

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI**

UNITED STATES OF AMERICA,))	
)	
Plaintiff,)	
)	
and)	
)	
MISSISSIPPI COMMISSION ON))	Civil No.
ENVIRONMENTAL QUALITY))	
)	
WEST VIRGINIA DEPARTMENT OF))	
ENVIRONMENTAL PROTECTION))	
)	
Plaintiff-Intervenors,)	
)	
v.)	
)	
ERGON REFINING, INC.))	
)	
and)	
)	
ERGON-WEST VIRGINIA, INC.))	
)	
Defendants.)	
_____)	

CONSENT DECREE

TABLE OF CONTENTS

I. Jurisdiction and Venue (Paragraphs 1-3) 5

II. Applicability and Binding Effect (Paragraphs 4-8) 6

III. Objectives (Paragraph 9) 7

IV. Definitions (Paragraph 10) 7

V. Affirmative Relief/Environmental Projects 12

 11. NO_x Emissions Reductions from Heaters and Boilers 12

 12. SO₂ Emissions Reductions from and NSPS Applicability of Heaters and Boilers 15

 13. Good Operation and Maintenance 16

 14. NSPS Applicability of and Compliance for Flaring Devices 17

 15. Control of Acid Gas Flaring Incidents 18

 16. Hydrocarbon Flaring Incidents 27

 17. Benzene Waste NESHAP Program Enhancements 27

 18. Leak Detection and Repair Program Enhancements 45

 19. Incorporation of Consent Decree Requirements into Federally
 Enforceable Permits 56

 20. Obtaining Construction Permits 58

VI. Emission Credit Generation (Paragraph 21) 59

VII. Modifications to Implementation Schedules 61

 22. Securing Permits 61

 23. Commercial Unavailability of Control Equipment and/or Additives 62

VIII.	Other Enhanced Injunctive Relief, Environmentally Beneficial Projects, and Supplemental Environmental Projects	64
	24. Beneficial Environmental Projects	64
	25. Community SEPs	64
	26 - 27. General Provisions	66
IX.	Reporting and Recordkeeping (Paragraph 28)	67
X.	Civil Penalty (Paragraphs 29-31)	68
XI.	Stipulated Penalties (Paragraph 32)	69
	33. Paragraph 11 – Requirements for NO _x Emission Reductions from Heaters/Boilers	70
	34. Paragraph 12 – Requirements for SO ₂ Emission Reductions from Heaters/Boilers	71
	35. Paragraph 13 - Reserved	71
	36. Paragraph 14 – Requirements for NSPS Applicability of Flaring Devices	71
	37. Paragraph 15 – Requirements for Control of AG Flaring Incidents	72
	38. Paragraph 16 – Requirements for Control of HC Flaring Incidents	74
	39. Paragraph 17 – Requirements for Benzene Waste NESHAP Program	74
	40. Paragraph 18 – Requirements for Leak Detection and Repair Program Enhancements	76
	41. Paragraph 19 – Requirements to Incorporate CD Requirements into Federally-Enforceable Permits	79
	42. Paragraphs 24 and 25 – Requirements related to Environmentally Beneficial Projects and Requirements related to Supplemental Environmental Projects	79

43. Paragraph 28 – Requirements for Reporting and Recordkeeping	79
44. Paragraph 29 - Requirements for Payment of Civil Penalties	80
45. Paragraph 32 – Requirement to Escrow Stipulated Penalties	81
46. Payment of Stipulated Penalties	81
47. Stipulated Penalties Dispute	82
XII. Interest (Paragraph 48)	82
XIII. Right of Entry (Paragraph 49)	83
XIV. <u>Force Majeure</u> (Paragraphs 50-58)	83
XV. Retention of Jurisdiction/Dispute Resolution (Paragraphs 59-67)	86
XVI. Effect of Settlement (Paragraph 68)	88
XVII. General Provisions	95
69. Other Laws	95
70. Post-Permit Violations	95
71. Failure of Compliance	96
72. Service of Process	96
73. Post-Lodging/Pre-Entry Obligations	96
74. Costs	97
75. Public Documents	97
76. Public Notice and Comment	97
77. Notice	97

78. Approvals 100

79. Paperwork Reduction Act 100

80. Modification 101

XVIII. Termination (Paragraph 81) 101

XIX. Signatories (Paragraph 82) 104

TABLE OF APPENDICES

Appendix A Logic Diagram for Paragraph 15

Appendix B Summary of Reports, Plans and Certifications for the Benzene Waste
NESHAP Enhanced Program Provisions of Paragraph 17 of the
Consent Decree

Appendix C Summary of Reports, Plans and Certifications for the LDAR Enhanced
Program Provisions of Paragraph 18 of the Consent Decree

Appendix D EWV Administrative Compliance Order on Consent (No. CAA-03-
2003-0197DA); EWV Consent Agreement and Final Order (No.
CAA-03-2003-0196)

Appendix E Schedule and Statement of Work for Supplemental Environmental
Project(s)

CONSENT DECREE

WHEREAS, plaintiff, the United States of America (“Plaintiff” or “the United States”), by the authority of the Attorney General of the United States and through its undersigned counsel, acting at the request and on behalf of the United States Environmental Protection Agency (“EPA”), and plaintiff-intervenors the West Virginia Department of Environmental Protection (“WVDEP”) and the Mississippi Commission on Environmental Quality (“Commission”), an agency of the State of Mississippi, (“Plaintiff-Intervenors”), simultaneously have filed a Complaint and lodged this Consent Decree against Ergon-West Virginia, Inc. (“EWW”) and Ergon Refining, Inc. (“ERI”), for alleged environmental violations at EWW’s Newell, West Virginia refinery and ERI’s Vicksburg, Mississippi refinery;

WHEREAS, the United States alleges that EWW and ERI have violated and/or continue to violate the following statutory and regulatory provisions:

1) Prevention of Significant Deterioration (“PSD”) requirements found at Part C of Subchapter I of the Clean Air Act (the “Act”), 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the “PSD Rules”); and “Plan Requirements for Non-Attainment Areas” at Part D of Subchapter I of the Act, 42 U.S.C. §§ 7502-7503, and the regulations promulgated thereunder at 40 C.F.R. § 51.165(a) and (b) and at Title 40, Part 51, Appendix S, and at 40 C.F.R. § 52.24 (“PSD/NSR Regulations”), for heaters and boilers for NO_x and SO₂;

2) New Source Performance Standards (“NSPS”) found at 40 C.F.R. Part 60, Subparts A and J, under Section 111 of the Act, 42 U.S.C. § 7411 (“Refinery NSPS Regulations”), for fuel gas combustion devices;

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

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

WHEREAS, the States of West Virginia and Mississippi have sought to intervene in this matter alleging violations of their respective applicable State Implementation Plan (“SIP”) provisions and other state rules and regulations incorporating and implementing the foregoing federal requirements;

WHEREAS, EWV and ERI deny that they have violated and/or continue to violate the foregoing statutory, regulatory, SIP provisions and other state rules and regulations incorporating and implementing the foregoing federal requirements, and maintain that they have been and remain in compliance with all applicable statutes, regulations and permits and that they are not liable for civil penalties and injunctive relief as alleged in the Complaint;

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

WHEREAS, neither EWV nor ERI were the subject of an EPA investigation, inspection or enforcement program relating to the foregoing programs, but approached EPA and have agreed to participate in the Global Settlement Strategy;

WHEREAS, EWV and ERI consent to the simultaneous filing of the Complaint and lodging of this Consent Decree against them despite their denial of the allegations in the Complaint to accomplish the objective of cooperatively reconciling the goals of the United States, EWV, ERI and the States of West Virginia and Mississippi under the Clean Air Act and the corollary state statutes, and therefore agree to undertake the installation of air pollution control equipment and enhancements to its air pollution management practices at the Newell and Vicksburg Refineries to reduce air emissions by participating in the Global Settlement Strategy;

WHEREAS, the United States, West Virginia and Mississippi agree that the affirmative relief and environmental projects identified in Sections V and VIII of this Consent Decree will reduce annual emissions from the Covered Refineries by the following amounts: 1) nitrogen oxides by approximately 375 tons; 2) sulfur dioxide by approximately 513 tons; 3) volatile organic compounds by approximately 3 tons; and 4) PM compounds by approximately 10 tons.

WHEREAS, with respect to the provisions of paragraph 15 (“Control of Acid Gas Flaring Incidents”) of this Consent Decree, EPA maintains that “[i]t is the intent of the proposed standard [40 C.F.R. § 60.104] that hydrogen-sulfide-rich gases exiting the amine regenerator [or sour water stripper gases] be directed to an appropriate recovery facility, such as a Claus sulfur plant,” see Information for Proposed New Source Performance Standards: Asphalt Concrete Plants, Petroleum Refineries, Storage Vessels, Secondary Lead Smelters and Refineries, Brass or Bronze Ingot Production Plants, Iron and Steel Plants, Sewage Treatment Plants, Vol. 1, Main Text at 28;

WHEREAS, neither EWV nor ERI has a Claus Sulfur Plant;

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

WHEREAS, EPA recognizes that "Malfunctions," as defined in Paragraph 10 of this Consent Decree and 40 C.F.R. § 60.2, of the "Sulfur Recovery Plants" or of "Upstream Process Units" may result in flaring of "Acid Gas" or "Sour Water Stripper Gas" on occasion, as those terms are defined herein, and that such flaring does not violate 40 C.F.R. § 60.11(d) if the owner or operator, to the extent practicable, maintains and operates such units in a manner consistent with good air pollution control practices for minimizing emissions during these periods;

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

WHEREAS, EWV and ERI have waived any applicable federal or state requirements of statutory notice of the alleged violations;

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

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

NOW THEREFORE, with respect to the matters set forth in the complaint and in Section XVI of the Consent Decree (“Effect of Settlement”), and before the taking of any testimony, without adjudication of any issue of fact or law, and upon the consent and agreement of the Parties to the Consent Decree, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and over the Parties pursuant to 28 U.S.C. §§ 1331, 1345 and 1355. In addition, this Court has jurisdiction over the subject matter of this action pursuant to Sections 113(b) and 167 of the Clean Air Act, 42 U.S.C. §§ 7413(b) and 7477. The United States’ complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against EWV and ERI under the Clean Air Act. Authority to bring this suit is vested in the United States Department of Justice by 28 U.S.C. §§ 516 and 519, and Section 305 of the Clean Air Act, 42 U.S.C. § 7605.

2. Venue is proper in the Southern District of Mississippi pursuant to Section 113(b) of the Clean Air Act, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c), and 1395(a). EWV and ERI consent to the personal jurisdiction of this Court, waive any objections to venue in this District, and do not object to the intervention of West Virginia and Mississippi in this action.

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

II. APPLICABILITY AND BINDING EFFECT

4. The provisions of the Consent Decree shall apply to the Newell and Vicksburg Refineries. The provisions of the Consent Decree shall be binding upon the United States, the Plaintiff-Intervenors, EWV, ERI and their agents, successors, and assigns.

5. EWV and ERI agree not to contest the validity of the Consent Decree in any subsequent proceeding to implement or enforce its terms.

6. Effective from the Date of Entry of the Consent Decree until its termination, EWV and ERI agree that their respective refineries are covered by this Consent Decree. Effective from the Date of Lodging of the Consent Decree, EWV and ERI shall give written notice of the Consent Decree to any successors in interest prior to the transfer of ownership or operation of any portion of the Covered Refineries and shall provide a copy of the Consent Decree to any successor in interest. EWV or ERI, as applicable, shall notify the United States, and the Applicable State Agency in accordance with the notice provisions set forth in Paragraph 77 (Notice), of any successor in interest at least thirty (30) days prior to any such transfer.

7. EWV or ERI, as applicable, shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest (exclusive of any non-controlling non-operational shareholder interest) in their respective refineries upon the execution by the transferee of a modification to the Consent Decree, which makes the terms and conditions of the Consent Decree that apply to the refinery applicable to the transferee. In the event of such transfer, EWV or ERI, as applicable, shall notify the parties listed in Paragraph 77. By no earlier than thirty (30) days after such notice, EWV or ERI, as applicable, may file a motion to modify the Consent Decree with the Court to make the terms and conditions of the Consent Decree applicable to the transferee. EWV or ERI, as applicable, shall be released from the obligations and liabilities of this Consent Decree unless the United States opposes the motion and the Court finds that the transferee does not have the financial and technical ability to assume the obligations and liabilities under the Consent Decree.

8. EWV and ERI shall provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that is retained to perform work required under this Consent Decree, upon execution of any contract relating to such work no later than thirty (30) days after the Date of Lodging of the Consent Decree. Copies of the Consent Decree do not need to be supplied to firms that are retained to supply materials or equipment to satisfy requirements under this Consent Decree.

III. OBJECTIVES

9. It is the purpose of the Parties in this Consent Decree to further the objectives of the federal Clean Air Act, the Mississippi Air and Water Pollution Control Act codified at Miss. Code Ann. § 49-

17-1 *et seq.* (Rev. 1999), and the applicable West Virginia pollution control acts at: West Virginia Code §§ 22-5-1, *et seq.*

IV. DEFINITIONS

10. Unless otherwise defined herein, terms used in the Consent Decree shall have the meaning given to those terms in the Clean Air Act, and the implementing regulations promulgated thereunder.

The following terms used in the Consent Decree shall be defined for purposes of the Consent Decree and the reports and documents submitted pursuant thereto as follows:

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

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

C. “Acid Gas Flaring Device” or “AG Flaring Device” shall mean any device at the Covered Refineries that is used for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid. The AG Flaring Devices currently in service at the Covered Refineries are identified in this Consent Decree. To the extent that, during the duration of the Consent Decree, the Covered Refineries utilize AG Flaring Devices other than those specified in this Consent Decree for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree.

D. “Acid Gas Flaring Incident” or “AG Flaring Incident” shall mean the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of

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

E. “Alternative NO_x Control Technology” shall mean NO_x control technology, other than current or Next Generation Ultra Low NO_x Burners (“ULNBs”), that achieves an emission rate of 0.060 lb/mmBTU or less.

F. “Applicable Federal and State Agencies” shall mean EPA (the Applicable Federal Agency) and the West Virginia Department of Environmental Protection, and/or the Mississippi Department of Environmental Quality (the Applicable State Agencies);

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

H. “CEMS” shall mean continuous emissions monitoring system.

I. “Consent Decree” or “Decree” shall mean this Consent Decree, including any and all appendices attached to the Consent Decree.

J. “Covered Refineries” shall mean Ergon-West Virginia, Inc.’s Newell, West Virginia refinery and Ergon Refining, Inc.’s Vicksburg, Mississippi refinery that are subject to the requirements of this Consent Decree.

K. “Date of Entry of the Consent Decree” shall mean the date the Consent Decree is approved or signed by the United States District Court Judge.

L. “Date of Lodging of the Consent Decree” shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Southern District of Mississippi.

M. “Day” or “Days” as used herein shall mean a calendar day or days.

N. “WVDEP” shall mean the West Virginia Department of Environmental Protection and any successor departments or agencies of the State of West Virginia.

O. “Ergon” shall mean Ergon-West Virginia, Inc. and Ergon Refining, Inc., their respective successors and assigns, and their respective officers, directors, and employees in their capacities as such.

P. “Flaring Device” shall mean an AG Flaring Device or HC Flaring Device.

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

R. “Hydrocarbon Flaring” or “HC Flaring” shall mean the combustion of refinery-generated gases, except for Acid Gas and/or Sour Water Stripper Gas in a Hydrocarbon Flaring Device.

S. “Hydrocarbon Flaring Device” or “HC Flaring Device” shall mean, a flare device used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Off Gas. The HC Flaring Devices currently in service at the Covered Refineries are identified in Paragraph 14 to the Consent Decree. To the extent that, throughout the duration of the Consent Decree, the Covered Refineries utilize HC Flaring Devices other than those specified in Paragraph 14 for the purpose of combusting any excess of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas, those HC Flaring Devices shall be covered under this Consent Decree.

