, or use the lower leak rate definition for regulatory reporting purposes.

F. Repairs.

88. DPRLP shall track, repair, and re-monitor all leaks above the internal leak definitions of 2000 ppm for pumps and 500

ppm for valves, except that DPRLP shall have thirty (30) days to make repairs and re-monitor leaks that are greater than these internal leak definitions and less than the appropriate regulatory leak definition.

89. Beginning no later than June 30, 2001, DPRLP shall make a "first attempt" at repair on any valve that has a reading greater than 100 ppm of VOC or hazardous air pollutant, excluding control valves, pumps, and components that LDAR personnel are not authorized to repair.

90. As part of the "first attempt at repair program", DPRLP shall record, track and re-monitor leaks above the internal leak definitions as specified above in Paragraphs 86 and 87. However, DPRLP shall immediately re-monitor all valves that LDAR personnel attempted to repair to ensure that the leaks have not been made worse. If DPRLP can demonstrate with sufficient monitoring data that "first attempt" repair at 100 ppm worsens leaks, after 2 years DPRLP may request that the United States reconsider or amend this requirement.

G. <u>LDAR Monitoring Frequency</u>.

91. By no later than March 31, 2003, DPRLP shall implement more frequent monitoring of all valves by choosing one of the following options on a process-unit-by-process-unit basis:

(a) Quarterly monitoring with no ability to skip periods. This option cannot be chosen for process units subject to the HON or the modified-HON option in the Refinery

MACT; or

(b) Sustainable Skip Period program, as set forth in Attachment 2 to this Consent Decree, which is incorporated herein by reference.

(c) For units complying with the Sustainable Skip Period, previous process unit monitoring results may be used to determine the initial skip period interval provided that each valve has been monitored using the 500 ppm leak definition.

92. For process units complying with the Sustainable Skip Period Program set forth in Paragraph 91(b), above, EPA or the State or local agency may require DPRLP to implement more frequent monitoring of valves if the leak rate determined during an EPA, State or local inspection demonstrates that more frequent monitoring is appropriate. In evaluating whether the leak rate demonstrates that more frequent monitoring of valves is appropriate, EPA, the State, or the local agency will determine the leak rate based on the total number of valves in the process unit, rather than the total number of valves monitored during the inspection.

93. Process units monitored in the Sustainable Skip Period Program method may not revert to quarterly monitoring if the most recent monitoring period demonstrates that more than two percent of the valves were found leaking.

H. <u>Dataloggers</u>.

94. By no later than March 31, 2003, DPRLP shall use dataloggers and/or electronic data storage for LDAR monitoring,

in accordance with operational specifications to be proposed by DPRLP and approved by EPA.

95. DPRLP will have the ability to use paper logs where necessary or more feasible (i.e., small rounds, re-monitoring, or when dataloggers are not available or broken), any manually recorded monitoring data shall be transferred to the electronic database, in accordance with Paragraph 96, within 7 days of monitoring.

96. By no later than March 31, 2001, DPRLP shall create and maintain an electronic database for storage and reporting of data. DPRLP shall ensure that the collected monitoring data includes a time/date stamp, operator identification, and instrument identification for all monitoring events.

I. LDAR Data QA/QC.

97. Beginning no later than March 31, 2001, DPRLP shall conduct a daily quality assurance/quality control ("QA/QC") review of all data after receiving the data from the LDAR monitoring technicians. This review shall include such things as: number of components monitored per technician, time between monitoring events, and abnormal data patterns.

J. LDAR Personnel.

98. By no later than June 30, 2001, DPRLP shall establish a program that will hold LDAR personnel accountable for LDAR performance. DPRLP shall maintain a position (or under contract)

responsible for LDAR coordination, with the authority to implement improvements.

K. Monitoring After Turnaround or Maintenance.

99. DPRLP shall have the option of monitoring affected valves and pumps within process unit(s) after completing a documented maintenance, startup, or shutdown activity without having the results of the monitoring count as a scheduled monitoring activity, provided that DPRLP monitor according to the following schedule:

(a) For events involving 1000 or fewer valves and pumps, DPRLP shall monitor within one (1) week of the documented maintenance, start-up, or shutdown activity;

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

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

L. Calibration

100. All calibrations of LDAR monitoring equipment shall be conducted using methane as the calibration gas in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

M. Calibration Drift Assessment.

101. Beginning no later than the date of lodging of this Consent Decree, DPRLP shall conduct calibration drift assessments of the LDAR monitoring equipment at a minimum, at the end of each

monitoring shift.

102. The calibration drift assessment shall be conducted, at a minimum, using a 500 ppm calibration gas and a calibration gas representing the highest regulatory leak definition at the refinery.

103. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, DPRLP shall re-monitor all valves and pumps that were monitored since the last calibration, and had readings greater than 100 ppm.

N. Delay of Repair.

104. Beginning no later than June 30, 2001, for any valve DPRLP is allowed under the applicable regulations to place on the "delay of repair" list for repair, DPRLP shall:

(a) Require sign-off by the unit supervisor that the component is technically infeasible to repair without a process unit shutdown, before the component is eligible for inclusion on the "delay of repair" list;

(b) Establish a leak level of 50,000 ppm at which it will undertake extraordinary efforts to fix the leaking valve rather than put the valve on the "delay of repair" list, unless DPRLP can demonstrate that there is a safety or major environmental concern posed by repairing the leak in this manner. For valves, extraordinary efforts or repairs shall be defined as non-routine repair methods, such as the drill and tap;

(c) Include valves that are placed on the "delay of repair" list in its scheduled LDAR monitoring, and make extraordinary repairs if leak reaches 50,000 ppm; and

(d) Undertake extraordinary efforts to repair valves that have been on the "delay of repair" list for a period of 3 years and leaking at a rate of 10,000 ppm, unless DPRLP can demonstrate that there is a safety or major environmental concern posed by repairing the leak in this manner.

O. Recordkeeping and Reporting Requirements For Part IX

105. Quarterly Progress Reports. DPRLP shall maintain and submit the following information as part of the quarterly progress report submitted pursuant Part XII (General Recordkeeping, Report Retention, and Reporting) (or less often if so indicated). Reports are to be submitted to EPA:

(a) DPRLP shall report on an annual basis the results of the audits conducted pursuant to Paragraph 83 - 85. DPRLP shall include in these reports a description of changes it plans based on the results of the audits. These reports shall be due on or before January 31 of each year during the life of this Consent Decree. DPRLP shall maintain the audit results from Paragraphs 80 - 83 and documentation of any corrective action implemented for the life of this Consent Decree. The audit results shall be made available to the EPA, State and local authorities upon request;

(b) As part of its first progress report required by this Consent Decree, DPRLP shall submit a certification that it has implemented the calibration drift assessments described in Paragraph 101-103;

(c) As part of its first progress report required by this Consent Decree, DPRLP shall include a certification that it has implemented the "delay of repair" requirements described in Paragraph 104;

(d) In its first progress report due under this Consent Decree, DPRLP shall submit a certification that the first attempt repair program as described in Paragraph 89 and 90 has been implemented;

(e) As part of the first progress report submitted after June 30, 2001, DPRLP shall include a description of the accountability programs that are developed pursuant to Paragraph 98;

(f) As part of the first progress report required to be submitted after July 1, 2001, DPRLP shall submit a status report on the use of dataloggers and/or electronic data storage for data monitoring as required by Paragraph 94 - 96;

(g) As part of the first progress report required to be submitted after September 30, 2001, DPRLP shall include a copy of the written LDAR program developed pursuant to Paragraph 78 (b);

(h) In the first progress report due after the training program required by Paragraph 79 has been implemented at its refinery, DPRLP shall submit a description of the various training programs and a certification that the training has been implemented; and

(i) Quarterly Monitoring Reports. DPRLP shall submit quarterly monitoring reports to EPA with the results of the LDAR monitoring performed pursuant to this Consent Decree. This report shall include:

(1) A list of the process units monitored during the quarter;

(2) Whether each process unit is complying with quarterly monitoring or the Sustainable Skip Period program;

(3) The number of valves and pumps monitored in each unit;

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

(5) The number of "difficult to monitor" components monitored;

(6) The projected month of the next monitoring event for that unit; and

(7) A list of all valves and pumps currently on the delay of repair list and the date each component was put on such list.