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

U. “Malfunction” shall mean, as specified in 40 C.F.R. Part 60.2, “any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process

to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.”

V. “MDEQ” shall mean the Mississippi Department of Environmental Quality and any successor departments or agencies of the State of Mississippi, including, but not limited to, the Mississippi Department of Environmental Quality.

W. “Natural Gas Curtailment” shall mean a restriction imposed by a public utility by the issuance of an Operational Flow Order limiting EWV and/or ERI’s ability to obtain natural gas.

X. “Next Generation Ultra-Low NOx Burners” or “Next Generation ULNBs” shall mean those burners new to the market that are designed to achieve a NOx emission rate of 0.012 to 0.020 lb/mmBTU (High Heating Value) when firing natural gas at 3% stack oxygen at full design load without air preheat.

Y. “NOx” shall mean nitrogen oxides.

Z. “NOx Control Technology” shall mean Next Generation ULNBs or Alternative NOx Control Technology.

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

BB. “Parties” shall mean the United States, the Plaintiff-Intervenors, EWV and ERI.

CC. “Plaintiff-Intervenors” shall mean the States of West Virginia and Mississippi.

DD. “Root Cause” shall mean the primary cause(s) of an AG Flaring Incident(s) as determined through a process of investigation.

EE. “Shutdown”, as specified in 40 C.F.R. Part 60.2, shall mean the cessation of operation of equipment for any purpose.

FF. “Sour Water Stripper Gas” or “SWS Gas” shall mean the gas produced by the process of stripping refinery sour water.

GG. “Startup”, as specified in 40 C.F.R. Part 60.2, shall mean the setting in operation of equipment for any purpose.

HH. “SO₂” shall mean sulfur dioxide.

II. “Upstream Process Units” shall mean all amine contactors, amine scrubbers, and sour water strippers at the Covered Refineries, 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.

V. AFFIRMATIVE RELIEF/ENVIRONMENTAL PROJECTS

11. NOx Emissions Reductions from Heaters and Boilers.

A. **Summary.** EWV and ERI will implement a six-year program to reduce NOx emissions from all heaters and boilers greater than 40 mmBTU/hr heat input capacity by demonstrating continuous compliance with lower emission limits through the use of source testing and CEMS at their respective refineries.

B. **NOx Emission Limits.** EWV and ERI, as applicable, shall demonstrate compliance with the following emission limits for the heaters and boilers listed below by the dates specified:

<u>Refinery</u>	<u>Unit</u>	<u>NOx Emissions Limit</u>	<u>Averaging Period</u>	<u>Compliance Deadline</u>
<u>EWV - Newell, West Virginia</u>				

Boiler A	as determined by 11.D	3-hour	December 31, 2005
Boiler B	as determined by 11.D	3-hour	December 31, 2008
Boiler C	0.050 lb/mmBTU	3-hour	December 31, 2003
H-101	0.065 lb/mmBTU	3-hour	December 31, 2003

ERI - Vicksburg, Mississippi

H-1	0.060 lb/mmBTU*	3-hour	June 30, 2003
H-3	0.060 lb/mmBTU*	3-hour	June 30, 2003
H-451	0.025 lb/mmBTU	3-hour	June 30, 2003

*The foregoing emission limits for H-1 and/or H-3 apply when H-1 and/or H-3 operates without air pre-heat. When H-1 and/or H-3 operates with air pre-heat, emissions shall not exceed 0.065 lb/mmBTU, 3-hour averaging period.

C. Testing and Monitoring NOx Emissions from Heaters and Boilers. EWV or ERI,

as applicable, shall monitor and test the heaters and boilers listed in Paragraph 11.B. to demonstrate compliance with the requirements of Paragraph 11.B. as follows:

- i. For Boiler A and Boiler B at the Newell refinery, which have a heat input capacity in excess of 100 mmBTU/hr, EWV shall install CEMS to measure NOx and O₂ by no later than the compliance deadlines listed in 11.B. EWV shall install, certify, calibrate, maintain, and operate all CEMS required by this Paragraph 11 in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendices A and F and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. These CEMS will be used to demonstrate compliance with the emission limits in 11.B. EWV shall make CEMS and process data available to the Applicable Federal and State Agencies upon demand as soon as practicable; and
- ii. For all other heaters and boilers listed in 11.B, which have a heat input capacity equal to or less than 100 mmBTU/hr, EWV or ERI, as applicable, shall conduct an initial performance test for NOx by no later than December 30, 2003 to demonstrate compliance with Paragraph 11.B. The results of these tests shall be reported based upon the average of three (3) one hour testing periods in accordance with EPA methods at 40 C.F.R. part 60 appendix A by no later than December 30, 2003.*

* Initial Performance testing conducted for H-451, H-1 and H-3 on January 29, 2003, March 6, 2003 and March 7, 2003, respectively, the results of which have been submitted to EPA and MDEQ, shall be deemed completed for purposes of 11.C.ii.

A. Establishing Nox Permit Limit for EWV Boilers A and B

By December 31, 2005 for Boiler A and by December 31, 2008, for Boiler B, EWV shall install Next Generation Ultra Nox Burners. Within 120 days after the start-up of the operation of the Next Generation Ultra Low Nox Burners on Boilers A and B (respectively), EWV shall propose NOx emission limits in lb/mmBTU on a 3-hour average basis to EPA for its approval. EPA will establish emission limits based on actual performance as demonstrated by CEMs and performance tests that shall be low enough to ensure proper operation of the NOx Control Technology and high enough to provide a reasonable certainty of compliance.

E. Recordkeeping and Reporting. Commencing in 2004, EWV or ERI, as applicable, shall submit a report to EPA and the Applicable State Agency on December 31 of each calendar year about the progress of installation of NOx Control Technology required by this Paragraph 11 and other requirements of this Paragraph. This report shall contain:

- (i) A list of all Controlled Heaters and Boilers on which NOx Control Technology was installed;
- (ii) The type of NOx Control Technology that was installed on each heater and boiler with a detailed description of the manufacturer name and model and the designed emission factors;
- (iii) The results of all performance tests conducted on each heater and boiler pursuant to the requirements of Paragraph 11.C;
- (iv) A list of all heaters and boilers scheduled to have NOx Control Technology installed during the next calendar year, the projected date of installation, and the type of NOx Control Technology that will be installed on those units; and

- (v) An identification of proposed and established permit limits applicable to each heater or boiler for which NO_x Control Technology has been installed pursuant to this Paragraph.

12. SO₂ Emissions Reductions from and NSPS Applicability of Heaters and Boilers.

A. Summary. EWV and ERI shall undertake measures to reduce SO₂ emissions from refinery heaters and boilers, at their respective refineries, by restricting H₂S in refinery fuel gas and by agreeing not to continue and/or commence the burning of fuel oil except under the provisions set forth herein.

B. NSPS Applicability of Heaters and Boilers. Upon the Date of Lodging of the Consent Decree, the heaters and boilers at the ERI Vicksburg refinery shall be affected facilities, as that term is used in 40 C.F.R. Part 60, Subparts A and J, and shall be subject to and comply with the requirements of NSPS Subparts A and J. By December 31, 2006, the heaters and boilers at the EWV Newell refinery shall be affected facilities, as that term is used in 40 C.F.R. Part 60, Subparts A and J. If there is a revision to NSPS, Subpart J that excludes either certain fuel gas combustion devices or fuel gas streams from Subpart J, then that exemption shall apply to the EWV and ERI facilities as well. By no later than December 31, 2006, EWV and ERI shall install, certify, calibrate, maintain and operate a fuel gas CEMS in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. This CEMS will be used to demonstrate compliance with the SO₂ emission limits established pursuant to this Paragraph.

C. Elimination/Reduction of Fuel Oil Burning.

From the Date of Lodging of this Consent Decree through and after termination, EWV and ERI shall not burn Fuel Oil in any combustion unit, except during periods of natural gas curtailment and during periods of DOT required maintenance of the natural gas pipeline during which EWV or ERI, as applicable, shall burn only LPG or low sulfur distillate (e.g. No. 2 oil at less than 0.5% sulfur).

13. Good Operation and Maintenance.

By no later than June 30, 2004, EWV and ERI shall submit to EPA and the appropriate state intervenor, a summary of a plan, implemented or to be implemented, for enhanced maintenance and operation of EWV's caustic scrubber unit and ERI's NaHS unit, any supplemental control devices, and the appropriate Upstream Process Units. This plan shall be termed a Preventive Maintenance and Operation Plan ("PMO Plan"). The PMO Plans shall be a compilation of EWV and ERI's respective approaches for exercising good air pollution control practices for minimizing SO₂ emissions at their respective refineries. The PMO Plans shall provide for continuous operation of the NaHS unit and the caustic scrubber between scheduled maintenance turnarounds with minimization of emissions. The PMO Plan shall include, but not be limited to, sulfur shedding procedures, new startup and shutdown procedures, emergency procedures, and schedules to coordinate maintenance turnarounds of the NaHS unit and the caustic scrubber to coincide with scheduled turnarounds of major Upstream Process Units. The PMO Plans shall have as a goal the elimination of Acid Gas Flaring. EWV and ERI, respectively, shall comply with the PMO Plans at all times, including periods of start up, shut down, and Malfunction of the NaHS unit and the caustic scrubber. Modifications related to minimizing Acid Gas Flaring and/or SO₂ emissions made by EWV or ERI to their PMOs Plan shall be

summarized in an annual submission to EPA and the appropriate state intervenor until termination of the Consent Decree.

14. NSPS Applicability of and Compliance for Flaring Devices.

A. Identification of and NSPS Applicability for Flaring Devices. EWV and ERI, respectively, own and operate the following Flaring Devices:

EWV Newell Refinery

Fl-1 and Sour Gas Flare

ERI Vicksburg Refinery

Fl-2

These Flaring Devices shall be affected facilities, as that term is used in NSPS, 40 C.F.R. Part 60, and shall be subject to and comply with the requirements of 40 C.F.R. Part 60, Subparts A and J for fuel gas combustion devices no later than December 31, 2006.

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

i. Continuous or Intermittent, Routinely-Generated Refinery Fuel Gases. For continuous or intermittent, routinely-generated refinery fuel gases that are combusted in any of the Flaring Devices identified above, EWV and ERI, as applicable, shall take the Flaring Device that is associated with such a gas stream out of service or shall comply with the emission limit at 40 C.F.R. § 60.104(a)(1) by December 31, 2006.

ii. Non-Routinely Generated Gases. The combustion of gases generated by the startup, shutdown, or Malfunction of a refinery process unit or released to a Flaring Device as a result of relief

valve leakage or other emergency Malfunction are exempt from the requirement to comply with 40 C.F.R. § 60.104(a)(1).

C. Good Air Pollution Control Practices. For all Flaring Devices identified above, EWV and ERI shall comply with the NSPS obligation to implement good air pollution control practices as required by 40 C.F.R. § 60.11(d) to minimize HC and AG Flaring Incidents.

D. Monitoring the Flaring Devices and Reporting. EWV and ERI shall insure that continuous or intermittent, routinely-generated refinery fuel gases that are combusted in any Flaring Device are monitored by a CEMS as required by 40 C.F.R. § 60.105(a)(4) or with a parametric monitoring system approved by EPA as an alternative monitoring system under 40 C.F.R. § 60.13(i). EWV and ERI shall comply with the reporting requirements of 40 C.F.R. Part 60, Subpart J, for their respective Flaring Device(s).

15. Control of Acid Gas Flaring Incidents.

By not later than December 31, 2003, EWV and ERI, as applicable, will submit to the Applicable Federal and State Agencies a report that identifies each AG Flaring Incident that occurred between January 1, 1997 and December 31, 2002 at the EWV Newell and ERI Vicksburg Refineries. Such report(s) shall also identify for each such incident its root and contributing causes (if any) and the corrective action(s) EWV and ERI, as applicable, has implemented (or is in the process of identifying and implementing) to minimize the number and duration of AG Flaring Incidents.

As soon as practicable but by no later than December 31, 2003, EWV and ERI shall implement programs to investigate the cause of future AG Flaring Incidents, to take reasonable steps to

correct the conditions that have caused or contributed to such AG Flaring Incidents, and to minimize AG Flaring Incidents through and after termination of the Consent Decree. EWV and ERI shall follow the procedures in this Paragraph 15 to evaluate whether future AG Flaring Incidents are due to Malfunctions through and after termination of the Consent Decree or are subject to stipulated penalties until termination of the Consent Decree. The procedures, as set forth below, require a root cause analysis and corrective action for all types of AG Flaring Incidents and require stipulated penalties for AG Flaring Incidents if the root causes were not due to Malfunctions.

A. Investigation and Reporting. No later than forty-five (45) days following the end of an Acid Gas Flaring Incident, until termination of the Consent Decree, EWV and ERI, as applicable, shall submit to EPA (copy to the Applicable State Agency) a report that sets forth the following:

- i. The date and time that the Acid Gas Flaring Incident started and ended. To the extent that the Acid Gas Flaring Incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, EWV and ERI, as applicable, shall set forth the starting and ending dates and times of each release;
- ii. An estimate of the quantity of sulfur dioxide that was emitted and the calculations that were used to determine that quantity;
- iii. The steps, if any, that EWV and ERI, as applicable, took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Acid Gas Flaring Incident;
- iv. A detailed analysis that sets forth the Root Cause and all contributing causes of that Acid Gas Flaring Incident, to the extent determinable;
- v. An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or contributing causes in the future. The analysis shall discuss the alternatives, if any, that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design,

operation and maintenance changes shall be evaluated. If EWV and/or ERI, as applicable, concludes that corrective action(s) is (are) required under Paragraph 15.B, 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 EWV and/or ERI, as applicable, concludes that corrective action is not required under Paragraph 15.B, the report shall explain the basis for that conclusion;

- vi. A statement that: (a) specifically identifies each of the grounds for stipulated penalties in Paragraphs 15.C.i and 15.C.ii of this Decree and describes whether or not the Acid Gas Flaring Incident falls under any of those grounds; (b) if an Acid Gas Flaring Incident falls under Paragraph 15.C.iii of this Decree, describes which Paragraph (15.C.iii.a or 15.C.iii.b) applies and why; and (c) if an Acid Gas Flaring Incident falls under either Paragraph 15.C.ii or Paragraph 15.C.iii.b, states whether or not EWV and/or ERI, as applicable, asserts a defense to the Flaring Incident, and if so, a description of the defense; and
- vii. To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of this Paragraph 15.A.iv and 15.A.v shall be submitted; provided, however, that if EWV and/or ERI, as applicable, has not submitted a report or a series of reports containing the information required to be submitted under this Paragraph within the 45 day time period set forth in Paragraph 15.A (or such additional time as EPA may allow) after the due date for the initial report for the Acid Gas Flaring Incident, the stipulated penalty provisions of Paragraph 37 shall apply, but EWV and/or ERI, as applicable, shall retain the right to dispute, under the dispute resolution provision of this Consent Decree, any demand for stipulated penalties that was issued as a result of EWV's and/or ERI's, as applicable, failure to submit the report required under this Paragraph within the time frame set forth. Nothing in this Paragraph shall be deemed to excuse EWV and/or ERI, as applicable, from its investigation, reporting, and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an Acid Gas Flaring Incident for which EWV and/or ERI, as applicable, has requested an extension of time under this Paragraph 15.B.
- viii. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, then, by no later than thirty (30) days after completion of the implementation of corrective action(s), EWV and/or ERI, as applicable, shall submit a report identifying

the corrective action(s) taken and the dates of commencement and completion of implementation.