X. PROGRAM ENHANCEMENTS RE: NSPS SUBPARTS A AND J SO2 EMISSIONS FROM SULFUR RECOVERY PLANTS ("SRP") AND FLARING

PROGRAM SUMMARY: Beginning immediately upon the lodging of this Consent Decree, DPRLP agrees to take the following measures at its SRPs and certain flaring devices at its refinery. DPRLP shall eliminate all reasonably preventable SO2 emissions from flaring. DPRLP will implement procedures for root cause analysis of acid gas flaring incidents at its refinery. DPRLP shall strive to extend the duration between SRP maintenance shutdowns (unscheduled or scheduled) to three years or greater.

A. DEFINITIONS.

106. Unless otherwise expressly provided herein, terms used in this Part shall have the meaning given to those terms in the Clean Air Act, 42 U.S.C. §§ 7401 et seq., and the regulations promulgated thereunder. In addition, the following definitions shall apply to the terms contained within this Part of this Consent Decree:

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

(b) "AG Flaring" shall mean, for purposes of this Consent Decree, the combustion of Acid Gas and/or Sour Water Stripper Gas in a Flaring Device. Nothing in this definition shall be construed to modify, limit, or affect EPA's authority to regulate the flaring of gases that do not fall within the definitions contained in this Decree of Acid Gas or Sour Water Stripper Gas;

(c) "AG Flaring Device" shall mean any device at the Refinery 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 elemental sulfur or sulfuric acid. The combustion of Acid Gas and/or Sour Water Stripper Gas at the DPRLP occurs at the following locations:
North Property Flare;

East Property Flare; and
EP (Ethylene Plant) Flare.

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

(e) "Day" shall mean a calendar day.

(f) "Hydrocarbon Flaring" (or "HC Flaring") shall mean, for purposes of this Consent Decree, the combustion of refinery process gases, except for AG and/or Sour Water Stripper Gas and/or Tail Gas, in a HC Flaring Device. Nothing in this definition shall be construed to modify, limit, or affect EPA's authority to regulate the flaring of gases that do not fall within the definitions contained in this Consent Decree.

(g) "Hydrocarbon Flaring Device" shall mean a flare device used to safely control (through combustion) any excess volume of a refinery process gas other than Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas as follows: The North Flare, West flare, and the Coker/GOHT Flare.

Additional flaring devices subject to this definition may be identified pursuant to the audits required by Paragraph 107(a).

(h) "Hydrocarbon Flaring Incident" shall mean the continuous or intermittent flaring of refinery process gases, except for AG or Sour Water Stripper Gas or Tail Gas, at a HC Flaring Device that results in the emissions of sulfur dioxide that are either (1) equal to or greater than five-hundred (500) pounds in a 24-hour period in excess of the flare's existing federally

enforceable permit level, or (2) equal to or greater than five-hundred (500) pounds in a twenty-four (24) hour period where no federally enforceable permitted emissions level exists.

(i) "Malfunction" shall mean 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.

(j) "Root Cause" shall mean the primary cause of an AG or HC Flaring Incident as determined through a process of investigation; provided, however, that if a Flaring Incident encompasses multiple releases of sulfur dioxide, the "Root Cause" may encompass multiple primary causes.

(k) "Scheduled Maintenance" of an SRP shall mean any shutdown of an SRP that DPRLP schedules at least ten (10) days in advance of the shutdown for the purpose of undertaking maintenance of that SRP.

(l) "Shutdown" shall mean the cessation of operation of an affected facility for any purpose.

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

(n) "Startup" shall mean the setting in operation of an affected facility for any purpose.

(o) "Sulfur Recovery Plant" shall mean the devices identified as SRUs 3, 4, 5, 6, 7, and 8.

(p) "Tail Gas" shall mean exhaust gas from the Claus trains and the tail gas treating unit ("TGTU") section of the SRP;

(q) "Tail Gas Incident" (or "TGI") shall mean, for the purpose of this Consent Decree, combustion of Tail Gas that either: (i)is combusted in a flare and results in 500 pounds of sulfur dioxide emissions in a 24 hour period; or(ii) is combusted in a monitored incinerator and the amount of sulfur dioxide emissions in excess

of the 250 ppm limit on a rolling twenty-four hour average exceeds 500 pounds. However, such emissions shall not be considered a TGI where exempt under NSPS Subparts A and J.

(r) "Upstream Process Units" shall mean all amine contactors, 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 scrubbers, or sour water strippers.

B. FLARE NSPS SUBPARTS A and J APPLICABILITY.

107(a). By no later than June 30, 2001, DPRLP shall develop and submit for EPA approval a protocol for an audit of pre-1973 flares, including the following: East Property, CCU, and South Property. DPRLP shall begin the audit by September 30, 2001. Within 30 days of completing the audit, DPRLP shall submit the audit results to EPA, identify the flares for which it will accept NSPS Subpart J applicability and propose a schedule for achieving compliance. DPRLP shall submit notifications as required by 40 C.F.R. § 60.7 to EPA when it has achieved compliance for each particular flare. Such notifications shall be included in DPRLP's next quarterly report following compliance, as required under Part XII.

C. SRP NSPS SUBPARTS A and J APPLICABILITY.

107(b). Immediately upon lodging of this Consent Decree, SRUs 5, 6, 7, and 8 shall be subject to and will continue to comply with the applicable provisions of NSPS Subparts A and J.

By no later than September 30, 2002, SRUs 3 and 4 shall comply with the applicable provisions of NSPS Subparts A and J.

108. Immediately upon lodging of this Consent Decree, DPRLP agrees that all emission points (stacks) to the atmosphere for tail gas emissions from SRUs 5, 6, 7, and 8 will continue to be monitored and reported upon as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105. By no later than September 30, 2002, tail gas emissions from SRUs 3 and 4 shall be monitored and reported upon as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105. This requirement is not applicable to the AG Flaring Devices identified in Paragraph 106(c).

109. By no later than December 31, 2004, DPRLP shall re-route all SRP sulfur pit emissions from its refinery, such that all sulfur pit emissions to the atmosphere are either eliminated, or included and monitored as part of the applicable SRP's emissions that meet the NSPS Subpart J limit for SO2, a 12-hour rolling average of 250 ppmvd SO2 at 0% oxygen, as required by 40 C.F.R. § 60.104(a)(2).

110. During the life of this Consent Decree, DPRLP shall continue to conduct SRP emissions monitoring with CEMS at all of the emission points unless an SO2 alternative monitoring procedure has been approved by EPA, per 40 C.F.R. § 60.13(i), for any of the emission points.

111. During the life of this Consent Decree, for the purpose

of determining compliance with the SRP emission limits, DPRLP shall apply the "start-up/shutdown" provisions set forth in NSPS Subpart A to the Claus Sulfur Recovery Plant and not to the independent start-up or shut-down of its corresponding control device(s) (e.g. TGTU). However, the malfunction exemption set forth in NSPS Subpart A shall apply to both the Claus Sulfur Recovery Plant and its control device(s) (e.g., TGTU).

D. SULFUR RECOVERY PLANT OPTIMIZATION.

112. An SRP optimization study, if required to be implemented under this Part, shall meet the following requirements:

(a) A detailed evaluation of plant design and capacity, operating parameters and efficiencies - including catalytic activity, and material balances;

(b) An analysis of the composition of the acid gas and sour water stripper gas resulting from the processing of sour crude slate;

(c) A thorough review of each critical piece of process equipment and instrumentation within the Claus train that is designed to correct deficiencies or problems that prevent the Claus train from achieving its optimal sulfur recovery efficiency and expanded periods of operation;

(d) Establishment of baseline data through testing and measurement of key parameters throughout the Claus train;

(e) Establishment of a thermodynamic process model of the Claus train;

(f) For any key parameters that have been determined to be at less than optimal levels, initiation of logical, sequential, or stepwise changes designed to move such parameters toward their optimal values;

(g) Verification through testing, analysis of continuous emission monitoring data or other means, of incremental and cumulative improvements in sulfur recovery efficiency, if any;

(h) Establishment of new operating procedures for long term efficient operation; and

(i) Each study shall be conducted to optimize the performance of the Claus trains in light of the actual characteristics of the feeds to the SRUs.

E. PAST FLARING ANALYSIS

113. DPRLP shall identify causes of AG Flaring at its refinery for AG Flaring Incidents that occurred from May 31, 1996 through May 31, 2001. DPRLP has implemented (or is in the process of identifying and implementing) corrective actions to minimize the number and duration of AG Flaring events. DPRLP shall comply with the AG Flaring requirements of this Part to the extent that the Acid Gas is generated by the refinery.

114. By no later than September 30, 2001, DPRLP shall submit to EPA Region 6 a report which contains an examination of all past AG Flaring Incidents for the period of five years prior to the date of lodging of this Consent Decree ("Past Flaring Incident Analysis Report"). The Past Flaring Incident Analysis Report shall contain for each AG Flaring Incident identified:

(a) The date and time that the AG Flaring Incident started and ended;

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

(c) An analysis that sets forth the Root Cause, where available, and all contributing causes of that AG

Flaring Incident, identifying those causes that are malfunctions;

(d) An analysis of the corrective actions, if any, that were taken to reduce the likelihood of a recurrence of an AG Flaring Incident resulting from the same Root Cause, where available or contributing causes in the future. The analysis shall identify the implementation dates of the corrective actions, and a description of the effectiveness of the Corrective Action(s) in addressing the Root Cause;

(e) If corrective action(s) had not been taken to address the Root Cause of an AG Flaring Incident, where available, or it is determined that the corrective action(s) that had been taken has (have) not been effective in eliminating AG Flaring Incidents arising from the same Root Cause, and DPRLP concludes that Corrective Action(s) is (are) required, the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If DPRLP concludes that Corrective Action is not required, the report shall explain the basis for that conclusion;

(f) Identification of possible Root Causes, where available, of AG Flaring Incidents which DPRLP believes should not be considered Malfunctions. Such identified Root Causes for AG Flaring shall be added to the list of agreed upon non-malfunctions, identified in Paragraph 130 (a)(1); and

(g) Identification of all periods of time for which records are not available or inadequate for determining the cause of past AG Flaring Incidents, with a description of the search undertaken to locate such records, and an explanation for the unavailability of such records.

115. Upon the completion of the corrective actions identified in the Past Flaring Incident Analysis Report, DPRLP shall certify to EPA Region 6, and the appropriate State office, that it has completed any and all corrective actions identified in the Past Flaring Incident Analysis Report.

F. FUTURE FLARING.

116. By no later than June 1, 2001, DPRLP shall implement procedures for evaluating whether future AG Flaring Incidents, HC Flaring Incidents, and Tail Gas Incidents are due to Malfunctions. The procedures require Root Cause Analysis and Corrective Action for all types of flaring, and stipulated penalties for AG Flaring Incidents or Tail Gas Incidents if the Root Causes were not due to Malfunctions. DPRLP shall comply with the Acid Gas Flaring requirements of this Part to the extent that the Acid Gas is generated by the refinery.

G. HYDROCARBON FLARING.

117 (a). DPRLP agrees for purposes of this Consent Decree that hydrocarbon flares identified at Paragraph 106(g) are subject to NSPS Subpart J as fuel gas combustion devices, in addition to being emergency control devices for quick and safe release of malfunction gases.

117 (b). DPRLP shall comply with 40 C.F.R. §60.11(d) to ensure NSPS compliance at all refinery flares with the NSPS obligation to implement good air pollution control practices to minimize flaring activity.

118. DPRLP's HC Flares which are not equipped with flare gas recovery systems, and which are affected facilities, shall meet the emission limitation, monitoring or other requirements for refinery fuel gas found in 40 C.F.R. §§ 60.104 and 60.105 or

alternative monitoring protocols approved pursuant to 40 C.F.R. § 60.13(i) by no later than December 31, 2003.

119 (a). By no later than December 31, 2001, DPRLP shall submit a plan for addressing HC Flaring at its refinery. The plan shall identify waste streams and HC Flaring Devices and shall select one of the options set forth below for each HC Flaring Device. DPRLP shall implement the selected option at its refinery for each HC Flaring Device by no later than December 31, 2003 or such other date that EPA may approve:

(i) Installation, operation and maintenance of flare gas recovery systems;

(ii) Re-routing of hydrocarbon streams away from any HC Flaring Devices during the first turnaround of the applicable process units following 6-months from the date of lodging of this Consent Decree, but no later than December 31, 2003 or such other date that EPA may approve; or

(iii)Monitoring of hydrocarbon streams for compliance with NSPS 40 C.F.R. §60.104(a)(1) if DPRLP chooses to continue to route hydrocarbon streams to any HC Flaring Device.

119 (b). For HC Flaring Incidents, DPRLP shall follow the Investigation and Reporting, and Corrective Action procedures in Paragraphs 121-126.

H. <u>TAIL GAS INCIDENTS</u>.

120. For Tail Gas Incidents, DPRLP shall follow the Investigation and Reporting, Corrective Action and Stipulated Penalty procedures as outlined in Paragraphs 121 for AG Flaring. Those procedures shall be applied to TGTU shutdowns, bypasses of a TGTU, unscheduled shutdowns of a SRP or other miscellaneous

unscheduled SRP events which results in a Tail Gas Incident, with the exceptions that the provisions of Paragraph 135 would not apply to a Tail Gas Incident, and Tail Gas Incidents would not be counted in the tally of AG Flaring Incidents under Paragraph 128.

I. REQUIREMENTS RELATED TO ALL FLARING.

121. INVESTIGATION AND REPORTING. No later than thirty (30) days following the end of an AG Flaring Incident, Tail Gas Incident, or HC Flaring Incident (hereinafter, "Flaring Incident"), DPRLP shall submit a report to the applicable EPA Regional Office and applicable State Agency that sets forth the following:

(a) The date and time that the Flaring Incident started and ended. To the extent that the Flaring Incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, DPRLP 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 DPRLP took to limit the duration and/or quantity of SO2 emissions associated with the Flaring Incident;

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

(e) An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of a 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, operational, and maintenance changes shall be evaluated. If DPRLP concludes that corrective action(s) is (are) required under Paragraph 122 (a), the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If DPRLP concludes that corrective action is not required under Paragraph 122(a), the report shall explain the basis for that conclusion;

(f) A statement that:

(1) Specifically identifies each of the grounds for stipulated penalties in Paragraphs 127 and 128 of this Decree and describes whether or not the AG Flaring Incident falls under any of those grounds;

(2) Describes which Paragraph 130(a) or 130(b) applies, and why, if a Flaring Incident falls under Paragraph 130 of this Decree;

(3) States whether or not DPRLP asserts a defense to the Flaring Incident and if so, a description of the defense if a Flaring Incident falls under either Paragraph 128 or Paragraph 130(b);

(4) 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 Paragraph 121 will be submitted; provided, however, that if DPRLP has not submitted a report or a series of reports containing the information required to be submitted under this Paragraph within 45 days (or such additional time as EPA may allow) after the due date for the initial report for the Flaring Incident, the stipulated penalty provisions of Paragraph 145(e) shall apply, but DPRLP shall retain the right to dispute, under Part XVI (Dispute Resolution) of this Consent Decree, any demand for stipulated penalties that was issued as a result of DPRLP's failure to submit the report required under this Paragraph within the time frame set forth. Nothing

in this Paragraph shall be deemed to excuse DPRLP from its investigation, reporting, and corrective action obligations under this Part for any Flaring Incident, which occurs after a subject Flaring Incident for which DPRLP has requested an extension of time under this Paragraph.