B. Corrective Action.

i. In response to any AG Flaring Incident, through and after termination of the Consent Decree EWV and/or ERI, as applicable, shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all contributing causes of that AG Flaring Incident.

ii. If EPA does not notify EWV and/or ERI, as applicable, in writing within thirty (30) days of receipt of the report(s) required by Paragraph 15.A that it objects to one or more aspects of the 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 compliance with Paragraph 15.B.i of this Decree. EPA does not, however, by its consent to the entry of this Consent Decree or by its failure to object to any corrective action that EWV and/or ERI, as applicable, may take in the future, warrant or aver in any manner that any corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or its implementing regulations. Notwithstanding EPA's review of any plans, reports, corrective actions or procedures under this Paragraph 15, EWV and/or ERI, as applicable, shall remain solely responsible for non-compliance with the Clean Air Act and its implementing regulations. Nothing in this Paragraph 15 shall be construed as a waiver of EPA's rights under the Clean Air Act and its regulations for future violations of the Act or its regulations.

iii. If EPA does object, in whole or in part, to the proposed corrective action(s) and/or the schedule(s) of implementation, or, where applicable, to the absence of such proposal(s) and/or

schedule(s), it shall notify EWV and/or ERI, as applicable, of that fact within thirty (30) days following receipt of the report(s) required by Paragraph 15.A above. If EPA and EWV and/or ERI, as applicable, cannot agree on the appropriate corrective action(s), if any, to be taken in response to a particular Acid Gas Flaring Incident, either Party may invoke the Dispute Resolution provisions of Section XV of the Consent Decree.

iv. Nothing in Paragraph 15 shall be construed to limit the right of EWV or ERI to take such corrective actions as it deems necessary and appropriate immediately following an Acid Gas Flaring Incident or in the period during preparation and review of any reports required under this Section.

C. Stipulated Penalties. The provisions of this Paragraph 15.C are intended to implement the process outlined in the logic diagram attached hereto as Appendix A to this Consent Decree. These provisions shall be interpreted and construed, to the maximum extent feasible, to be consistent with that Attachment. However, in the event of a conflict between the language of Paragraph 15 and Appendix A, the language of this Paragraph shall control.

i. The stipulated penalty provisions of Paragraph 37.A. shall apply to any Acid Gas Flaring Incident for which the Root Cause was one or more of the following acts, omissions, or events:

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

ii. If the Acid Gas Flaring Incident is not a result of one of the root causes identified in Paragraph 15C. i., then the stipulated penalty provisions of Paragraph 37.A. shall apply if the Acid Gas Flaring Incident:

- a. Results in emissions of sulfur dioxide at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more and EWV and/or ERI, as applicable, fail to act consistent with the PMO Plan and/or to take any action during the AG Flaring Incident to reduce the duration or quantity of SO₂ emissions associated with such incident; or
- a. Causes the total number of Acid Gas Flaring Incidents in a rolling twelve (12) month period to exceed five (5).

In the event that a Flaring Incident falls under both Paragraph 15.C.i and Paragraph 15.C.ii, then Paragraph 15.C.i shall apply.

iii. With respect to any Acid Gas Flaring Incident not identified in Paragraph 15.C.i. or 15.C.ii., the following provisions shall apply:

- a. If the Root Cause of the Acid Gas Flaring Incident was sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice, then that cause shall be designated as an agreed-upon malfunction for purposes of reviewing subsequent Acid Gas Flaring Incidents, and the stipulated penalty provisions of paragraph 37.A shall not apply;
- b. First Time: If the Root Cause of the Acid Gas Flaring Incident was sudden and infrequent, but the Acid Gas Flaring Incident was reasonably preventable through the exercise of good engineering practices then EWV or ERI, as applicable, shall implement corrective action(s) pursuant to Paragraph 15.B.i., and the stipulated penalty provisions of paragraph 37.A shall not apply;
- c. Recurrence: If the Root Cause of the Acid Gas Flaring Incident is a recurrence of the same Root Cause that caused a previous Acid Gas Flaring Incident occurring after the Effective Date of this Consent Decree, unless the Root Cause of the previous Acid Gas Flaring Incident was designated as an agreed-upon Malfunction under Paragraph 15.C.iii.a., then the stipulated penalty provisions of paragraph 37.A shall apply.

iv. Defenses: EWV and/or ERI, as applicable, may raise the following affirmative defenses in response

to a demand by the United States for stipulated penalties:

- a. Force majeure.
- b. As to Paragraphs 15.C.i.a, 15.C.i.b, 15.C.i.c and 15.C.iii.c only, the Acid Gas Flaring Incident does not meet their identified criteria.
- c. As to Paragraph 15.C.i.d only, the Root Cause substantially differs from the Root Causes that caused Acid Gas Flaring Incidents between January 1, 1997 and December 31, 2002 and that were identified by EWV or ERI prior to December 30, 2003.
- d. As to Paragraphs 15.C.ii. and 15.C.iii.c only, Malfunction.
- e. As to Paragraph 15.C.iii.c only, EWV or ERI, was in the process of timely developing or implementing a corrective action plan under Paragraph 15.B.i for the previous Acid Gas Flaring Incident.

In the event a dispute under Paragraph 15.C.ii. or 15.C.iii.c is brought to the Court pursuant to the dispute resolution provisions of this Consent Decree, EWV or ERI, as applicable, may also assert a start up, shutdown and/or upset defense, but the United States shall be entitled to assert that such defenses are not available. If EWV or ERI, as applicable, prevails in persuading the Court that the defenses of startup, shutdown, and upset are available for AG Flaring Incidents under 40 C.F.R. 60.104(a)(1), EWV or ERI, as applicable, shall not be liable for stipulated penalties for emissions resulting from startup, shutdown or upset. If the United States prevails in persuading the Court that the defenses or startup, shutdown, or upset are not available, EWV or ERI, as applicable, shall be liable for such stipulated penalties.

v. Other than for a Malfunction or force majeure, if no Acid Gas Flaring Incident and no violation of the emission limit under Paragraph 14.B.i. occurs at either the EWV Newell or the ERI Vicksburg Refineries for a rolling 36 month period, then the stipulated penalty provisions of Paragraph 37.A no longer apply. EPA may elect to reinstate the stipulated penalty provision if EWV and/or ERI, as applicable, has an Acid Gas Flaring Incident which would otherwise be subject to stipulated penalties. EPA's decision shall not be subject to dispute resolution. Once reinstated, the stipulated penalty provision shall continue for the remaining life of this Consent Decree for the EWV Newell or ERI Vicksburg Refineries.

D. Miscellaneous.

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

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

The quantity of SO₂ emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO₂ emitted shall be rounded to 10.1 tons.) For purposes of determining the occurrence of, or the total quantity of SO₂ emissions resulting from, a AG 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.

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

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

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

iii. **Meaning of Variables and Derivation of Multipliers used in the Equations in Paragraph 20.D.i-ii:**

ER =	Emission Rate in pounds of SO ₂ 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
ConcH ₂ S =	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 H ₂ S/scf gas)
$8.44 \times 10^{-5} =$	$[\text{lb mole H}_2\text{S}/379 \text{ scf H}_2\text{S}][64 \text{ lbs SO}_2/\text{lb mole H}_2\text{S}][\text{Ton}/2000 \text{ lbs}]$
0.169 =	$[\text{lb mole H}_2\text{S}/379 \text{ scf H}_2\text{S}][1.0 \text{ lb mole SO}_2/1 \text{ lb mole H}_2\text{S}][64 \text{ lb SO}_2/1.0 \text{ lb mole SO}_2]$

The flow of gas to the AG Flaring Device(s) (“FR”) shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration (“ConcH₂S”) shall be determined from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler

or draeger tube analysis or by any other method approved by EPA, WVDEP or MDEQ. In the event that any of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under Paragraph 15.A.i. shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

16. Hydrocarbon Flaring Incidents. EWV and ERI will identify the causes of HC Flaring Incidents that occurred between January 1, 1997 and December 31, 2002 at their respective Refineries. EWV and ERI have implemented (or are in the process of identifying and implementing) corrective actions to minimize the number and duration of HC Flaring Incidents. For future Hydrocarbon Flaring Incidents, EWV and ERI shall follow the same investigative, reporting, and corrective action procedures as those outlined in Paragraphs 15.A - B for AG Flaring Incidents; provided however, that in lieu of analyzing possible corrective actions under Paragraph 15.A.v and taking interim and/or long-term corrective action under Paragraph 15.B.i for a HC Flaring Incident attributable to the start up or shut down of a unit that EWV and/or ERI, as applicable, has previously analyzed under this Paragraph 16, EWV and/or ERI, as applicable, may identify such prior analysis when submitting the report required under this Paragraph 16. Stipulated penalties under Paragraphs 15.C and 37.A shall not apply to HC Flaring Incident(s). The formulas at Paragraph 15.D, used for calculating the quantity and rate of sulfur dioxide emissions during AG Flaring Incidents, shall be used to calculate the quantity and rate of sulfur dioxide emissions during HC Flaring Incidents. The investigative and corrective action procedures (only) are applicable through and after termination of the Consent Decree.

17. Benzene Waste NESHAP Program Enhancements.

In addition to continuing to comply with all applicable requirements of 40 C.F.R. Part 61, Subpart FF (“Benzene Waste NESHAP” or “Subpart FF”), EWV and ERI agree to undertake, at the Newell and Vicksburg Refineries respectively, the measures set forth in Paragraphs 17.B through 17.N to ensure continuing compliance with Subpart FF and to minimize or eliminate fugitive benzene waste emissions.

A. Current Compliance Status. As of the Date of Lodging of this Consent Decree, EWV and ERI, as applicable, each believe that their respective refineries has a Total Annual Benzene (“TAB”) of less than 10 Mg/yr. EWV and ERI each will review and verify the TAB at their respective refineries consistent with the requirements of Paragraph 17.C.

B. Refinery Compliance Status Changes. If at any time from the Date of Lodging of the Consent Decree until its termination, the Newell or Vicksburg Refineries is determined to have a TAB equal to or greater than 10 Mg/yr, EWV and/or ERI, as applicable, shall comply with the compliance option set forth at 40 C.F.R. § 61.342(e) (hereinafter referred to as the “6 BQ compliance option”).

C. One-Time Review and Verification of Each Covered Refinery’s TAB.

i. Phase One of the Review and Verification Process. By no later than December 31, 2003, ERI shall complete a review and verification of the TAB for the Vicksburg refinery. By no later than March 31, 2004, EWV shall complete a review and verification of the TAB for the Newell refinery. The review and verification process shall include, but not be limited to: (i) an identification of each waste stream that is required to be included in the respective refinery’s TAB (e.g., slop oil, tank water draws, spent caustic, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround wastes); (ii) a review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the

accuracy of the annual waste quantity for each waste stream; (iii) an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste streams consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided however, that previous analytical data or documented knowledge of waste streams may be used, 40 C.F.R. § 61.355(c)(2), for streams not sampled; and (iv) an identification of whether or not the stream is controlled consistent with the requirements of Subpart FF. By no later than sixty (60) days following the completion of Phase I of the review and verification process, EWV and ERI shall each submit a Benzene Waste NESHAP Compliance Review and Verification report (“BWN Compliance Review and Verification Report”) that sets forth the results of Phase I, including but not limited to the items identified in (i) through (iv) of this Paragraph 17.C.i.

ii. Phase Two of the Review and Verification Process. Based on EPA’s review of the BWN Compliance Review and Verification Report(s), EPA may select up to 20 additional waste streams at each of the Covered Refineries for sampling for benzene concentration. EWV and/or ERI, as applicable, will conduct the required sampling and submit the results to EPA within ninety (90) days of receipt of EPA’s request. EWV and ERI will use the results of this additional sampling to recalculate the respective refineries’ TAB and to amend the BWN Compliance Review and Verification Reports, as needed. To the extent that EPA requires EWV and ERI to re-sample a Phase One waste stream as part of this Phase Two review, EWV or ERI may average the results of the two sampling events. EWV or ERI, as applicable, shall submit an amended BWN Compliance Review and Verification Report within ninety (90) days following the date of the completion of the required Phase Two sampling, if Phase Two sampling is required by EPA.

D. Implementation of Actions Necessary to Correct Non-Compliance.

i. Amended TAB Reports. If the results of the BWN Compliance Review and Verification Report(s) indicate(s) that either of the Covered Refineries has failed to file the reports required by 40 C.F.R. § 61.357(c), or that a Covered Refinery's most recently-filed report is inaccurate and/or does not satisfy the requirements of Subpart FF, EWV or ERI, as applicable, shall submit, by no later than sixty (60) days after completion of the BWN Compliance Review and Verification Report(s), an amended TAB report to the Applicable State Agency. EWV's or ERI's, as applicable, BWN Compliance Review and Verification Report(s) shall be deemed an amended TAB report for purposes of Subpart FF reporting to EPA.

ii. If the results of either BWN Compliance Review and Verification Report indicate that the Covered Refineries has a TAB of over 10 Mg/yr, EWV and/or ERI, as applicable, , shall submit to the Applicable Federal and State Agencies by no later than 180 days after completion of the BWN Compliance Review and Verification Report, a plan that identifies with specificity the compliance strategy and schedule that EWV or ERI, as applicable, will implement to ensure that the Covered Refineries comply with the 6 BQ compliance option as soon as practicable.

iii. Review and Approval of Plans Submitted Pursuant to Paragraph 17.D.ii. Any plan submitted pursuant to Paragraph 17.D.ii shall be subject to the approval of, disapproval of, or modification by EPA, which shall act in consultation with the Applicable State Agency. Within sixty (60) days after receiving any notification of disapproval or request for modification from EPA, EWV or ERI, as applicable, shall submit to the Applicable Federal and State Agency a revised plan that responds to all identified deficiencies. Upon receipt of approval or approval with conditions, EWV or

ERI, as applicable, shall implement the plan. Disputes arising under this Paragraph 17.D.iii. shall be resolved in accordance with the dispute resolution provisions of this Consent Decree.

iv. Certification of Compliance with the 6 BQ Compliance Option. By no later than thirty (30) days after completion of the implementation of all actions, if any, required pursuant to Paragraph 17.D.ii or pursuant to Paragraph 17.J.vi to come into compliance with the 6 BQ Compliance Option, EWV and ERI, each shall submit a report to the Applicable Federal and State Agencies that their respective Refinery complies with the Benzene Waste NESHAP.

v. TAB is under 1 Mg/Yr. If the results of the BWN Compliance Review and Verification Report(s) indicate(s) that either of the Covered Refineries has a TAB of under 1 Mg/yr, that Covered Refinery shall comply with the Benzene Waste NESHAP regulations applicable to such refinery.

E. Annual Program. EWV and ERI, as applicable, shall establish an annual program of reviewing process information for the Covered Refineries, including but not limited to construction projects, to ensure that all new benzene waste streams are included in the Covered Refineries' waste stream inventory.

F. Benzene Spills. For each spill at the Covered Refineries, EWV or ERI, as applicable, shall review such spills to determine if benzene waste was generated. EWV or ERI, as applicable, shall include benzene generated by such spills in the TAB for their respective Refinery.

G. Training.

i. If and when a Covered Refinery's TAB reaches 1 Mg/yr or more, then by no later than one hundred and eighty (180) days from the receipt of the information showing that the Covered Refineries' TAB has reached or exceeded 1 Mg/yr, EWV or ERI, as applicable, shall develop and begin

implementation of annual (i.e., once each calendar year) training for all employees that draw benzene waste samples.

ii. If and when a Covered Refinery's TAB reaches 10 Mg/yr or more, EWV or ERI, as applicable, shall complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste NESHAP. EWV or ERI, as applicable, shall complete an initial training program regarding these procedures for all operators assigned to this equipment.

Comparable training shall be provided to any persons who subsequently become operators, prior to their assumption of this duty. "Refresher" training shall be performed on a periodic basis. EWV or ERI, as applicable, shall propose a schedule for the initial and refresher training at the same time that EWV or ERI, as applicable, proposes a plan, pursuant to either Paragraph 17.D.ii, or Paragraph 17.J.vi, that identifies the compliance strategy and schedule that EWV or ERI, as applicable, will implement to come into compliance with the 6 BQ compliance option.

iii. As part of EWV's or ERI's training program, they must ensure that the employees of any contractors hired to perform the requirements of this Paragraph are properly trained to implement all provisions of this Paragraph at the Covered Refineries.