(5) To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, then, by no later than 30 days after completion of the implementation of corrective action(s), DPRLP shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

J. CORRECTIVE ACTION.

122(a). In response to any Flaring Incident, DPRLP, as expeditiously as practicable, shall take 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 Flaring Incident. If the Root Cause is identified as a process problem isolated within an SRP, then DPRLP shall perform, as an aspect of its corrective action, an Optimization Study of the affected SRP pursuant to Paragraph 112 of this Consent Decree and implement the results of that Optimization Study.

122(b). DPRLP shall comply with the AG Flaring requirements of this Part to the extent that the Acid Gas is generated by DPRLP.

123. If EPA does not notify DPRLP in writing within sixty (60) days of receipt of the report(s) required by Paragraph 121

that it objects to one or more aspects of DPRLP's proposed corrective action(s), if any, and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of DPRLP's compliance with Paragraph 122 (a) of this Consent Decree.

124. EPA does not, however, by its agreement to the entry of this Consent Decree or by its failure to object to any corrective action that DPRLP may take in the future, warrant or aver in any manner that any of DPRLP's corrective actions in the future will result in compliance with the provisions of the Clean Air Act or its implementing regulations. Notwithstanding EPA's review of any plans, reports, corrective measures or procedures under this Section, DPRLP shall remain solely responsible for compliance with the Clean Air Act and its implementing regulations.

125. If EPA does object, in whole or in part, to DPRLP's proposed corrective action(s) and/or its schedule(s) of implementation, or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify DPRLP of that fact within sixty (60) days following receipt of the report(s) required by Paragraph 121 above. If DPRLP and EPA cannot agree within thirty (30) days on the appropriate corrective action(s), if any, to be taken in response to a particular AG Flaring Incident, either Party may invoke the Dispute Resolution

provisions of Part XVI of this Decree.

126. Nothing in this Part shall be construed as a waiver of EPA's rights under the Act and its regulations for future violations of the Act or its regulations nor to limit DPRLP's right to take such corrective actions as it deems necessary and appropriate immediately following an AG Flaring Incident or in the period during preparation and review of any reports required under this Part.

K. AG FLARING AND TAIL GAS INCIDENTS AND STIPULATED PENALTIES.

127. Stipulated Penalties. The stipulated penalty provisions of Paragraph 135 shall apply to any AG Flaring or Tail Gas Incident for which the Root Cause was one or more or the following acts, omissions, or events. Except for a Force Majeure event, DPRLP shall have no defenses to demand for stipulated penalties for a AG Flaring or Tail Gas Incident falling under this Paragraph:

(a) Error resulting from careless operation by the personnel charged with the responsibility for the SRPs, TGTUs, or Upstream Process Units; and/or

(b) A failure of equipment that is due to a failure by DPRLP to operate and maintain that equipment in a manner consistent with good engineering practice.

128. The stipulated penalty provisions of Paragraph 135 (a) shall apply to any AG Flaring or Tail Gas Incident that either:

(a) Results in emissions of sulfur dioxide at a rate of greater than twenty (20) pounds per hour continuously

for three (3) consecutive hours or more; or

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

129. Defenses. In response to a demand by EPA for stipulated penalties, DPRLP shall be entitled to assert a Malfunction defense with respect to any AG Flaring or Tail Gas Incident falling under Paragraph 128. In the event that a dispute arising under Paragraph 128 is brought to the Court pursuant to the Dispute Resolution provisions of this Decree, nothing in this Paragraph is intended or shall be construed to deprive DPRLP of its view that Startup, Shutdown, and upset defenses are available for AG Flaring or Tail Gas Incidents, nor to deprive EPA of its view that such defenses are not available. In the event that an AG Flaring or Tail Gas Incidents fall under both Paragraph 127 and 128, then 127 shall apply.

130. With respect to any AG Flaring or Tail Gas Incidents other than those identified in Paragraphs 127 and 128, the following provisions apply:

(a) First Time: If the Root Cause of the AG Flaring or Tail Gas Incident was not a recurrence of the same Root Cause that resulted in a previous AG Flaring or Tail Gas Incident that occurred since the effective date of this Decree for the refinery;

(1) If the Root Cause of the AG Flaring or Tail Gas 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 AG Flaring or Tail Gas Incidents;

(2) If the Root Cause of the AG Flaring or Tail Gas Incident was not sudden and infrequent, and was reasonably preventable through the exercise of good engineering practice, then DPRLP shall implement corrective action(s) pursuant to Paragraphs 122 - 126;

(b) Recurrence: If the Root Cause is a recurrence of the same Root Cause that resulted in a previous AG Flaring or Tail Gas Incident that occurred since the Effective Date of this Consent Decree, then DPRLP shall be liable for stipulated penalties under Paragraph 135 of this Decree unless:

(1) the AG Flaring or Tail Gas Incident resulted from a Malfunction,

(2) the Root Cause previously was designated as an agreed-upon malfunction under Paragraph 130(a)(1), or

(3) the AG Flaring or Gas Incident was a recurrence of an event that DPRLP had previously developed a corrective action plan for and for which it had not yet completed implementation.

(c) Provided, however, that in the event that a dispute arising under Paragraph 130(b) is brought to the Court pursuant to the Dispute Resolution provisions of this Decree, nothing in this Paragraph is intended or shall be construed to deprive DPRLP of its view that Startup, Shutdown, and Malfunction upset defenses are available for AG Flaring or Tail Gas Incidents, nor to deprive the United States of its view that such defenses are not available.

(d) Other than for a Malfunction or Force Majeure, if no AG Flaring or Tail Gas Incident occurs for a rolling 36 month period following lodging of this Consent Decree, then the stipulated penalty provisions of Paragraph 135 no longer apply. EPA may elect to reinstate the stipulated penalty provision if DPRLP has a flaring event which would otherwise be subject to stipulated penalties. EPA's decision to reinstate the stipulated penalty provision shall not be subject to dispute resolution. Once reinstated, the stipulated penalty

provision shall continue for the remaining life of this Consent Decree.

L. MISCELLANEOUS.

131. Calculation of the Quantity of Sulfur Dioxide Emissions resulting from AG or HC Flaring: For purposes of this Consent Decree, the quantity of SO2 emissions resulting from AG or HC Flaring Incidents shall be calculated by the following formula:

Tons of SO2 = [FR][TD][ConcH2S][8.44 x 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.) For purposes of determining the occurrence of, or the total quantity of SO2 emissions resulting from, an AG or HC Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO2 emitted shall be equal to the sum of the quantities of SO2 flared during each such period of intermittent AG Flaring.

132(a). 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][ConcH2S][0.169].

The emission rate shall be rounded to one decimal point. (Thus,

for example, for a calculation that results in an emission rate of 19.95 pounds of SO2 per hour, the emission rate shall be rounded to 20.0 pounds of SO2 per hour; for a calculation that results in an emission rate of 20.05 pounds of SO2 per hour, the emission rate shall be rounded to 20.1.)