H. Waste/Slop/Off-Spec Oil Management.

i. By no later than December 30, 2003, EWV and ERI shall submit to the Applicable Federal and State Agencies, for the Covered Refineries, schematics that: (a) depict the waste management units (including sewers) that handle, store, and transfer waste/slop/off-spec oil streams; (b) identify the control status of each waste management unit; and (c) show how such oil is transferred within their respective Refinery. Representatives from EWV, ERI, and EPA thereafter shall confer about the appropriate characterization of the Refineries' waste/slop/off-spec oil streams for the waste

management units handling such oil streams, for purposes of the Covered Refineries' TAB calculation. At a mutually-agreed upon time, EWV and ERI, shall submit, if necessary, revised schematics that reflect the agreements between EPA and EWV and ERI, as applicable, regarding the characterization of these oil streams and the appropriate control standards.

ii. Organic Benzene Waste Streams. If a Covered Refinery's TAB reaches 10 Mg/yr and a compliance strategy is approved, all waste management units handling "organic" benzene wastes, as defined in Subpart FF, shall meet the applicable control standards of Subpart FF. If, as a result of the discussions between the EPA and EWV or ERI, as applicable, pursuant to Paragraph 17.H.i, EPA and EWV or ERI agree that controls not already in place are necessary on any waste management unit handling organic benzene wastes, the Parties shall agree, in writing, to a schedule, not to exceed two years, for the completion of the installation of the necessary controls.

iii. Aqueous Benzene Waste Streams. For purposes of calculating a Covered Refinery's TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), EWV and ERI shall include all waste/slop/off-spec oil streams that become "aqueous" until such streams are recycled to a process or put into a process feed tank (unless the tank is used primarily for the storage of wastes). If and when the Covered Refineries's TAB reaches 10 Mg/yr, then, for purposes of complying with the 6BQ compliance option, all waste management units handling aqueous benzene waste streams shall either meet the applicable control standards of Subpart FF or shall have their uncontrolled benzene quantity count toward the applicable 6 megagram limit.

iv. Plan to Quantify Uncontrolled Waste/Slop/Off-Spec Oil Streams. By no later than ninety (90) days after EPA has approved the schematics, as revised if necessary, required under Paragraph 17.H.i., EWV and ERI shall submit, for the Covered Refineries, a plan(s) to quantify

waste/slop/off-spec oil movements for all benzene waste streams which are not controlled. EPA will review the plan and may recommend revisions consistent with Subpart FF. Upon plan approval, EWV and ERI shall maintain records quantifying such movements.

v. Disputes under this Paragraph 17.H. shall be resolved in accordance with the dispute resolution provisions of this Consent Decree.

I. End of Line Sampling (If a Covered Refinery is Found to Have a TAB of 10 Mg/yr or More). The provisions of this Paragraph 17.I shall apply after the Covered Refineries' TAB reaches or exceeds 10 Mg/yr and after the Covered Refineries have completed implementation of an approved compliance plan submitted pursuant to either Paragraph 17.D.ii, or Paragraph 17.J.vi. The provisions shall continue to apply until termination ("Applicability Dates for Paragraph 17.I.").

i. By no later than sixty days after the certification required by Paragraph 17.D.iv, EWV and ERI shall submit to EPA for approval a plan(s) for an "end of the line" ("EOL") determination of the benzene quantity in uncontrolled waste streams. A copy of this plan shall be submitted to the Applicable State Agency. The proposed plan of EWV or ERI, as applicable, shall include, but not be limited to, sampling locations, methods for flow calculations, and the assumed volatilization rate(s) to be used in calculating the uncontrolled benzene quantity. Any disputes regarding plan approval under this Paragraph 17.I. shall be resolved in accordance with the dispute resolution provisions of the Consent Decree.

ii. If, during the Applicability Dates for Paragraph 17.I, changes in processes, operations, or other factors lead EWV or ERI, as applicable, to conclude that the approved sampling locations, approved methods for determining flow calculations, and/or assumed volatilization rates no longer provide an accurate measure of the Covered Refineries's EOL benzene quantity, EWV or ERI, as

applicable, shall submit a revised plan to EPA for approval. A copy of this revised plan also shall be provided to the Applicable State Agency.

iii. On a monthly basis, EWV and ERI shall conduct EOL sampling, commencing during the first month of the first full calendar quarter after EWV and ERI, receive written approval from EPA of the sampling plan for their respective Refineries. EWV and ERI shall take and have analyzed three representative samples from each approved sampling location. EWV and ERI shall use the average of these three samples as the benzene concentration for the stream at the approved location. Based on the EOL monthly sampling results, the approved flow calculations, and the volatilization assumptions, EWV and ERI shall calculate the sum of the EOL benzene quantity for the three months contained within the respective quarter. Nothing in this Paragraph 17.I shall preclude EWV and ERI from taking representative samples more frequently within any calendar month, provided that EWV and ERI identifies the basis for the additional samples. Such samples shall be included in calculating the average monthly EOL benzene quantity.

iv. If the sum of the EOL benzene quantity for the three month period contained within a quarter equals or exceeds 1.2 Mg, EWV and ERI shall take and have analyzed three representative samples, drawn on separate days during the subsequent calendar quarter, of each uncontrolled stream containing benzene over 0.05 Mg/yr, as identified in the later of (i) the final BWN Compliance Review and Verification Report; or (ii) the most recently submitted TAB report (hereinafter "Sampling of >0.05 Streams"). EWV and ERI shall undertake Sampling of >0.05 Streams for the purpose of trying to identify the cause or source of the potentially elevated benzene quantities.

v. EWV and ERI shall continue to undertake Sampling of >0.05 Streams in the second quarter after the EOL benzene quantity exceeded 1.2 Mg unless either: (i) the EOL benzene quantity in

the first quarter of the Sampling of >0.05 Streams demonstrates that the Covered Refineries' EOL benzene quantity, prorated on a yearly basis, will be below 4.8 Mg/yr; or (ii) EWV and ERI discovers and corrects the cause of the potentially elevated benzene quantities and EPA concurs in the diagnosis and corrective measures of EWV or ERI as applicable.

vi. If the sum of the EOL benzene quantity for two consecutive quarters indicates that the EOL benzene quantity, prorated on a yearly basis, will exceed 4.8 Mg/yr, and EWV or ERI, as applicable, has not discovered and corrected the cause of the potentially elevated benzene through the process of Sampling of >0.05 Streams, EWV or ERI, as applicable, shall take and have analyzed three representative samples, drawn on separate days during the third calendar quarter, of each uncontrolled stream containing benzene over 0.03 Mg/yr, as identified in the later of (i) the final BWN Compliance Review and Verification Report; or (ii) the most recently submitted TAB report (hereinafter "Sampling of >0.03 Streams"). EWV or ERI, as applicable, shall undertake Sampling of >0.03 Streams for the purpose of continuing to try to identify the cause or source of the potentially elevated benzene quantities.

vii. Sampling of >0.05 and/or >0.03 Streams shall not be required if EWV or ERI advises EPA, and EPA concurs, that the potentially elevated benzene quantities can be attributed to an identifiable event, such as a spill to the sewer or a turnaround. After such an identifiable event, however, EWV or ERI, as applicable, shall calculate its projected uncontrolled benzene quantity for the calendar year in which the event occurs. If that projection is greater than 6 mg/yr, then EWV or ERI, as applicable, shall submit to EPA for approval a plan that either (a) identifies with specificity the compliance strategy and schedule that EWV or ERI will implement to ensure that the Covered Refineries do not exceed 6 Megagrams of uncontrolled benzene for the calendar year; or (b) if as a

result of the quantity of benzene released during the event, EWV or ERI is unable to propose a plan to ensure that the Covered Refineries' uncontrolled benzene for the calendar year will be 6 Megagrams or less, then EWV or ERI shall identify the actions to be taken to minimize the uncontrolled benzene for the remainder of the year. A copy of this plan shall be submitted to the Applicable State Agency.

EWV or ERI, as applicable, shall submit this plan within sixty (60) days after the end of the quarter which resulted in a projection of greater than 6 Mg/yr of uncontrolled benzene. Sampling of >0.05 and/or >0.03 Streams shall not excuse EWV or ERI from continuing to take monthly EOL samples.

viii. If in three consecutive quarters (a) the sum of the benzene quantity indicates that the EOL benzene quantity, prorated on a yearly basis, will exceed 4.8 Mg; or (b) the sampling of >0.05 and/or >0.03 streams indicates that projected uncontrolled benzene for the calendar year will exceed 6 Megagrams, and EWV or ERI, as applicable, has not discovered and corrected, with EPA's concurrence, the cause of the potentially elevated benzene through the process of Sampling of >0.05 and >0.03 Streams, then, in the fourth quarter, EWV or ERI, as applicable, shall retain a third party contractor to undertake a comprehensive TAB study and compliance review ("Third-Party TAB Study and Compliance Review"). By no later than the last day of the fourth quarter, EWV or ERI, as applicable, shall submit a proposal to the Applicable Federal and State Agencies that identifies the contractor, the contractor's scope of work, and the contractor's schedule for the Third-Party TAB Study and Compliance Review. Unless, within thirty (30) days after EPA receives this proposal, EPA disapproves or seeks modifications, EWV or ERI, as applicable, shall authorize the contractor to commence work. By no later than sixty (60) days after EWV or ERI, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, EWV or ERI, as applicable, shall submit the results to the Applicable Federal and State Agencies. EPA, the Applicable State Agency,

and EWV or ERI, as applicable, subsequently shall discuss informally the results of the Third-Party TAB Study and Compliance Review. By no later than one-hundred twenty (120) days after EWV or ERI, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, or such other time as EWV or ERI, as applicable, and EPA may agree, EWV or ERI, as applicable, shall submit to EPA for approval a plan that addresses any deficiencies identified in the Third-Party TAB Study and Compliance Review and any deficiencies that EPA brought to the attention of EWV or ERI, as applicable, as a result of the Third-Party TAB Study and Compliance Review. A copy of this plan shall be submitted to the Applicable State Agency. The review and approval of this Plan shall be done in accordance with Paragraph 17.D.iii of this Decree. Certification of Compliance shall be done in accordance with Paragraph 17.D.iv of this Decree.

J. End of Line Sampling (TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr). The provisions of this Paragraph 17.J shall apply from the date that the final BWN Compliance Review and Verification Report submitted for the Covered Refineries pursuant to Paragraph 17.C shows that the Covered Refineries' TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr, through the earlier of: (1) the time that the Covered Refineries reaches a TAB of 10 Mg/yr or more (in which case, the provisions of Paragraph 17.I shall begin to apply); or (2) termination of the Consent Decree.

i. EWV and ERI, shall, once per calendar year, conduct sampling, consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3), of all waste streams containing benzene that contributed 0.05 Mg/yr or more to the TAB set forth in the final BWN Compliance Review and Verification Report or in the previous year's TAB, whichever is later;

ii. By no later than ninety (90) days after the date of submitting the final BWN Compliance Review and Verification Report, representatives from EPA and the Applicable State Agency shall meet at the Covered Refineries with representatives from EWV and ERI for the purpose of identifying an appropriate procedure for conducting EOL sampling and measuring EOL benzene quantities at the Covered Refineries. EPA, the Applicable State Agency, and EWV and ERI shall confer about potential EOL sample locations and shall review process and flow information and oil movement transfers. By no later than sixty (60) days after EPA and the Applicable State Agency have met with EWV and ERI, at the Covered Refineries, EWV and ERI shall submit a plan to EPA for approval that contains proposed sampling locations and methods for flow calculations to be used in the EOL determination of benzene quantity. A copy of this plan shall be submitted to the Applicable State Agency. Any disputes regarding plan approval under this Paragraph 17.J shall be resolved in accordance with the dispute resolution provisions of this Consent Decree. If, during the life of this Consent Decree, changes in processes, operations, or other factors lead EWV or ERI to conclude that either the approved sampling locations and/or the approved methods for determining flow calculations no longer provide an accurate measure of the Covered Refineries' EOL benzene quantity, EWV and ERI, as applicable, shall submit a revised plan to EPA for approval. A copy of this revised plan also shall be submitted to the Applicable State Agency.

iii. On a quarterly basis, EWV and ERI shall conduct an EOL determination of benzene quantity commencing in the first full calendar quarter after receiving written approval from EPA of the sampling plan for the Covered Refineries. EWV and ERI shall take and have analyzed at least three representative samples from each approved sampling location. EWV and ERI shall use the average of these three samples as the benzene concentration for the stream at the approved location. Based on

the EOL quarterly sampling results and the approved flow calculations, EWV and ERI shall calculate the quarterly EOL benzene quantity.

iv. If the quarterly EOL benzene quantity exceeds 2.5 Mg, EWV and ERI, as applicable, shall submit to the Applicable Federal and State Agencies a plan that identifies with specificity the actions that EWV and ERI shall take, and the schedule for such actions, to ensure that the TAB for their respective Refinery, as applicable, does not exceed 10 Mg in the calendar year.

v. On a quarterly basis, EWV and ERI shall also calculate a projected calendar year TAB, utilizing all EOL results for that calendar year and any other information (such as process turnarounds) to undertake the projection. If the projected calendar year calculation of the TAB at one of the Covered Refineries equals or exceeds 10 Mg, EWV and ERI shall submit to the Applicable Federal and State Agencies a plan that identifies with specificity the actions that EWV and ERI shall take and the schedule for such actions to ensure that the TAB for each of the Covered Refineries does not exceed 10 Mg in the calendar year. EWV and ERI shall submit this plan within thirty (30) days after the end of the quarter which resulted in a projection of greater than 10 Mg.

vi. If it appears that appropriate actions cannot be taken to ensure that either of the Covered Refineries maintains a TAB of under 10 Mg/yr, then EWV or ERI, as applicable, shall retain a third party contractor to undertake a comprehensive TAB study and compliance review (“Third-Party TAB Study and Compliance Review”). At a mutually agreed upon date, EWV or ERI, as applicable, shall submit a proposal to the Applicable Federal and State Agencies that identifies the contractor, the contractor’s scope of work, and the contractor’s schedule for the Third-Party TAB Study and Compliance Review. Unless, within thirty (30) days after EPA receives this proposal, EPA disapproves or seeks modifications, EWV or ERI, as applicable, shall authorize the contractor to

commence work. By no later than sixty (60) days after EWV or ERI, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, EWV or ERI, as applicable, shall submit the results to the Applicable Federal and State Agencies. EPA, the Applicable State Agency, and EWV or ERI, as applicable, subsequently shall discuss informally the results of the Third-Party TAB Study and Compliance Review. By no later than 120 days after EWV or ERI, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, or such other time as EWV or ERI, as applicable, and EPA may agree, EWV or ERI, as applicable, shall submit to EPA for approval a plan that identifies with specificity the compliance strategy and schedule that EWV or ERI, as applicable, will implement to ensure that each of the Covered Refineries complies with the 6BQ compliance option as soon as practicable. A copy of this Plan shall be submitted to the Applicable State Agency. The review and approval of this Plan shall be done in accordance with Paragraph 17.D.iii of this Decree. Certification of Compliance shall be done in accordance with Paragraph 17.D.iv of this Decree.

K. Miscellaneous Measures.

- i. EWV and/or ERI, as and to the extent applicable, shall comply with the Benzene Waste NESHAP provisions applicable to groundwater remediation conveyance systems if its Refineries have such systems.
- ii. The provisions of this Paragraph 17.K.ii shall apply after the Covered Refineries' TAB reaches or exceeds 10 Mg/yr (if prior to termination of the Consent Decree) and after the Covered Refineries have completed implementation of an approved compliance plan submitted pursuant to either

Paragraph 17.D.ii or Paragraph 17.J.vi. The provisions shall continue to apply until termination of the Consent Decree. EWV or ERI, as applicable, shall:

- a. Conduct monthly visual inspections of all water traps within the Covered Refineries' individual drain systems; and
- b. On a weekly basis, visually inspect all conservation vents or indicators on process sewers for detectable leaks; reset any vents where leaks are detected; and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, EWV or ERI may submit a request to the applicable EPA Region to modify the frequency of the inspections. EPA shall not unreasonably withhold its consent. Nothing in this Paragraph 17.K.ii.b shall require EWV or ERI to monitor conservation vents on fixed roof tanks.

iii. From the date that the final BWN Compliance Review and Verification Report submitted for the Covered Refineries pursuant to Paragraph 17.C shows that the Covered Refineries' TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr, and until termination of this Consent Decree, EWV or ERI, as applicable, shall identify and mark all area drains that are segregated stormwater drains.