132(b) Meaning of Variables and Derivation of Multipliers used in the Equations in Paragraphs 131 and 132(a):

ER = Emission Rate in pounds of Sulfur Dioxide 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 x 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 the AG or HC Flaring Device(s) ("FR") shall be as measured by the relevant flow meter. Hydrogen sulfide concentration ("ConcH2S") shall be determined from the SRP feed gas analyzer. In the event that either of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under Paragraph 121 shall include the data used in the calculation and an explanation of the basis for any estimates of

missing data points.

133. Calculation of the Quantity of SO2 Emissions resulting from a Tail Gas Incident. . For the purposes of this Consent Decree, the quantity of SO2 emissions resulting from a Tail Gas Incident shall be calculated by one of the following methods, based on the type of event:

(a) If the Tail Gas Incident is combusted in a flare the SO2 emissions are calculated using the methods outlined in Paragraph 131 above, or

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

ER_{TGI} = [$FR_{Inc.}$] [Conc. SO2 - 250] [0.169 x 10^{-6}] [TD_{TGI}]

Where:

ER_{TGI} = Emissions from Tail Gas at the SRP incinerator, SO2 lbs. over a 24 hour period

$FR_{Inc.}$ = Incinerator Exhaust Gas Flow Rate (standard cubic feet per hour) (actual stack monitor data or engineering estimate based on the acid gas feed rate to the SRP)

Conc. SO2 = Actual SO2 concentration (CEM data) in the incinerator exhaust gas, ppmvd at 0% O2 and average over 24 hour.

0.169 x 10^{-6} = [1b mole of SO2 / 379 SO2] [64 lbs SO2 / 1b mole SO2] [1x 10^{-6}]

TD_{TGI} = Total duration (hours) when the Incinerator CEM was exceeding 250 ppmvd at 0% O2 on a rolling twelve hour average, in a 24 hour period.

In the event the Conc. SO2. data point is inaccurate or not

available or a flow meter for FR_{Inc}, does not exist or is inoperable, then estimates will be used based on best engineering judgement.

134. Any disputes under the provisions of this Part shall be resolved in accordance with the Part XVI (Dispute Resolution) of this Decree.

M. STIPULATED PENALTIES UNDER THIS PART.

135. DPRLP shall be liable for the following stipulated penalties for violations of the requirements of this Part. For each violation, the amounts identified below apply on the first day of violation, are calculated for each incremental period of violation (or portion thereof):

(a) AG Flaring and Tail Gas Incidents for which DPRLP is liable under Paragraphs 127, 128, and 130(b). Nothing in this Part shall be understood to subject DPRLP to stipulated penalties for HC Flaring Incidents.

Tons Emitted in AG Flaring or Tail Gas Incidents	Length of Time from Commencement of Flaring within the AG Flaring or Tail Gas Incidents to Termination of Flaring within the AG Flaring or Tail Gas Incidents is 3 hours or less	Length of Time from Commencement of Flaring within the AG Flaring or Tail Gas Incidents to Termination of Flaring within the AG Flaring or Tail Gas Incidents is greater than 3 hours but less than or equal to 24 hours	Length of Time of Flaring within the AG Flaring or Tail Gas Incidents 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, $27,500 in any one calendar day
Greater than 15 Tons	$1,800 per Ton, up to, but not exceeding, $27,500 in any one calendar day	$2,300 per Ton, up to, but not exceeding, $27,500 in any one calendar day	$27,500 per calendar day for each calendar day over which the AG Flaring or Tail Gas Incident lasts

(1) 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

$1200)].

(2) For purposes of determining which column in the table set forth in this SubParagraph applies under circumstances in which AG Flaring occurs intermittently during AG Flaring or Tail Gas Incidents, the AG Flaring shall be deemed to commence at the time that the AG Flaring or Tail Gas Incidents that trigger the initiation of a AG Flaring or Tail Gas Incidents commence, and shall be deemed to terminate at the time of the termination of the last episode of AG Flaring within the AG Flaring or Tail Gas Incidents. Thus, for example, for AG Flaring within an AG Flaring Incident that (i) starts at 1:00 p.m. on Day 1 and ends at 1:30 p.m. on Day 1; (ii) recommences at 4:00 p.m. on Day 1 and ends at 4:30 p.m. on Day 1; (iii) recommences at 1:00 a.m. on Day 2 and ends at 1:30 a.m. on Day 2; and (iv) no further 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) Failure to timely submit any report required by this Part, or for submitting any report that does not conform to the requirements of this Part:

$5,000 per week, per report.

(c) For those corrective action(s) which DPRLP is required to undertake following Dispute Resolution, then, from the 91st day after EPA's receipt of DPRLP's report under Paragraphs 114 and 121 of this Decree until the date that either (i) a final agreement is reached between EPA and DPRLP regarding the corrective action or (ii) a court order regarding the corrective action is entered:

$5,000 per month

(d) Failure to complete any corrective action under Paragraph 114(e) and 122 (a) of this Decree in accordance with the schedule for such corrective action agreed to by DPRLP or imposed on DPRLP pursuant to the Dispute Resolution provisions of this Decree (with any such extensions thereto as to which EPA and DPRLP may agree in writing):

$5,000 per week

N. Certification.

136. All notices, reports or any other submissions required of DPRLP by this Part shall contain the following certification:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and that I have made a diligent inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

137. The reporting requirements set forth in this Part do not relieve DPRLP of its obligation to any State, local authority, or EPA to submit any other reports or information required by the CAA, or by any other state, federal or local requirements.

XI. PERMITTING

138. Construction. DPRLP agrees to apply for and make all reasonable efforts to obtain in a timely manner all appropriate federally enforceable permits (or construction permit waivers) for the construction of the pollution control technology required to meet the above pollution reductions.

139. Operation. As soon as practicable, but in no event later than 60 days following a final determination of concentration limits, DPRLP shall apply for and make all

reasonable efforts to incorporate the concentration limits required by this Consent Decree into New Source Review ("NSR") and other applicable, federally enforceable, permits for this facility.

140. NSPS Applicability. DPRLP shall apply to incorporate NSPS applicability into the relevant permits.

XII. GENERAL RECORDKEEPING, RECORD RETENTION AND REPORTING

141. DPRLP shall retain all records required to be maintained in accordance with this Consent Decree for a period of five (5) years unless other regulations require the records to be maintained longer.

142. Beginning with the first full calendar quarter after entry of this Consent Decree, DPRLP shall submit a calendar quarterly progress report ("calendar quarterly report") to EPA within 30 days after the end of each calendar quarter during the life of this Consent Decree. In addition to any other information specifically required to be submitted per other Sections of this Consent Decree, this report shall contain the following:

(a) progress report on the implementation of the requirements of Parts IV - XI (Compliance Programs) above;

(b) a summary of all HC Flaring Incidents;

(c) a summary of the emissions data as required by Parts IV-VI, of this Consent Decree for the calendar quarter; and

(d) a description of any problems anticipated with respect to meeting the Compliance Programs of Parts IV - XI of this Consent Decree.

143. The calendar quarterly report shall be certified by a refinery manager or company official responsible for environmental management and compliance at the refinery covered by the report, 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."

XIII. STIPULATED PENALTIES

144. DPRLP shall pay stipulated penalties to the United States, for each failure by the Company to comply with the terms of this Consent Decree; provided, however, that the United States may elect to bring an action for contempt in lieu of seeking stipulated penalties for violations of this Consent Decree.

145. For each violation, the amounts identified below shall apply on the first day of violation, shall be calculated for each incremental period of violation (or portion thereof), and shall be doubled beginning on the fourth consecutive, continuing period of violation, except such doubling shall not apply to

Subparagraphs (f), (g), and (h). In the alternative, at the option of the United States, stipulated penalties shall equal 1.2 times the economic benefit of DPRLP's delayed compliance, if this amount is higher than the amount calculated under this Paragraph. In addition and for purposes of assessing stipulated penalties for a failure to comply with a concentration-based, rolling average emission limit established under Section IV.C, or V.E an actionable violation will occur when there is noncompliance with such limit for 5% or more of each such unit's operating time during any calendar quarter.