L. Projects/Investigations.

Unless and until the TAB of the Covered Refineries reaches or exceeds 10 Mg/yr (or the Consent Decree is terminated), EWV or ERI, as applicable, will not be required to undertake any projects or any investigations relating to the Benzene Waste NESHAP other than those required in Paragraphs 17.C - 17.K. Within 60 days of receipt of information indicating that the TAB of a Covered Refinery has reached or exceeded 10 Mg/yr, EPA and EWV and/or ERI, as applicable, shall

meet and confer to discuss and establish an appropriate project or investigation relating to the Benzene Waste NESHAP.

M. Recordkeeping and Reporting Requirements for this Paragraph.

i. Outside of the Reports Required under 40 C.F.R. § 61.357 and under the Quarterly Progress Report Procedures of Section IX (Recordkeeping and Reporting). At the times specified in the applicable provisions of this Paragraph, EWV and ERI shall submit, as and to the extent required, the following reports to the Applicable Federal and State Agencies:

- a. BWN Compliance Review and Verification Report (§ 17.C.i), as amended, if necessary (§ 17.C.ii);
- b. Amended TAB Report, if necessary (§ 17.D.i);
- c. Plan for the Covered Refineries to come into compliance with the 6 BQ compliance option upon discovering that its TAB equals or exceeds 10 Mg/yr through the BWN Compliance Review and Verification Report (§ 17.D.ii), or the Third-Party TAB Study and Compliance Review that may result from EOL sampling (§ 17.J.vi);
- d. Compliance certification, if necessary (§ 17.D.iv);
- e. Schematics of waste/slop/off-spec oil movements (§ 17.H.i), as revised, if necessary (§ 17.H.i);
- f. Schedule to complete implementation of controls on waste management units handling organic benzene waste, if necessary (§ 17.H.ii);
- g. Plan to quantify uncontrolled waste/slop/off-spec oil movements (§ 17.H.iv);
- h. EOL Sampling Plans (§§ 17.I.i, 17.J.ii), and revised EOL Sampling Plans, if necessary (§§ 17.I.ii, 17.J.ii);
- i. Plan, if necessary, to ensure that uncontrolled benzene does not equal or exceed, as applicable, 6 or 10 Mg/yr -- or is minimized -- based on projected calendar year uncontrolled benzene quantities as determined through EOL sampling (§§ 17.I.vii, 17.J.iv-v);

- j. Proposal for a Third-Party TAB Study and Compliance Review, if necessary (¶¶ 17.I.viii, 17.J.vi);
- k. Third-Party TAB Study and Compliance Review, if necessary (¶¶ 17.I.viii, 17.J.vi); and
- l. Plan to implement the results of the Third-Party TAB Study and Compliance Review, if necessary (¶¶ 17.I.viii, 17.J.vi).

ii. As part of the Reports Required under the Quarterly Progress Report Procedures of Section IX (Recordkeeping and Reporting).

a. TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr. From the date that the final BWN Compliance Review and Verification Report submitted for the Covered Refineries pursuant to Paragraph 17.C shows that the Covered Refineries' TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr, until the earlier of: (1) the time that the Covered Refineries reaches a TAB of 10 Mg/yr or more (in which case, the provisions of Paragraph 17.M.ii.b shall begin to apply); or (2) termination of the Consent Decree, EWV and ERI shall submit the following information in Quarterly Progress Reports pursuant to the requirements of Section IX of this Consent Decree:

- (1) A description of the measures that it/they took to comply with the training provisions of Paragraph 17;
- (2) The annual, non-EOL sampling required at the Covered Refineries pursuant to the requirements of Paragraph 17.J.i (this information shall be submitted in the first quarterly progress report for the first calendar quarter of each year);
- (3) The results of the quarterly EOL sampling undertaken pursuant to Paragraph 17.J.iii for the calendar quarter. The report shall include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the EOL benzene quantity for the respective quarter. The Covered Refineries shall identify whether the

quarterly benzene quantity equals or exceeds 2.5 Mg and whether the projected calendar year benzene quantity equals or exceeds 10 Mg. If either condition is met, the Covered Refineries shall include in the quarterly report the plan required pursuant to Paragraph 17.J.iv and/or 17.J.v, and shall specifically seek EPA's concurrence in the plan.

b. TAB is 10 Mg/yr or More. The provisions of this Paragraph 17.M.ii.b shall apply after a Covered Refineries's TAB reaches or exceeds 10 Mg/yr (if prior to termination of the Consent Decree) and after a Covered Refinery has completed implementation of an approved compliance plan submitted pursuant to either Paragraph 17.D.ii, or Paragraph 17.J.vi. The provisions shall continue to apply until termination. EWV or ERI, as applicable, shall submit the following information in Quarterly Progress Reports pursuant to the requirements of Section IX of this Consent Decree:

- (1) A description of the measures that it/they took to comply with the training provisions of Paragraph 17;
- (2) The results of the three months of monthly EOL sampling undertaken pursuant to Paragraph 17.I.iii for the calendar quarter. The report shall include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the EOL benzene quantity for the three months contained within the respective quarter;
- (3) If the quarter is one in which EWV or ERI is required to undertake Sampling of >0.05 Streams or Sampling of >0.03 Streams at the Covered Refineries, EWV or ERI, also shall: (A) submit the results of those sampling events; (B) describe the actions that EWV or ERI is taking to identify and correct the source of the potentially elevated benzene quantities; and (C) to the extent that EWV or ERI identifies actions to correct the potentially elevated benzene quantities, specifically seek EPA's concurrence with the proposal of EWV or ERI.

iii. A summary of the reports, plans, and certifications due under the provisions of Paragraph 17 is attached as Appendix B to this Consent Decree.

N. Agencies to Receive Reports, Plans and Certifications Required in the

Paragraph; Number of Copies. EWV and ERI shall submit all reports, plans and certifications required to be submitted under this Paragraph to the Applicable Federal and State Agencies. For each submission, EWV and ERI shall submit two copies to EPA, to the applicable Region, and to the Applicable State Agency. By agreement between each of the offices that are to receive the materials in this Paragraph and EWV and ERI, the materials may be submitted electronically.

18. Leak Detection and Repair (“LDAR”) Program Enhancements.

In order to minimize or eliminate fugitive emissions of volatile organic compounds (“VOCs”), benzene, volatile hazardous air pollutants (“VHAPs”), and organic hazardous air pollutants (“HAPs”) from equipment in light liquid and/or in gas/vapor service, EWV and ERI shall undertake at the Covered Refineries the enhancements at Paragraph 18.A through Paragraph 18.P to the Covered Refineries’s LDAR program under Title 40 of the Code of Federal Regulations, Part 60, Subparts VV and GGG; Part 61, Subparts J and V; Part 63, Subparts F, H, and CC; and applicable state LDAR requirements. The terms “equipment,” “in light liquid service” and “in gas/vapor service” shall have the definitions set forth in the applicable provisions of Title 40 of the Code of Federal Regulations, Part 60, Subparts VV and GGG; Part 61, Subparts J and V; Part 63, Subparts F, H and CC; and applicable state LDAR regulations. EWV and ERI are not required to include in the enhanced program described herein any equipment or units not otherwise subject to any applicable federal or state LDAR regulation.

A. Written Refinery-Wide LDAR Program. By no later than June 30, 2004, EWV and ERI, as applicable, shall develop and maintain, for the Covered Refineries, a written Refinery program for compliance with all applicable federal and state LDAR regulations. Until termination of this Decree,

EWV and ERI shall implement this program at the Covered Refineries, and EWV and ERI shall update the Covered Refineries' program as necessary to ensure continuing compliance. The Refinery program shall include at a minimum:

i. An overall, Refinery leak rate goal that will be a target for achievement on a process-unit-by-process-unit basis;

ii. An identification of all equipment in light liquid and/or in gas/vapor service that has the potential to leak VOCs, HAPs, VHAPs, and benzene within process units that are owned and maintained by each Refinery;

iii. Procedures for identifying leaking equipment within process units that are owned and maintained by each Refinery;

iv. Procedures for repairing and keeping track of leaking equipment;

v. Procedures for identifying and including in the LDAR program new equipment; and

vi. 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. By no later than June 30, 2004, EWV and ERI shall implement the following training programs at each Refinery:

i. For personnel newly-assigned to LDAR responsibilities, EWV and ERI shall require LDAR training prior to each employee beginning such work;

ii. For all personnel assigned LDAR responsibilities, EWV and ERI shall provide and require completion of annual LDAR training; and

iii. For all other Refinery operations and maintenance personnel (including contract personnel), EWV and ERI shall provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. Until termination of this Decree, "refresher" training in LDAR shall be performed on a three year cycle.

C. LDAR Audits. Commencing upon the Date of Entry of the Consent Decree, EWV and ERI shall implement at the Covered Refineries the Refinery audits set forth in Paragraphs 18.C.i and 18.C.ii, to ensure the Refineries' compliance with all applicable LDAR requirements. The LDAR audits shall include, but not be limited to, comparative monitoring, records review, tagging, data management, and observation of the LDAR technicians' calibration and monitoring techniques.

i. Third-Party Audits. EWV and ERI each shall retain a contractor(s) to perform a third-party audit of their respective Refinery's LDAR program at least once every four years. The first third-party audit for each Refinery shall be completed no later than June 30, 2004.

ii. Internal Audits. EWV and ERI shall conduct internal audits of their respective Refinery's LDAR program. Each shall complete the first round of these internal LDAR audits by no later than two years from the date of the completion of the third-party audits required in Paragraph 23.C.i. An internal audit of the Covered Refineries shall be held every four years thereafter until termination of the Consent Decree.

iii. To ensure that an audit at the Covered Refineries occurs every two years, third-party and internal audits shall be separated by two years.

iv. Alternative. As an alternative to the internal audit required by Paragraph 23.C.ii., EWV and ERI may elect to retain third-parties to undertake the internal audit, provided that an audit of the Covered Refineries occurs every two (2) years.

D. Implementation of Actions Necessary to Correct Non-Compliance.

If the results of any of the audits conducted pursuant to Paragraph 18.C at the Covered Refineries identify any areas of non-compliance, EWV and ERI, as applicable, shall implement, as soon as practicable, all steps necessary to correct the area(s) of non-compliance, and to prevent, to the extent practicable, a recurrence of the cause of the non-compliance. Until termination of the Consent Decree, EWV and ERI shall retain the audit reports generated pursuant to Paragraphs 18.C.i and 18.C.ii and shall maintain a written record of the corrective actions that EWV and ERI take at the Covered Refineries in response to any deficiencies identified in any audits. In the quarterly report submitted pursuant to the provisions of Section IX of this Consent Decree (Recordkeeping and Reporting) for the first calendar quarter of each year, EWV and ERI shall submit the audit reports and corrective action records for audits performed and actions taken during the previous year.

E. Internal Leak Definition for Valves and Pumps; Compressor Compliance.

EWV and ERI shall utilize the following internal leak definitions for valves and pumps in light liquid and/or gas/vapor service, unless other permit(s), regulations, or laws require the use of lower leak definitions.

i. Leak Definition for Valves. By no later than December 31, 2004, EWV and ERI shall utilize an internal leak definition of 500 ppm VOCs for the Refineries' valves, excluding pressure relief devices.

ii. Leak Definition for Pumps. EWV and ERI shall utilize an internal leak definition of 2000 ppm VOCs for the Refineries' pumps by the following dates:

a. By no later than June 30, 2004, EWV and ERI shall utilize this definition for 50% of the total number of pumps that each of them has at the Covered Refineries;

b. By no later than December 31, 2004, EWV and ERI shall utilize this definition for 85% of the total number of pumps that each of them has at the Covered Refineries;

c. By no later than April 30, 2006, EWV and ERI shall utilize this definition for all of the pumps that each of them has at the Covered Refineries.

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

i. Reporting. For regulatory reporting purposes, EWV and ERI may continue to report leak rates in valves and pumps against the applicable regulatory leak definition, or may use the lower, internal leak definitions specified in Paragraph 18.E.

ii. Recording, Tracking, Repairing and Remonitoring Leaks. EWV and ERI shall record, track, repair and re-monitor all leaks in excess of the internal leak definitions of Paragraphs 18.E.i and 18.E.ii at such time as those definitions become applicable, except that EWV and ERI shall have thirty (30) days to make repairs and re-monitor leaks that are greater than the internal leak definitions but less than the applicable regulatory leak definitions.

G. First Attempt at Repairs on Valves. Beginning no later than December 31, 2003, EWV and ERI shall make a "first attempt" at repair on any valve that has a reading greater than 200 ppm of VOCs, excluding control valves, pumps, and components that LDAR personnel are not

authorized to repair. EWV and ERI, or its designated contractor, however, shall re-monitor, within 5 business days, all valves that LDAR personnel attempted to repair. Unless the re-monitored leak rate is greater than the applicable leak definition, no further action will be necessary. If, after two years from the commencement of the “first attempt at repair” program set forth in this Paragraph 18.G, EWV and ERI can demonstrate with sufficient monitoring data that the “first attempt” repair at 200 ppm of VOCs will worsen or not improve the Covered Refineries’ leak rates, EWV and ERI may request that EPA reconsider or amend this requirement.

H. LDAR Monitoring Frequency.

i. Pumps. When the lower leak definition for pumps becomes applicable pursuant to Paragraph 18.E.ii, EWV and ERI, as applicable, shall monitor pumps at the lower leak definition on a monthly basis.

ii. Valves. At the EWV Newell and ERI Vicksburg Refineries, on and after the Date of Lodging of the Consent Decree, EWV and ERI shall continue to implement a program to monitor valves more frequently than is required by applicable regulations by monitoring valves -- other than difficult to monitor or unsafe to monitor valves -- on a quarterly basis, with no ability to skip periods on a process-unit-by-process-unit basis.

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

i. Electronic Storing and Reporting of LDAR Data. At the Covered Refineries, EWV and ERI have and will continue to maintain an electronic database (e.g., EXCEL spreadsheet) for storing and reporting LDAR data. By no later than December 30, 2003, the electronic database shall include

data identifying the date and time of the monitored event, and the operator and instrument used in the monitored event.

ii. Electronic Data Collection During LDAR Monitoring and Transfer Thereafter. By no later than June 30, 2004, EWV and ERI shall submit to the Applicable Federal and State Agencies operational specifications for the data logger, software, and monitoring equipment. EWV and ERI shall use dataloggers and/or electronic data collection devices during all LDAR monitoring. EWV and ERI, or its designated contractor, shall use its/their best efforts to transfer, by the end of the next business day, electronic data from electronic data logging devices to the electronic database of Paragraph 18.I.i. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp. EWV and ERI may use paper logs where necessary or more feasible (e.g., small rounds, re-monitoring, or when data loggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, and the identification of the monitoring equipment. EWV and ERI shall use its best efforts to transfer any manually recorded monitoring data to the electronic database of Paragraph 18.I.i within seven days of monitoring.

J. QA/QC of LDAR Data. By no later than June 30, 2004, EWV and ERI, or a third party contractor retained by EWV and ERI, shall develop and implement a procedure to ensure a quality assurance/quality control (“QA/QC”) review of all data generated by LDAR monitoring technicians. EWV and ERI shall ensure that monitoring data provided to EWV and ERI by its contractors is reviewed for QA/QC before the contractor submits the data to EWV and ERI. At least once per calendar quarter, EWV and ERI shall perform QA/QC of the contractor’s monitoring data

which shall include, but not be limited to, number of components monitored per technician, time between monitoring events, and abnormal data patterns.

K. LDAR Personnel. By no later than the Date of Lodging of the Consent Decree, EWV and ERI shall establish a program that will hold LDAR personnel accountable for LDAR performance. EWV and ERI shall maintain a position within the Covered Refineries responsible for LDAR management, with the authority to implement improvements.

L. Adding New Valves and Pumps. By no later than June 30, 2004, EWV and ERI shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added to the Refineries during maintenance and construction are integrated into the LDAR program.

M. Calibration/Calibration Drift Assessment.

i. Calibration. EWV and ERI shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

ii. Calibration Drift Assessment. Beginning no later than the Date of Entry of the Consent Decree, EWV and ERI shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. EWV and ERI shall conduct the calibration drift assessment using, at a minimum, a 500 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, EWV and ERI shall re-monitor all valves that were monitored since the last calibration that had a reading greater than

100 ppm and shall re-monitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

N. Delay of Repair. Beginning no later than the Date of Lodging of the Consent Decree, for any equipment for which EWV and ERI is allowed, under the applicable regulations, to place on the “delay of repair” list for repair:

i. For all equipment, EWV and ERI shall:

a. Require sign-off by the unit supervisor or shift supervisor that the piece of equipment is technically infeasible to repair without a process unit shutdown, before the component is eligible for inclusion on the “delay of repair” list; and

b. Include equipment that is placed on the “delay of repair” list in EWV and ERI’s regular LDAR monitoring.

ii. For valves: For valves, other than control valves, leaking at a rate of 10,000 ppm or greater, EWV and ERI shall continue to use its “drill and tap” method for fixing such leaking valves, rather than placing the valve on the “delay of repair” list, unless EWV and ERI can demonstrate that there is a safety, mechanical, or major environmental concern posed by repairing the leak in this manner. After two unsuccessful attempts to repair a leaking valve through the drill and tap method, EWV and ERI may place the leaking valve on its “delay of repair” list. If a new method develops for repairing such valves, EWV and ERI will advise EPA prior to implementing such new method.

iii. For pumps: At such time as the lower leak rate definition applies pursuant to Paragraph 18.E.ii, for pumps leaking at a rate of 2000 ppm or greater, EWV and ERI shall undertake its best efforts to isolate and repair such pumps with a first attempt at fifteen (15) days.

O. Recordkeeping and Reporting Requirements for this Paragraph.

i. Outside of the Reports Required under 40 C.F.R. § 63.654 and the Quarterly Progress Report Procedures of Section IX (Recordkeeping and Reporting).

a. Written Refinery-Wide LDAR Program. No later than thirty (30) days after completion of the development of the written refinery-wide LDAR programs that EWV and ERI develop pursuant to Paragraph 18.A, EWV and ERI shall submit a copy of the Refineries' Programs to the Applicable Federal and State Agencies.

b. Submission of Operational Specifications for Electronic Data Collection during LDAR Monitoring and Certification of Use of Electronic Data Collection during LDAR Monitoring. By no later than December 31, 2003, EWV and ERI shall submit to the Applicable Federal and State Agencies operational specifications designed to minimize the use of any form of data collection and data transfer during and after LDAR monitoring other than electronic data collection and transfer.

ii. As Part of Either the Reports Required under 40 C.F.R. § 63.654 or the Quarterly Progress Report Procedures of Section IX (Recordkeeping and Reporting). Consistent with the requirements of Section IX (Recordkeeping and Reporting), EWV and ERI shall include the following information, at the following times, in their quarterly progress reports:

a. First Quarterly Progress Report Due under the Consent Decree. At the later of: (i) the first quarterly progress report due under the Consent Decree; or (ii) the first quarterly progress report in which the requirement becomes due, EWV and ERI shall include the following:

- (1) A certification of the implementation of the "first attempt at repair" program of Paragraph 18.G;

- (2) A certification of the implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 18.J;
- (3) An identification of the individual at the Refinery responsible for LDAR performance as required by Paragraph 18.K;
- (4) A certification of the development of a tracking program for new valves and pumps added during maintenance and construction as required by Paragraph 18.L;
- (5) A certification of the implementation of the calibration drift assessment procedures of Paragraph 18.M; and
- (6) A certification of the implementation of the “delay of repair” procedures of Paragraph 18.N.

b. Quarterly Progress Report for the First Calendar Quarter of Each Year. Until termination of the Consent Decree, in the quarterly progress report that EWV and ERI submit pursuant to Section XI for the first calendar quarter of each year, EWV and ERI shall include an identification of each audit that was conducted pursuant to the requirements of Paragraph 18.C in the previous calendar year including, for the Covered Refineries, an identification of the auditors, a summary of the audit results, and a summary of the actions that EWV and ERI took or intend to take to correct all deficiencies identified in the audits.

c. In Each Report Due under 40 C.F.R. § 63.654. In each report due under 40 C.F.R. § 63.654, EWV and ERI shall include:

- (1) Training. Information identifying the measures that EWV and ERI took to comply with the provisions of Paragraph 18.B; and
- (2) Monitoring. The following information on LDAR monitoring: (a) a list of the process units monitored during the quarter; (b) the number of valves and pumps monitored in each process unit; (c) the number of valves and pumps found leaking; (d) the number of “difficult to monitor” pieces of

equipment monitored; (e) the projected month of the next monitoring event for that unit; and (f) a list of all equipment currently on the “delay of repair” list and the date each component was placed on the list.

iii. A summary of the reports, plans, and certifications due under the provisions of Paragraph 18 is attached as Appendix C to this Consent Decree.

P. Agencies to Receive Reports, Plans and Certifications Required in this

Paragraph; Number of Copies. EWV and ERI shall submit all reports, plans and certifications required to be submitted under this Paragraph to the Applicable Federal and State Agencies. For each submission, EWV and ERI shall submit two copies to EPA, to the applicable Region, and to the Applicable State Agency. By agreement between each of the offices that are to receive the materials in this Paragraph and EWV and ERI, the materials may be submitted electronically.

19. Incorporation of Consent Decree Requirements into Federally-Enforceable

Permits.

A. By December 31, 2003. As soon as practicable following the Date of Lodging of the Consent Decree, but in no event later than December 31, 2003, EWV and ERI shall submit applications to the Applicable State Agency to incorporate the surviving emission limits and standards required by the Consent Decree that are effective as of the Date of Lodging of the Consent Decree into minor or major new source review permits or other permits (other than Title V permits) which are federally enforceable. Following submission of the permit application, EWV and ERI shall cooperate with the Applicable State Agency by promptly submitting to the Applicable State Agency all information that the Applicable State Agency seeks following its receipt of the permit application.

Upon issuance of such permits, EWV and ERI shall file any applications necessary to incorporate the requirements of those permits into the Title V permits of the Covered Refineries, if applicable.

B. At Variable Times. As soon as practicable, but in no event later than thirty (30) days after the effective date or establishment of any surviving emission limits and standards under Section V of this Consent Decree, EWV and ERI shall submit applications to the Applicable State Agency to incorporate those surviving emission limitations and standards into minor or major new source review permits or other permits (other than Title V permits) which are federally enforceable. Following submission of the permit application, EWV and ERI shall cooperate with the Applicable State Agency by promptly submitting to the Applicable State Agency all information that the Applicable State Agency seeks following its receipt of the permit application. Upon issuance of such permit, EWV and ERI shall file any applications necessary to incorporate the requirements of that permit into the Title V permit(s) for the Covered Refineries, if applicable.

C. Mechanism for Title V Incorporation. The Parties agree that the incorporation of the requirements of this Consent Decree into the Title V permit shall be in accordance with state Title V rules.

D. Consolidation of Operating Permits. By no later than September 30, 2003, ERI shall request the issuance of a combined operating permit as “one source” for the refinery and the terminal incorporating the requirements of the operating permits for the Vicksburg Refinery (Miss. Operating Permit # 2780-00003) and the Vicksburg Terminal (Miss. Operating Permit # 2780-00049). The Parties agree that this consolidation is for purposes of administrative convenience and not the result of any physical change or change in the method of operation of either the refinery or the terminal, as set

forth in 40 C.F.R. Part 52.21, the New Source Performance Standards and other potentially applicable programs. If as a result of the consolidation of the refinery and terminal into one source for Clean Air Act purposes additional requirements become applicable, ERI will submit a compliance plan and schedule which will be incorporated into a consolidated Title V operating permit, which provides a reasonable amount of time for ERI to comply with any applicable requirements.

E. Survival of Obligations. The following requirements will continue after termination of the Consent Decree under Section XVIII (Paragraph 81):11.B.,11.C.i., 12.B, 12.C, 14, first paragraph of 15 (as specified therein), 15.B.i (as specified therein), 16 (as specified therein), 19A, 19B, 21A, 21B, 21C, 21D and 24.

20. Obtaining Construction Permits. EWV and ERI agrees to use best efforts to obtain all required, federally enforceable permits for the construction of the pollution control technology and/or the installation of equipment necessary to implement the affirmative relief and environmental projects set forth in this Section V and in Section VIII. WVDEP and MDEQ agree to use best efforts to issue such permits to enable EWV and ERI to fulfill its obligations under the Consent Decree in a timely manner. To the extent that EWV and ERI must submit permit applications for construction or installation to the Applicable State Agencies, EWV and ERI shall cooperate with the Applicable State Agency by promptly submitting to the Applicable State Agency all information that the Applicable State Agency seeks following its receipt of the permit application. This Paragraph 20 is not intended to prevent EWV and ERI from applying to the Applicable State Agency for a pollution control project exemption.

VI. EMISSION CREDIT GENERATION

21. Emission Credit Generation.

A. Summary. The intent of this Section generally is to prohibit EWV and ERI from using the emissions reductions that will result from the installation and operation of the controls required by this Consent Decree (“CD Emissions Reductions”) for the purpose of emissions netting or emissions offsets, while still allowing EWV and ERI to use a fraction of the CD Emissions Reductions if: (1) the emissions units for which EWV and ERI seek to use the CD Emissions Reductions are modified or constructed for purposes of compliance with Tier II gasoline or low sulfur diesel requirements; and (2) the emissions from those modified or newly-constructed units are below the levels outlined in Paragraph 21.C.ii prior to the commencement of operation of the emissions units for which EWV and ERI seeks to use the CD Emissions Reductions.

B. General Prohibition. EWV and ERI shall not generate or use any NO_x, SO₂, VOC or PM emissions reductions that result from any projects conducted or controls required pursuant to this Consent Decree as netting reductions or emissions offsets in any PSD, major non-attainment and/or minor New Source Review (“NSR”) permit or permit proceeding.

C. Exception to General Prohibition.

i. Conditions Precedent to Utilization of the Exception to the General Prohibition against the Use or Generation of CD Emissions Reductions. Utilization of the exception set forth in Paragraph 21.C.ii to the general prohibition against the generation or utilization of CD Emissions Reductions set forth in Paragraph 21.B. is subject to the following conditions:

- a. Under no circumstances shall EWV or ERI use CD Emissions Reductions for netting and/or offsets prior to the time that actual CD Emissions Reductions have occurred;
- b. CD Emissions Reductions may be used only at the refinery that generated them;

- c. The CD Emissions Reductions provisions of this Consent Decree are for purposes of this Consent Decree only and neither EWV, ERI, nor any other entity may use CD Emissions Reductions for any purpose, including in any subsequent permitting or enforcement proceeding, except as provided herein; and
- d. EWV and ERI still shall be subject to all federal and state regulations applicable to the PSD, major non-attainment and/or minor NSR permitting process.

ii. Exception to General Prohibition. Notwithstanding the general prohibition set forth in Paragraph 27.B, EWV and ERI may use a total of 19 tons per year of NO_x and 10 tons per year of SO₂ from the CD Emissions Reductions as credits or offsets in any PSD, major non-attainment and/or minor NSR permit or permit proceeding occurring after the Date of Lodging of the Consent Decree, provided that the new or modified emissions unit: (1) is being constructed or modified for purposes of compliance with Tier 2 gasoline or low sulfur diesel requirements; and (2) has a federally enforceable, non-Title V Permit that reflects:

- a. For heaters and boilers, where an emission limit has been established pursuant to Paragraph 11.B. of this Consent Decree;
- b. For heaters and boilers, other than those for which an emission limit has been established pursuant to Paragraph 11.B. of this Consent Decree, a limit of 0.10 grains of hydrogen sulfide per dry standard cubic foot of fuel gas or 20 ppmvd SO₂ corrected to 0% O₂ both on a 3-hour rolling average;
- c. For heaters and boilers, no liquid or solid fuel firing authorization;

D. Outside the Scope of the General Prohibition. Nothing in this Section VI is intended to prohibit EWV or ERI from seeking to: (1) utilize or generate emissions credits or reductions from refinery units that are covered by this Consent Decree to the extent that the proposed credits or reductions represent the difference between the emissions limitations set forth in this Consent

Decree for these refinery units and the more stringent emissions limitations that EWV and ERI may elect to accept for these refinery units in a permitting process; or (2) utilize or generate emissions credits or reductions on refinery units that are not covered by this Consent Decree.

VII. MODIFICATIONS TO IMPLEMENTATION SCHEDULES

22. Securing Permits. For any work under Sections V or VIII of this Consent Decree that requires a federal, state and/or local permit or approval, EWV and ERI shall be responsible for submitting in a timely fashion applications for federal, state and local permits and approvals for work and activities required so that permit or approval decisions can be made in a timely fashion. EWV and ERI, shall use its/their best efforts to: (i) submit permit applications (i.e., applications for permits to construct, operate, or their equivalent) that comply with all applicable requirements; and (ii) secure approval of permits after filing the applications, including timely supplying additional information, if requested. If it appears that the failure of a governmental entity to act upon a timely-submitted permit application may delay EWV and ERI's performance of work according to an applicable implementation schedule, EWV and ERI shall notify the Applicable Federal and State Agencies of any such delays as soon as EWV and ERI reasonably concludes that the delay could affect its/their ability to comply with the implementation schedule set forth in this Consent Decree. EWV and ERI shall propose for approval by EPA a modification to the applicable schedule of implementation. EPA, in consultation with the Applicable State Agency, shall not unreasonably withhold its consent to requests for modifications of schedules of implementation if the requirements of this Paragraph are met. All modifications to any dates initially set forth in this Decree or in any approved schedule of implementation shall be signed in writing by EPA and EWV and ERI and neither the United States nor

EWV and ERI shall be required to file such modifications with the Court in order for the modifications to be effective. Stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled implementation date and an approved modification to such date; provided however, that Applicable Federal and State Agencies shall retain the right to seek stipulated penalties if EPA does not approve a modification to a date or dates. The failure of a governmental entity to act upon a timely-submitted permit or approval application shall not constitute a force majeure event triggering the requirements of Section XIV; this Paragraph shall apply.

23. Commercial Unavailability of Control Equipment. EWV and/or ERI, as applicable, shall be solely responsible for compliance with any deadline or the performance of any work described in Sections V and VIII of this Consent Decree that requires the acquisition and installation of control equipment. If it appears that the commercial unavailability of any control equipment may delay EWV or ERI's performance of work according to an applicable implementation schedule, EWV and/or ERI, as applicable, shall notify the Applicable Federal and State Agencies of any such delays as soon as EWV and/or ERI, as applicable, reasonably concludes that the delay could affect its/their ability to comply with the implementation schedule set forth in this Consent Decree. EWV and/or ERI, as applicable, shall propose for approval by EPA a modification to the applicable schedule of implementation. Prior to the notice required by this Paragraph 23, EWV and/or ERI, as applicable, must have contacted a reasonable number of vendors of such equipment and obtained a written representation (or equivalent communication to EPA) from the vendor that the equipment is commercially unavailable. In the notice, EWV and/or ERI, as applicable, shall reference this Paragraph 23 of this Consent Decree, identify the milestone date(s) it/they contend it/they will not be

able to meet, provide the Applicable Federal and State Agencies with written correspondence to the vendor identifying efforts made to secure the control equipment, and describe the specific efforts EWV and/or ERI, as applicable, has taken and will continue to take to find such equipment. EWV and/or ERI, as applicable, may propose a modified schedule or modification of other requirements of this Consent Decree to address such commercial unavailability. Section XV (“Retention of Jurisdiction/Dispute Resolution”) shall govern the resolution of any claim of commercial unavailability. EPA, in consultation with the Applicable State Agency, shall not unreasonably withhold its consent to requests for modifications of schedules of implementation if the requirements of this Paragraph are met. All modifications to any dates initially set forth in this Consent Decree or in any approved schedule of implementation shall be signed in writing by EPA and EWV and/or ERI, as applicable, and neither the United States nor EWV nor ERI shall be required to file such modifications with the Court in order for the modifications to be effective. Stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled implementation date and an approved modification to such date; provided however, that the Applicable Federal and State Agencies shall retain the right to seek stipulated penalties if EPA does not approve a modification to a date or dates. The failure by EWV and/or ERI, as applicable, to secure control equipment shall not constitute a force majeure event triggering the requirements of Section XIV; this Paragraph shall apply.