(a) Requirements for NOX emission reductions from the FCCU (Part IV):

(i) Failure to install SCR, as required by Section A: $100,000 per quarter

(ii) If applicable, failure to conduct SCR Optimization Study, as required by Section B: $30,000 per month

(iii) Failure to install, calibrate, maintain and operate properly CEMS, as required by Section D: $2,500 per month per CEMS;

(iv) Failure to comply with emission limits, as required by Section C: $1,500 per day per emission limit per emission point

(b) Requirements for SO2 emission reductions from FCCU (Part V):

(i) Failure to comply with emission limits, as required by Section B: $1,500 per day per emission limit per emission point

(ii) Failure to install wet gas scrubbers (WGS),

as required by Section A: $100,000 per quarter

(iii) Failure to install, calibrate, maintain and operate properly CEMS, as required by Section B: $2,500 per month per CEMS;

(c) Requirements for Benzene Waste NESHAP program enhancements (Part VIII):

(i) Failure to timely conduct initial audit, as required by Section C, or other audits, as required by Section D, E or H: $5,000 per month per audit

(ii) Failure to timely sample, as required by Section L: $5,000 per week or $30,000 per quarter, per stream (whichever amount is greater, but not to exceed $150,000)

(iii) Failure to timely install secondary carbon canisters or water scrubbers, as required by Section F: $5,000 per week per canister or scrubber

(iv) Failure to timely replace carbon canisters, as required by Section F: $1,000 per day per canister

(v) Failure to monitor for breakthrough, as required by Section F: $1,000 per week per canister

(vi) Failure to perform monitoring, as required by Section M: $500 per monitoring event

(vii) Failure to develop and timely implement training program or to establish standard operating procedures, as required by Section J: $10,000 per quarter

(viii) Failure to mark segregated stormwater drains, as required by Section M: $1,000 per week per drain

(ix) Failure to meet the requirements of Sections G, I, and K: $500 per week per section

(x) Failure to timely submit complete reports under this Part: $1,000 per week per report

(xi) Following the audit and development of the Compliance Plan, if it is discovered by an EPA or state investigator or inspector, or their agent, that DPRLP failed to include all benzene waste streams in its TAB, for each waste stream that is:

less than 0.03 Mg/yr - $500
between 0.03 and 0.1 Mg/yr - $1500
between 0.1 and 0.5 Mg/yr - $6000
greater than 0.5 Mg/yr - $12,000

(d) Requirements for Leak Detection and Repair program enhancements (Part IX):

(i) Failure to have a written LDAR program, as required by Section A: $3,000 per week

(ii) Failure to timely develop training program, as required by Section B: $10,000 per month

(iii) Failure to timely conduct internal or external audit, as required by Section C: $5,000 per month per audit

(iv) Failure to timely implement internal leak definition, as required by Section D and E: $10,000 per month per process unit

(v) Failure to develop and timely implement first attempt at repair program, as required by Section F: $10,000 per month

(vi) Failure to implement and begin more frequent monitoring program, as required by Section G: $10,000 per month per process unit

(vii) Failure to timely monitor, as required by Section G: $5,000 per week per process unit

(viii) Failure to have dataloggers and electronic storage, as required by Section H: $5,000 per month

(ix) Failure to implement subcontractor

requirements (if required) under this Part: $5,000 per month

(x) Failure to timely establish LDAR accountability, as required by Section J: $5,000 per month

(xi) Failure to conduct calibration drift assessment or to remonitor components (if and as required), as required by Section M: $100 per day

(xii) Failure to attempt to minimize a component being placed or continuing to be on the "delay of repair" list, as required by Section N: $5,000 per component

(xiii) Failure to timely submit reports required under this Part: $1,000 per week per report

(xiv) Following the audit and development of the Compliance Plan, if it is discovered by an EPA or state investigator or inspector, or their agent, that DPRLP failed to include all required components in its LDAR program: $250 per component

(e) Requirements Applicable to SRPs and Flaring:

(i) Failure to comply with emission limits identified or referred to in Section C:

Number of rolling 12-hr average exceedances within calendar day	Penalty per rolling 12-hr average exceedance
1-12	$ 350
Over 12	$ 750

(ii) Operation of the SRP during scheduled maintenance of its associated TGTU: $25,000 per SRP per day

(iii) Failure to address sulfur-pit emissions, as required by Section C: $5,000 per quarter per sulfur-pit

(iv) Failure to conduct an SRP Optimization Study, as required by Section D and the corrective

action provisions of Section J, or to implement such Study's recommendations: $5,000 per month per SRP

(v) Failure to submit a timely, complete report, as required by Section E, or develop procedures as required by Section F: $1,000 per week per report

(vi) Failure to timely implement the selected option(s) identified in Section G: $1,000 per day

(f) Requirements for Permitting (Part XI):

Failure to timely submit a complete permit application: $1,000 per week per unit

(g) Requirements for Reporting and Recordkeeping (Part XII):

Failure to timely submit a report required under Part XI: $1,000 per week per report

(h) Failure to escrow stipulated penalties, as required by this Part: $10,000 per week per penalty

(i) Failure to meet the milestones for RCRA compliance and/or to comply with any RCRA requirement (Part VII): $2,500 per week

146. DPRLP shall pay such stipulated penalties only upon written demand by the United States no later than thirty (30) days after the Company receives such demand. Such payment shall be made to the United States as follows: DPRLP shall pay the civil penalties by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing the USAO File Number and DOJ Case Number 90-5-2-1-07209, and the civil action case name and case

number of the Southern District of Texas. The costs of such EFT shall be DPRLP's responsibility. Payment shall be made in accordance with instructions provided to DPRLP by the Financial Litigation Unit of the U.S. Attorney's Office in the Southern District of Texas. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. DPRLP shall provide notice of payment, referencing the USAO File Number and DOJ Case Number 90-5-2-1-07209, and the civil action case name and case number, to the Department of Justice and to EPA, as provided in Paragraph 181 (Notice).

147. Should DPRLP dispute its obligation to pay part or all of a stipulated penalty, it may avoid the imposition of the stipulated penalty for failure to pay a penalty due to the United States, by placing the disputed amount demanded by the United States, not to exceed $50,500 for any given event or related series of events, in a commercial escrow account pending resolution of the matter and by invoking the Dispute Resolution provisions of Part XVI within the time provided in this Paragraph for payment of stipulated penalties. If the dispute is thereafter resolved in DPRLP's favor, the escrowed amount plus accrued interest shall be returned to DPRLP, otherwise the United States shall be entitled to the escrowed amount that was determined to be due by the Court plus the interest that has accrued on such amount, with the balance, if any, returned to DPRLP.

148. The United States reserves the right to pursue any other remedies to which they are entitled, including, but not limited to, additional injunctive relief for the DPRLP's violations of this Consent Decree. Nothing in this Consent Decree shall prevent the United States from pursuing a contempt action against DPRLP and requesting that the Court order specific performance of the terms of the Decree.

149. Election of Remedy. The United States will not seek both stipulated penalties and civil penalties for the same actions or occurrences as those constituting a violation of the Consent Decree.

XIV. RIGHT OF ENTRY

150. Any authorized representative of the EPA or the appropriate state agency, including independent contractors, upon presentation of credentials, shall have a right of entry upon the premises of the DPRLP refinery at any reasonable time for the purpose of monitoring compliance with the provisions of this Consent Decree, including inspecting plant equipment, and inspecting and copying all records maintained by DPRLP required by this Consent Decree. Nothing in this Consent Decree shall limit the authority of EPA to conduct tests and inspections under Section 114 of the Act, 42 U.S.C. § 7414, or any other statutory and regulatory provision.

XV. FORCE MAJEURE

151. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, DPRLP shall notify the United States in writing as soon as practicable, but in any event within twenty (20) business days of when DPRLP first knew of the event or should have known of the event by the exercise of due diligence. In this notice DPRLP shall specifically reference this Paragraph of this Consent Decree 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 DPRLP to prevent or minimize the delay and the schedule by which those measures will be implemented. DPRLP shall adopt all reasonable measures to avoid or minimize such delays.

152. Failure by DPRLP to comply with the notice requirements of Paragraph 151 as specified above shall render this Part voidable by the United States as to the specific event for which DPRLP has failed to comply with such notice requirement, and, if voided, it shall be of no effect as to the particular event involved.

153. The United States shall notify DPRLP in writing regarding their claim of a delay or impediment to performance within twenty (20) business days of receipt of the Force Majeure notice provided under Paragraph 151.

154. If the United States agrees that the delay or impediment to performance has been or will be caused by circumstances beyond the control of DPRLP, including any entity controlled by them, and that they 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 this Consent Decree. DPRLP shall not be liable for stipulated penalties for the period of any such delay.

155. If the United States does not accept DPRLP's claim of a delay or impediment to performance, they must submit the matter to this Court for resolution to avoid payment of stipulated penalties, by filing a petition for determination with this Court. Once DPRLP has submitted this matter to this Court, the United States shall have twenty (20) business days to file its response to said petition. If DPRLP submits the matter to this Court for resolution and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of DPRLP, including any entity

controlled by them, and that they could not have prevented the delay by the exercise of due diligence, DPRLP 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.

156. DPRLP shall bear the burden of proving that any delay of any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond their control, including any entity controlled by them, and that they could not have prevented the delay by the exercise of due diligence. DPRLP 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.

157. Unanticipated or increased costs or expenses associated with the performance of DPRLP's obligations under this Consent Decree shall not constitute circumstances beyond their control, or serve as a basis for an extension of time under this Part.

158. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to any party as a result of DPRLP

delivering a notice of Force Majeure or the parties' inability to reach agreement.

159. 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 or approved by this Court. DPRLP shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

XVI. DISPUTE RESOLUTION

160. The dispute resolution procedure provided by this Part shall be available to resolve all disputes arising under this Consent Decree, except as otherwise provided in Part XV regarding Force Majeure, provided that the party making such application has made a good faith attempt to resolve the matter with the other party.

161. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the parties to this Consent Decree to another advising of a dispute pursuant to this Part. The notice shall describe the nature of the dispute, and shall state the noticing party's position with regard to such dispute. The party or parties receiving such a

notice shall acknowledge receipt of the notice and the parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days from the receipt of such notice.

162. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting between representatives of the United States and DPRLP, unless the parties' representatives agree to shorten or extend this period.

163. In the event that the parties are unable to reach agreement during such informal negotiation period, the United States shall provide DPRLP with a written summary of its position regarding the dispute. The position advanced by the United States shall be considered binding unless, within thirty (30) calendar days of DPRLP's receipt of the written summary of the United States position, DPRLP files with this Court a petition which describes the nature of the dispute.

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

165. Notwithstanding any other provision of this Consent

Decree, in dispute resolution, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of invocation of this Part or the parties' inability to reach agreement.

166. In resolving the dispute between the parties, the position of the United States shall be upheld if supported by substantial evidence in the record of decision of the matter.

167. As part of the resolution of any dispute submitted to dispute resolution, the parties by agreement or this Court by order, in appropriate circumstances, may 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. DPRLP shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

XVII. EFFECT OF SETTLEMENT

168. This Consent Decree constitutes full settlement of and shall resolve all civil liability of DPRLP to the United States for the violations alleged in the United States' Complaints and all civil liability of DPRLP for any violations at the refinery based on events that occurred during the relevant time period under the following statutory and regulatory provisions: the New Source Performance Standards ("NSPS"), 40 C.F.R. Part 60, Subpart J for FCCU regenerator located at the facility and as per the

schedule set out in Paragraph 23, SRPs, and flares listed in Paragraph 106(g), and the relevant state and local regulations which incorporate and/or implement the above-listed federal regulations. For purposes of this Paragraph, the "relevant time period" shall mean the period beginning when the United States' claims under the statutes and regulations identified in this Paragraph accrued, through the date of entry of the Consent Decree.

169(a). NSPS Subpart A and J Audits. DPRLP's complete performance of the pre-1973 flare audits pursuant to Paragraph 107(a), and/or submission of notifications of compliance with respect to pre-1973 flares, constitutes full settlement of and shall resolve all past civil liability of DPRLP to the United States for those flares for which DPRLP accepts applicability under NSPS Subpart J, through the date of the demonstrated or certified compliance.

169(b). Benzene Waste and LDAR Audits. DPRLP's complete performance of the audits and submission of its certification of compliance pursuant to Parts VIII and IX constitutes full settlement of and shall resolve all civil liability of DPRLP to the United States for any violations at the refinery based on events that occurred during the relevant time period under the following statutory and regulatory provisions, and those violations which DPRLP self-discloses as a result of its audits:

Leak Detection and Repair ("LDAR"), 40 C.F.R. Part 60, Subparts VV and GGG, and 40 C.F.R. Part 63, Subparts F, H, and CC; and National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Benzene, 40 C.F.R. Part 61, Subparts FF, J and V pursuant to Section 112(d) of the Act. For purposes of this Paragraph, the "relevant time period" shall mean the period beginning when the United States' claims under the statutes and regulations identified in this Paragraph accrued through the date of lodging of this Consent Decree.

170. This Consent Decree shall resolve all civil liability under the Prevention of Significant Deterioration ("PSD") requirements at Part C of the Act, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the "PSD" rules), and the Plan Requirements for Non-Attainment Areas at Part D of the Act, and the regulations promulgated thereunder at 40 C.F.R. §§ 51.165(a) and (b), Part 51, Subpart S, and § 52.24, and the Texas regulations which incorporate and/or implement those rules, for any increase in SO2, PM, PM10, and NOx emissions resulting from DPRLP's construction, modification, or operation of the FCCUs occurring prior to lodging of this Consent Decree.

171. During the life of this Consent Decree, the units described in Paragraph 170 shall be on a compliance schedule and any modification to these units, as defined in 40 C.F.R. § 52.21, which is not required by this Consent Decree is beyond the scope

of this release.

172. Other Issues. DPRLP's certification of completion of the injunctive requirements set forth in Part VII of this Consent Decree and EPA's concurrence shall constitute full settlement of and shall resolve all civil liability of DPRLP to the United States for the following specific violations at the refinery as identified during EPA's and TNRCC's joint multimedia inspection April 26-30, 1999, and as disclosed by DPRLP.

(1) RCRA Section 3005 (a) and 40 C.F.R. §§ 270.1 and 270.10, operating a hazardous waste storage unit without permit coverage or interim status as follows:

(i) failure to obtain a standard treatment, storage or disposal ("TSD") permit prior to storing and treating hazardous wastewater that contained refinery process wastewater, which generated a listed hazardous waste, petroleum refinery primary oil/water/solids separation sludge (F037) in a surface impoundment in violation of 30 TAC 335.2 and 40 C.F.R. §§ 270.1 and 270.10.

(2) RCRA § 3005(a) and 40 C.F.R. § 270.1 and 270.10, operating a hazardous waste storage unit without permit coverage or interim status as follows:

(i) failure to obtain a standard treatment, storage or disposal ("TSD") permit prior to storing and treating refinery

process water or wastewater that generated a listed hazardous waste, petroleum refinery oil/water/solid separator sludge ("F037") surface impoundment in violation of 30 TAC § 335.2 and 40 C.F.R. §§ 270.1 and 270.10.