VIII. OTHER ENHANCED INJUNCTIVE RELIEF, ENVIRONMENTALLY BENEFICIAL PROJECTS, AND SUPPLEMENTAL ENVIRONMENTAL PROJECTS

24. Beneficial Environmental Projects.

A. ERI Plan to Comply with NSPS Subpart QQQ. By no later than December 31, 2005, the process area individual drain systems, oil-water separators, and aggregate facilities, as those terms are defined at 40 C.F.R. § 60.691, at the Vicksburg Refinery shall be affected facilities, as that term is used in the NSPS, 40 C.F.R. Part 60, and shall be subject to and comply with the requirements of 40 C.F.R. Part 60, Subpart QQQ.

B. Description of Controls. In order to comply with NSPS, Subpart QQQ, as described in paragraph 24.A, ERI shall install controls including, but not limited to, a new oil water separator tank.

25. Supplemental Environmental Projects (“SEPs”).

A. Drain Controls at the EWV Newell Refinery.

By no later than September 30, 2004, EWV shall spend \$47,000 upgrading controls on existing drains by installing vapor seals that meet the requirements of the New Source Performance Standards, Subpart QQQ . The drains to be installed as part of the SEP do not include any drains for which controls under NSPS, Subpart QQQ already have been installed or drains that already are required to be equipped with controls under NSPS, Subpart QQQ as part of the work to be done pursuant to the Consent Agreement and Final Order and Administrative Compliance Order by Consent described in paragraph 68.E. The total value of this SEP shall equal or exceed \$37,600.

B. EWV Vacuum Fractionation Heater.

By no later than September 30, 2004, EWV shall complete the replacement of four (4) conventional burners in the Vacuum Fractionation Heater (H-701) with ultra low NOx burners of the same size. The total value of this SEP shall equal or exceed \$40,000.

C. Community SEPs for ERI. ERI shall perform a SEP designed to benefit the community where the Vicksburg Refinery is located, which is described in the statement of work set forth in Appendix E. The total value of this community SEP shall equal or exceed \$80,000. ERI shall implement the project and submit a cost report, certified as accurate under penalty of perjury by the responsible corporate official, upon its completion. ERI shall complete the project by March 31, 2004, unless MDEQ approves in writing an extension to this deadline.

D. Community SEPs for EWV. EWV shall perform a SEP designed to benefit the community where the Newell Refinery is located, which is described in the statement of work set forth in Appendix E. The total value of this community SEP shall equal or exceed \$80,000. EWV shall implement the project and submit a cost report, certified as accurate under penalty of perjury by the responsible corporate official, upon its completion. EWV shall complete the project by March 31, 2004, unless WVDEP approves in writing an extension to this deadline.

E. If EWV and ERI, as and to the extent applicable, do not expend at least 90% of the total value of the SEPs identified in this Paragraph, EWV or ERI, as applicable, shall pay a stipulated penalty equal to the difference between the amount expended as demonstrated in the certified cost report(s) and \$237,600. The stipulated penalty shall be paid as provided in Paragraph 60 (Stipulated Penalties) of the Consent Decree.

F. By signing this Consent Decree, EWV and ERI certify that neither is required, and has no liability under any federal, state or local law or regulation or pursuant to any agreements or orders of any court, to perform or develop any of the projects identified in Paragraph 25. EWV and ERI further certify that it has not applied for or received, and will not in the future apply for or receive: (1) credit as

a SEP or other penalty offset in any other enforcement action for the projects set forth in Paragraph 25; or (2) credit for any emissions reductions resulting from the projects set forth in Paragraph 25 in any federal, state or local emissions trading or early reduction program.

26. The Report required by this Paragraph 26 of this Consent Decree for the year in which each project identified in Paragraph 25 is completed shall contain the following information with respect to such projects:

- i. A detailed description of each project as implemented;
- ii. A brief description of any significant operating problems encountered, including any that had an impact on the environment, and the solutions for each problem;
- iii. Certification that each project has been fully implemented pursuant to the provisions of this Consent Decree; and
- iv. A description of the environmental and public health benefits resulting from implementation of each project (including quantification of the benefits and pollutant reductions, if feasible).

27. EWV and ERI agree that in any public statements regarding any supplemental environmental projects, EWV and ERI must clearly indicate that these projects are being undertaken as part of the settlement of an enforcement action for alleged violations of the Clean Air Act and the West Virginia and Mississippi States' pollution control acts.

IX. REPORTING AND RECORDKEEPING

28. Beginning with the first full calendar quarter after the Date of Entry of the Consent Decree, EWV and ERI shall submit to the Applicable Federal and State Agencies within thirty (30) days after the end of each calendar quarter for 2003 and 2004, and semi-annually thereafter until termination of this Consent Decree a progress report for the Covered Refineries. This report shall

contain, for the Covered Refineries, the following: progress report on the implementation of the requirements of Section V (Affirmative Relief/Environmental Projects); a summary of the emissions data as required by Section V of this Consent Decree for the calendar quarter; a description of any problems anticipated with respect to meeting the requirements of Section V of this Consent Decree; a description of all environmentally beneficial projects and implementation activity in accordance with Paragraphs 24 - 25 of the Consent Decree; and any such additional matters as EWV and ERI believe should be brought to the attention of the Applicable Federal and State Agencies. The report shall be certified by either the person responsible for environmental management or by a person responsible for overseeing implementation of this Decree for EWV and ERI, respectively, 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.

X. CIVIL PENALTY

29. In satisfaction of the civil claims asserted by the United States and the Plaintiff-Intervenors in the complaint filed in this matter, within thirty (30) days of the Date of Entry of the Consent Decree:

(1) EWV shall pay a civil penalty of \$111,600 as follows: (1) \$55,800 to the United States; and (2) \$55,800 to WVDEP; and (2) ERI shall pay a civil penalty of \$138,000 as follows: (1) \$69,000 to the United States; and (2) \$69,000 to MDEQ.

A. Payment of monies to the United States shall be made by Electronic Funds Transfer (“EFT”) to the United States Department of Justice, in accordance with current EFT procedures, referencing USAO File Number _____, DOJ Case Number 90-5-2-1-06064/1, and the civil action case name and case number of this action in the Southern District of Mississippi. The costs of such EFT shall be the responsibility of EWV and ERI. Payment shall be made in accordance with instructions provided to EWV and ERI by the Financial Litigation Unit of the U.S. Attorney’s Office for the Southern District of Mississippi. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. EWV and ERI shall provide notice of payment, referencing USAO File Number _____, DOJ Case Number 90-5-2-1-06064/1, and the civil action case name and case number to the Department of Justice and to EPA, as provided in Paragraph 77 (Notice).

B. Payment of the civil penalty owed to the States of West Virginia and Mississippi under this Paragraph shall be made by certified or corporate check made payable to the State of West Virginia and the Mississippi Department of Environmental Quality and sent to the following addresses, as appropriate:

West Virginia Department of Environmental Protection
Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, WV 25304

Mississippi Department of Environmental Quality
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289

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

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

XI. STIPULATED PENALTIES

32. EWV and ERI shall pay stipulated penalties for each failure by EWV and ERI to comply with the terms of this Consent Decree as provided herein. Stipulated penalties shall be calculated in the amounts specified in Paragraphs 33 through 45. For purposes of seeking stipulated penalties under Paragraph 33, stipulated penalties shall not start to accrue until there is noncompliance with the concentration-based, rolling average emission limit identified in the Subparagraph for 5% or more of the applicable unit's operating time during any calendar quarter. For those provisions where a stipulated penalty of either a fixed amount or 1.2 times the economic benefit of delayed compliance is available, the decision of which alternative to seek shall rest exclusively within the discretion of the Applicable Federal and State Agencies.

33. **Paragraph 11 – Requirements for NOx Emission Reductions from Heaters and Boilers.**

A. For failure to install required NOx Control Technology by the dates specified in

Paragraph 11.B, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$625
31 st through 60 th day after deadline	\$1,500
Beyond 60 th day after deadline	\$2,500, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

B. For failure to install and/or certify a CEMS on a Controlled Heater or Boiler by the

required deadline, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$112.50
31 st through 60 th day after deadline	\$250
Beyond 60 th day after deadline	\$500, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

C. For failure to submit the written deliverables required by Paragraph 11, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$50
31 st through 60 th day after deadline	\$125
Beyond 60 th day	\$250

D. For each failure to meet NOx emission limits proposed by EWV and ERI pursuant to Paragraph 11.D, per day, per unit: \$100 for each calendar day in a calendar quarter on which the specified 3-hour average exceeds the applicable limit.

34. **Paragraph 12 - Requirements for SO₂ Emission Reductions from Heaters and Boilers.**

A. After the date set forth in this Decree for NSPS applicability of any fuel gas combustion device, for burning any refinery fuel gas that contains hydrogen sulfide in excess of 0.1 grains per dry standard cubic foot on a 3-hour rolling average at any fuel gas combustion devices, per Covered Refineries, per day in a calendar quarter:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day	\$1,250
Over 30 days	\$1,875 or, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

B. For burning Fuel Oil in a manner inconsistent with the requirements of Paragraph 12.C, per Covered Refineries, per day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 st through 30 th day	\$437.50
Beyond 31 st day	\$1,250

35. [RESERVED]

36. **Paragraph 14 – Requirements for NSPS Applicability of Flaring Devices.**

For failure to install and/or certify a CEMS or submit and comply with an AMP, at flares that combust continuous or intermittent, routinely-generated refinery fuel gases, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$125
31 st through 60 th day after deadline	\$250
Beyond 60 th day after deadline	\$500 or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

37. **Paragraph 15 – Requirements for Control of Acid Gas Flaring Incidents.** A. For

AG Flaring Incidents for which EWV and ERI is liable under Paragraph 15:

Tons Emitted in Flaring Incident	Length of Time from Commencement of Flaring within the Flaring Incident to Termination of Flaring within the Flaring Incident is 3 hours or less.	Length of Time from Commencement of Flaring within the Flaring Incident to Termination of Flaring within the Flaring Incident is greater than 3 hours but less than or equal to 24 hours.	Length of Time of Flaring within the Flaring Incident is greater than 24 hours.
5 Tons or less	\$500 per Ton	\$750 per Ton	\$1,000 per Ton
Greater than 5 Tons, but less than or equal to 15 Tons	\$1,200 per Ton	\$1,800 per Ton	\$2,300 per Ton, up to, but not exceeding, \$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 Flaring Incident lasts

For purposes of calculating stipulated penalties pursuant to this Paragraph 37.A, only one cell within the matrix shall apply. Thus, for example, for a Flaring Incident in which the Flaring starts at 1:00 p.m. and ends at 3:00 p.m., and for which 14.5 tons of sulfur dioxide are emitted, the penalty would be \$17,400

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

B. For failure to timely submit any report required by Paragraph 15, or for submitting any report that does not conform to the requirements of Paragraphs 15:

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$200
Days 31-60	\$400
Over 60 days	\$750

C. For those corrective action(s) which EWV and ERI: (i) agrees to undertake following receipt of an objection by EPA pursuant to Paragraph 15; or (ii) is required to undertake following dispute resolution, then, from the date of EPA’s receipt of EWV and ERI’s report under Paragraph 15 of this Consent Decree until the date that either: (i) a final agreement is reached between EPA and EWV and ERI regarding the corrective action; or (ii) a court order regarding the corrective action is entered, EWV and ERI shall be liable for stipulated penalties as follows:

i.	<u>Period of Delay</u>	<u>Penalty per day</u>
	Days 1-120	\$12.50
	Days 121-180	\$25

Days 181 - 365	\$75
Over 365 Days	\$750

or

- ii. 1.2 times the economic benefit resulting from EWV and ERI's failure to implement the corrective action(s).

D. For failure to complete any corrective action under Paragraph 15 of this Decree in accordance with the schedule for such corrective action agreed to by EWV and ERI or imposed on EWV and ERI pursuant to the dispute resolution provisions of this Decree (with any such extensions thereto as to which EPA and EWV and ERI may agree in writing):

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$250
Days 31-60	\$500
Over 60	\$1,250

38. Paragraph 16 – Requirements for Control of Hydrocarbon Flaring Incidents.

A. For each failure to perform a root cause analysis or submit a written report or perform corrective actions for a Hydrocarbon Flaring Incident:

<u>Period of Delay or Non-Compliance</u>	<u>Penalty per day per Incident</u>
1st through 30th day	\$125
31st through 60th day	\$375
Beyond 60th day	\$500

39. Paragraph 17 - Requirements for Benzene Waste NESHAP Program

Enhancements. For each violation in which a frequency is specified in Paragraph 17, 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. For requirements where no frequency is specified, penalties will not be doubled.

A. For failure to complete the BWN Compliance Review and Verification Reports as required by Paragraph 17.C, \$1,875 per month.

B. For failure to implement the actions necessary to correct non-compliance as required by Paragraph 17.D:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$312.50
31 st through 60 th day after deadline	\$750
Beyond 60 th day	\$1,250, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

C. If TAB equals or exceeds 1 Mg/yr, for failure to implement the training requirements of Paragraph 17.G, \$2,500 per quarter.

D. For failure to submit or maintain any records or materials required by Paragraph 17.H of this Consent Decree, \$500 per record or submission.

E. If TAB equals or exceeds 10 Mg/yr, for failure to install controls on waste management units handling organic wastes as required by Paragraph 17.H.ii, \$2,500 per month per waste management unit.

F. If TAB equals or exceeds 1 Mg/yr, for failure to conduct sampling in accordance with the sampling plans required by Paragraphs 17.I (10 Mg/yr or more) or 17.J (1 Mg/yr or more), as applicable:

\$125 per week, per stream, or \$7,500 per quarter, per stream, whichever is greater, but not to exceed \$37,500 per quarter.

G. If TAB equals or exceeds 1 Mg/yr, for failure to submit the plan or retain the third-party contractor required by Paragraphs 17.I.viii (10 Mg/yr or more), 17.J.v (1 Mg/yr or more), or 17.J.vi (1 Mg/yr or more), \$2,500 per month, per refinery.

H. If TAB equals or exceeds 10 Mg/yr, for failure to comply with the miscellaneous compliance measures set forth in Paragraph 17.K.ii, as follows:

For K.ii.a, monthly visual inspections: \$125 per drain not inspected;

For K.ii.b, weekly monitoring of vents: \$125 per vent not monitored;

I. If TAB equals or exceeds 1 Mg/yr, for failure to identify/mark segregated stormwater drains as required in Paragraph 17.K.iii: \$250 per week per drain;

J. For failure to submit the written deliverables required by Paragraph 17.M:

\$250 per week, per report.