(3) DPRLP RCRA Permit Violations:

(i) exceeded the height of the dike located on the perimeter of the landfill cell #2 in violation of Permit No. HW-50099-001, Section III.D.10; and

(ii) allowed the leachate level to rise in excess of twelve inches in depth above the liner, and failed to analyze the leachate in violation of Permit No. HW-50099-001, Section III.D.10.g and h.

XVIII. GENERAL PROVISIONS

173. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve DPRLP of its obligation to comply with all applicable federal, state and local laws and regulations. Subject to Paragraph 152 (Election of Remedy), nothing contained in this Consent Decree shall be construed to prevent, alter or limit the ability of the United States' rights to seek or obtain other remedies or sanctions available under other federal, state or local statutes or regulations, by virtue of DPRLP's violation of this Consent Decree or of the statutes and regulations applicable to violations of this Consent Decree. This shall include the United

States' right to invoke the authority of the Court to order DPRLP's compliance with this Consent Decree in a subsequent contempt action.

174. Third Parties. This Consent Decree does not limit, enlarge or affect the rights of any party to this Consent Decree as against any third parties.

175. Costs. The United States and DPRLP shall each bear their own costs and attorneys' fees.

176. Public Documents. All information and documents submitted by DPRLP to the United States pursuant to this Consent Decree shall be subject to public inspection, unless subject to legal privileges or protection or identified and supported as business confidential by DPRLP in accordance with 40 C.F.R. Part 2, or any equivalent state statutes and regulations.

177. Public Comments. The parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the requirements of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and consideration of any comments.

178. Notice. Unless otherwise provided herein, notifications to or communications with the United States or DPRLP shall be deemed submitted on the date they are postmarked and sent either by overnight receipt mail service or by certified

or registered mail, return receipt requested. When DPRLP is required to submit notices or communicate in writing under this Consent Decree to EPA relating to the Deer Park refinery, DPRLP shall also submit a copy of that notice or other writing to the TNRCC. Except as otherwise provided herein, when written notification or communication is required by this Consent Decree, it 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

United States Attorney
Southern District of Texas
c/o U.S. Marshal Service
U.S. Courthouse
515 Rusk
Houston, Texas 77002

As to the U.S. Environmental Protection Agency:

Director
Air Enforcement Division (2242A)
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

With copies to:

EPA Region 6:

Chief

Air, Toxics, and Inspection Coordination Branch (6EN-A)
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202

As to DPRLP:

Stacy Methvin, President
Shell Deer Park Refining Company,
A Division of Shell Oil Products Company
5701 Highway 225, North Admin. #245
Deer Park, Texas 77536

As to the State of Texas:

Regional Manager
TNRCC - Region 10
3870 Eastex Fwy
Beaumont, TX 77703-1892
77703 1830

182. All EPA approvals or comments required under this Decree shall come from EPA, AED at the address listed in Paragraph 181.

180. 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.

181. 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.

182. This Consent Decree shall be binding upon all Parties

to this action, and their successors and assigns. The undersigned representative of each Party to this Consent Decree certifies that he or she is duly authorized by the Party whom he or she represents to enter into the terms and bind that Party to them.

183. Modification. This Consent Decree may be modified only by the written approval of the United States and DPRLP or by Order of the Court.

184. Continuing Jurisdiction. The Court retains jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Consent Decree, any party may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

185. This Consent Decree constitutes the entire agreement and settlement between the Parties.

XIX. TERMINATION

186. This Consent Decree shall be subject to termination upon motion by the United States, or DPRLP, after DPRLP satisfies all requirements of this Consent Decree. The requirements for termination include payment of all stipulated penalties that may be due to the United States under this Consent Decree,

installation of control technology systems as specified herein and the performance of all other Consent Decree requirements, the receipt of all permits specified herein, EPA's receipt of the first calendar quarterly progress report following the conclusion of DPRLP's operation for at least one year of all units in compliance with the emission limits established herein. At such time, if DPRLP believes that it is in compliance with the requirements of this Consent Decree and the permits specified herein and has paid any stipulated penalties required by this Consent Decree, then it shall so certify to the United States, and unless the United States objects in writing with specific reasons within 120 days of receipt of the certification, the Court shall order that this Consent Decree be terminated on DPRLP's motion. If the United States objects to DPRLP's certification, then the matter shall be submitted to the Court for resolution under Part XIII (Dispute Resolution) of this Consent Decree. In such case, DPRLP shall bear the burden of proving that this Consent Decree should be terminated.

So entered in accordance with the foregoing this_____day of _____, 200__.

_____

United States District Court Judge

for the Southern District of Texas

FOR PLAINTIFF, UNITED STATES OF AMERICA:

_____ Date_____

John Cruden,
Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
10th & Pennsylvania Avenue, N.W.
Washington, DC 20530

_____ Date_____

Dianne M. Shawley
Senior Counsel
Environment and Natural Resources Division
U.S. Department of Justice
1425 New York Avenue, N.W.
Washington, DC 20005

Mervyn Mosbacker
United States Attorney

By: _____

Gordon M. Speights Young
Assistant United States Attorney
Southern District of Texas
P.O. Box 61129
Houston, Texas 77208

FOR U.S. ENVIRONMENTAL PROTECTION AGENCY:

_____ Date _____

SYLVIA LOWRANCE
Acting Assistant Administrator
Office of Enforcement and Compliance
Assurance
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

ATTACHMENT 1
SCR DESIGN AND OPERATING CRITERIA
for DEER PARK

All air pollution control equipment designed pursuant to this attachment will be designed and built in accordance with regulatory requirements that may apply.

I. Selective Catalytic Reduction (SCR)

A. Design Considerations (required to be considered by Paragraph 10)

1. Catalyst

a. Type
b. Size/Pitch
c. Volume of Initial Charge
d. Catalyst Life
   i. Expected
   ii. Guaranteed
e. Periodic Mid-Run Replacement
f. Complete Change Out Schedule
g. Design space velocity (hr^{-1})

2. Reactor

a. Reactor Volume
b. Internal Configuration
c. Location in Process Train
d. Soot Blowers
e. Pressure Drop

3. Reductant Addition

a. Type (Anhydrous Ammonia, Aqueous Ammonia, or Urea)
b. Reductant Addition Rates
c. Diluent Type and Rate
d. CO Boiler Flow Distribution Manifold
e. Injection Grid / Nozzles
   i. Number
   ii. Size
   iii. Location
   iv. Controls
   v. Configuration
g. Ammonia Slip

4. Flue Gas Characteristics

a. Inlet/Outlet NOx Concentration
b. Flue Gas Volumetric Flow (scfm)
c. Inlet/Outlet Temperature Range
d. Inlet/Outlet SO_2/SO3 Concentrations
e. Inlet/Outlet CO/H2O/O2 Concentrations
g. Inlet/Outlet Particulate Loading and Characteristics

5. Efficiency

a. Designed to Outlet NOx Concentration
b. Designed to Efficiency

6. Safety Considerations

B. Operating Considerations (required to be considered by Paragraph 12)

1. Catalyst

a. Periodic Mid-Run Replacement to Maintain Efficiency
b. Complete Change Out

2. Reactor

a. Operation of Soot Blowers
b. Pressure Drop

3. Reductant Addition

a. Reductant Addition Rates
b. Ammonia Slip

4. Flue Gas Characteristics

a. Inlet/Outlet NOx Concentration
b. Flue Gas Volumetric Flow (scfm)
c. Inlet/Outlet Temperature Range
d. Inlet SO_2/SO3 Concentrations
e. Inlet H2O/O2 Concentrations
g. Inlet/Outlet Particulate Loading and Characteristics

5. Efficiency

a. Actual Outlet NOx Concentration
b. Actual Removal Efficiency