K. If it is determined through federal, state, or local investigation that a Covered Refinery has failed to include all benzene containing waste streams in its TAB calculation submitted pursuant to Paragraphs 17.C., EWV and ERI, shall pay the following:

<u>Waste Stream</u>	<u>Penalty</u>
for waste streams < 0.03 Mg/yr	\$62.50
for waste streams between 0.03 and 0.1 Mg/yr	\$250
for waste streams between 0.1 and 0.5 Mg/yr	\$1,250
for waste streams > 0.5 Mg/yr	\$2,500

40. **Paragraph 18– Requirements for Leak Detection and Repair Program**

Enhancements. For each violation in which a frequency is specified in Paragraph 18, 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. For requirements where no frequency is specified, penalties will not be doubled.

A. For failure to implement the training programs specified in Paragraph 18.B:

\$2,500 per month, per program.

B. For failure to conduct any of the audits described in Paragraph 18.C:

\$1,250 per month, per audit.

C. For failure to implement any actions necessary to correct non-compliance as required in

Paragraph 18.D:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$312.50
31 st through 60 th day after deadline	\$750
Beyond 60 th day	\$1,250, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

D. For failure to initiate an internal leak rate definition as specified in Paragraph 18.E:

\$2,500 per month per process unit.

E. For failure to implement the first attempt repair program in Paragraph 18.G or for failure to implement the QA/QC procedures described in Paragraph 18.J:

\$2,500 per month.

F. For failure to implement the more frequent monitoring program required by

Paragraph 18.H.ii:

\$2,500 per month, per unit.

G. For failure to designate an individual as accountable for LDAR performance as required in Paragraph 18.K, or for failure to implement the maintenance tracking program in Paragraph 18.L, or for failure to write a LDAR program that meets the requirements of Paragraph 18.A:

\$937.50 per week.

H. For failure to use data loggers or maintain electronic data as required by Paragraph 18.I.:

\$1,250 per month.

I. For failure to conduct the calibration drift assessments or remonitor valves and pumps based on calibration drift assessments in Paragraph 18.M:

\$25 per missed event.

J. For failure to comply with the requirements for repair set forth at Paragraphs 18.N.ii and 18.N.iii:

\$1,250 per valve or pump

K. For failure to submit the written deliverables required by Paragraph 18.O:

\$250 per week per report

L. If it is determined through a federal, state, or local investigation that EWV and ERI has failed to include all valves and pumps in its LDAR program, EWV and ERI shall pay \$43.75 per component that it failed to include.

41. **Paragraph 19 – Requirements to Incorporate Consent Decree Requirements into**

Federally-Enforceable Permits.

For each failure to submit an application as required by Paragraph 19:

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$200
Days 31-60	\$400
Over 60 Days	\$750

42. **Paragraph 24 – Requirements Related to Environmentally Beneficial**

Projects and Paragraph 25 - Requirements Related to Supplemental Environmental Projects.

A. For failure to install and operate the controls required pursuant to the approved schedule of implementation required in Section VIII, Paragraph 24, per unit, per day or to implement the SEPs under Paragraph 25, per project, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$125
31 st through 60 th day after deadline	\$500
Beyond 60 th day	\$625 or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

43. **Paragraph 28 -- Requirements for Reporting and Recordkeeping.**

For failure to submit reports as required by Section IX, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$75
31 st through 60 th day after deadline	\$275
Beyond 60 th day	\$500

44. **Paragraphs 29 and 68(E) - Requirements for Payment of Civil Penalties/EWV**

Compliance with Administrative Order.

A. For EWV's or ERI's failure to pay the civil penalty specified in Paragraph 29 of this Consent Decree and/or EWV's failure to pay the civil penalty specified in the Consent Agreement and Final Order (CAA-03-2003-0196), EWV and/or ERI, as applicable, shall be liable for \$2,500 per day plus interest on the amount overdue at the rate specified in 28 U.S.C § 1961(a).

B. For EWV's failure to install each NSPS, Subpart QQQ, control by the applicable date(s) specified in Administrative Compliance Order by Consent (Docket No. CAA-03-2003-0197DA), per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 st through 30 th day after deadline	\$625
31 st through 60 th day after deadline	\$1,500
Beyond 60 th day after deadline	\$2500, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

C. For EWV's failure to comply with the recordkeeping, reporting, testing and permit modification requirements pursuant to the Administrative Compliance Order by Consent, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
------------------------	------------------------

1 st through 30 th day after deadline	\$50
31 st through 60 th day after deadline	\$125
Beyond 60 th day	\$250

45. **Paragraph 32 – Requirement to Escrow Stipulated Penalties.** For failure to escrow stipulated penalties as required by Paragraph 32 of this Consent Decree, EWV and ERI shall be liable for \$625 per day, and for interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a).

46. **Payment of Stipulated Penalties.** EWV and ERI shall pay stipulated penalties upon written demand by the United States or the Applicable State Agency no later than sixty (60) days after EWV and ERI receives such demand. Demand by one shall be deemed a demand by all, but they shall consult with each other prior to making a demand. Stipulated penalties owed by EWV and/or ERI, as applicable, shall be paid 50% to the United States and 50% to the Applicable State Agency. Stipulated penalties shall be paid to the United States and the States of West Virginia and Mississippi in the manner set forth in Section X (Civil Penalty) of this Consent Decree. A demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the stipulated penalty amount the Applicable Federal or State Agency is demanding for each violation (as can be best estimated), the calculation method underlying the demand, and the grounds upon which the demand is based. After consultation with each other, the United States or the Applicable State Agency may, in their unreviewable discretion, waive payment of any portion of stipulated penalties that may accrue under this Consent Decree.

47. **Stipulated Penalties Dispute.** Should EWV and/or ERI dispute the United States and/or WVDEP or MDEQ’s demand for all or part of a stipulated penalty, it may avoid the imposition

of a stipulated penalty for failure to pay a stipulated penalty under Paragraph 32 by placing the disputed amount demanded in a commercial escrow account pending resolution of the matter and by invoking the dispute resolution provisions of Section XV within the time provided in Paragraph 32 for payment of stipulated penalties. If the dispute is thereafter resolved in EWV and/or ERI's favor, the escrowed amount plus accrued interest shall be returned to EWV and/or ERI, as applicable; otherwise, the Applicable Federal and State Agency(ies) shall be entitled to the amount that was determined to be due by the Court, plus the interest that has accrued in the escrow account on such amount. The United States, West Virginia and Mississippi reserve the right to pursue any other non-monetary remedies to which they are entitled, including but not limited to, additional injunctive relief for EWV and ERI's violations of this Consent Decree.

XII. INTEREST

48. EWV and ERI shall be liable for interest on the unpaid balance of the civil penalty specified in Section X, and for interest on any unpaid balance of stipulated penalties to be paid in accordance with Section XI. All such interest shall accrue at the rate established pursuant to 28 U.S.C. § 1961(a) -- i.e., a rate equal to the coupon issue yield equivalent (as determined by the Secretary of Treasury) of the average accepted auction price for the last auction of 52-week U.S. Treasury bills settled prior to the Date of Lodging of the Consent Decree. Interest shall be computed daily and compounded annually. Interest shall be calculated from the date payment is due under the Consent Decree through the date of actual payment. For purposes of this Paragraph 48, interest pursuant to this Paragraph will cease to accrue on the amount of any stipulated penalty payment made into an interest bearing escrow account as contemplated by Paragraph 48 of the Consent Decree. Monies timely paid into escrow shall not be considered to be an unpaid balance under this Section.

XIII. RIGHT OF ENTRY

49. Any authorized representative of EPA or the Applicable State Agency, including independent contractors, upon presentation of credentials, shall have a right of entry upon the premises of the facilities of the Covered Refineries, 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 EWV and ERI required by this Consent Decree. EWV and ERI shall retain such records for the period of the Consent Decree. Nothing in this Consent Decree shall limit the authority of EPA or the Applicable State Agency to conduct tests, inspections, or other activities under any statutory or regulatory provision.

XIV. FORCE MAJEURE

50. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, EWV and/or ERI, as applicable, shall notify the Applicable Federal and State Agencies in writing as soon as practicable, but in any event within ten (10) business days of the date when EWV and/or ERI, as applicable, first knew of the event or should have known of the event by the exercise of due diligence. In this notice, EWV and/or ERI, as applicable, shall specifically reference this Paragraph 50 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 EWV and/or ERI, as applicable, to prevent or minimize the delay and the schedule by which those measures shall be implemented. EWV and/or ERI, as applicable, shall adopt all reasonable measures to avoid or minimize such delays. The notice required by this Section shall be effective upon the mailing of the same by certified mail, return receipt requested, to the Applicable EPA Regional Office as specified in Paragraph 77 (Notice).

51. Failure by EWV and/or ERI, as applicable, to substantially comply with the notice requirements of Paragraph 50 as specified above shall render this Section XIV (Force Majeure)

voidable by the United States, in consultation with the Applicable State Agency, as to the specific event for which EWV and/or ERI, as applicable, has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.

52. The United States, after consultation with the Applicable State Agency, shall notify EWV and/or ERI, as applicable, in writing regarding its/their claim of a delay or impediment to performance within thirty (30) days of receipt of the force majeure notice provided under Paragraph 50.

53. If the United States, after consultation with the Applicable State Agency, agrees that the delay or impediment to performance has been or will be caused by circumstances beyond the control of EWV and/or ERI, as applicable, including any entity controlled by EWV and/or ERI, as applicable, and that EWV and/or ERI, as applicable, 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. Such stipulation shall be filed as a modification to the Consent Decree pursuant to the modification procedures established in this Consent Decree. EWV and/or ERI, as applicable, shall not be liable for stipulated penalties for the period of any such delay.

54. If the United States, after consultation with the Applicable State Agency, does not accept EWV and/or ERI's claim, as applicable, of a delay or impediment to performance, EWV and/or ERI, as applicable, must submit the matter to the Court for resolution to avoid payment of stipulated penalties, by filing a petition for determination with the Court. Once EWV and/or ERI, as applicable, has submitted this matter to the Court, the United States and the Applicable State Agency shall have twenty (20) business days to file their responses to the petition. If the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of EWV and/or ERI, as applicable, including any entity controlled by EWV and/or ERI, as applicable,

and that the delay could not have been prevented by EWV and/or ERI, as applicable, by the exercise of due diligence, EWV and/or ERI, as applicable, shall be excused as to that event(s) and delay (including stipulated penalties), for a period of time equivalent to the delay caused by such circumstances.

55. EWV and/or ERI, as applicable, 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 its/their control, including any entity controlled by it/them, and that it/they could not have prevented the delay by the exercise of due diligence. EWV and/or ERI, as applicable, 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 will not necessarily, result in an extension of a subsequent compliance date or dates.

56. Unanticipated or increased costs or expenses associated with the performance of EWV and/or ERI's obligations under this Consent Decree shall not constitute circumstances beyond its/their control, or serve as the basis for an extension of time under this Section XIV.

57. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to either Party as a result of EWV and/or ERI serving a force majeure notice or the Parties' inability to reach agreement.

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

XV. RETENTION OF JURISDICTION/DISPUTE RESOLUTION

59. This Court shall retain jurisdiction of this matter for the purposes of implementing and enforcing the terms and conditions of the Consent Decree and for the purpose of adjudicating all disputes (including, but not limited to, determinations under Section V (Affirmative Relief/Environmental Projects) of the Consent Decree)) among the Parties that may arise under the provisions of the Consent Decree, until the Consent Decree terminates in accordance with Paragraph 81 of this Consent Decree (Termination).

60. Except as expressly provided in Paragraph 15.C.ii, the dispute resolution procedure set forth in this Section XV shall be available to resolve any and all disputes arising under this Consent Decree, including assertion of commercial unavailability under Paragraph 23 of this Consent Decree, provided that the Party making such application has made a good faith attempt to resolve the matter with the other Party.

61. 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 the other party of a dispute pursuant to this Section XV. The notice shall describe the nature of the dispute, and shall state the noticing Party's position with regard to such dispute. The Party 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.

62. 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 Parties, unless it is agreed that this period should be extended.

63. In the event that the Parties are unable to reach agreement during such informal negotiation period, the United States or the Applicable State Agency, as applicable, shall provide EWV and/or ERI, as applicable, with a written summary of its position regarding the dispute. The position advanced by the United States or the Applicable State Agency, as applicable, shall be considered binding unless, within forty-five (45) calendar days of EWV and/or ERI's receipt of the written summary of the United States or the Applicable State Agency's position, EWV and/or ERI, as applicable, files with the Court a petition which describes the nature of the dispute. The United States or the Applicable State Agency shall respond to the petition within forty-five (45) calendar days of filing.

64. In the event that the United States and the Applicable State Agency make differing determinations or take differing actions that affect EWV and/or ERI's rights or obligations, as applicable, under this Consent Decree, the final decisions of the United States shall take precedence.

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

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

67. As part of the resolution of any dispute submitted to dispute resolution, the Parties, by agreement, or this Court, by order, may, in appropriate circumstances, extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. EWV and/or ERI, as applicable, shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

XVI. EFFECT OF SETTLEMENT

68. The effect of settlement of this action is governed by this Paragraph 68.

A. Definitions. For purposes of Paragraph 68, the following definitions apply:

i. “Applicable NSR/PSD Requirements” shall mean:

- (a) PSD requirements at Part C of Subchapter I of the Clean Air Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. § 52.21;
- (b) “Plan Requirements for Non-Attainment Areas” at Part D of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7502-7503, and the regulations promulgated thereunder at 40 C.F.R. §§ 51.165 (a) and (b); Title 40, Part 51, Appendix S; and 40 C.F.R. § 52.24; and
- (c) Any applicable state regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above.

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

iii. “Post-Lodging Compliance Dates” shall mean any dates in this Paragraph 68 after the Date of Lodging. Post-Lodging Compliance Dates include dates certain (e.g., “December 31, 2004”), dates after Lodging represented in terms of “months after Lodging” (e.g., “Twelve Months after the Date of Lodging”), and dates after Lodging represented by actions taken (e.g., “Date of Certification”). The Post-Lodging Compliance Dates represent the dates by which work is required to be completed or an emission limit is required to be met under the applicable provisions of this Consent Decree.

B. New Source Review/Prevention of Significant Deterioration.

i. Liability Resolution regarding the Applicable NSR/PSD Requirements.

a. With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of EWV and ERI to the United States and the Plaintiff-Intervenors: (i) for violations of the Applicable NSR/PSD Requirements resulting from construction or modification, that occurred prior to the Date of Lodging of the Consent Decree, of the following units; and (ii) for any pre-Lodging construction or modification of the following units that resulted in violations of the Applicable NSR/PSD Requirements that continued up to the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
All EWV and ERI heaters and boilers listed in Para. 11	NO _x	Dates in Para. 11
All EWV and ERI heaters and boilers other than those listed in Para. 11	NO _x	Date of Lodging
All ERI heaters and boilers	SO ₂	Date of Lodging
All EWV heaters and boilers	SO ₂	December 31, 2006

ii. Reservation of Rights: Release for Violations Continuing After the Date of Lodging Can be Rendered Void. Notwithstanding the resolution of liability in Paragraph 68.B.i, the release of liability by the United States and the Plaintiff-Intervenors to EWV and ERI for violations of the Applicable NSR/PSD Requirements during the period between the Date of Lodging of the Consent Decree and the Post-Lodging Compliance Dates shall be rendered void if EWV and ERI materially fails to comply with the obligations and requirements of Paragraphs 11 - 12; provided however, that the release in Paragraph 68.B.i shall not be rendered void if EWV and ERI remedies such material failure and pays any stipulated penalties due as a result of such material failure.

iii. Exclusions from Release Coverage: Construction and/or Modification Not

Covered by Paragraph 68.B.i. Notwithstanding the resolution of liability in Paragraph 68.B.i, nothing in this Consent Decree precludes the United States and/or the Plaintiff-Intervenors from seeking from EWV and ERI injunctive relief, penalties, or other appropriate relief for violations by EWV and ERI of the Applicable NSR/PSD Requirements resulting from construction or modification that:

(1) commenced prior to or commences after the Date of Lodging of the Consent Decree for pollutants or units not covered by the Consent Decree; or (2) commences after the Date of Lodging of the Consent Decree for units covered by this Consent Decree, except for construction and/or modification required by this Consent Decree.

iv. Evaluation of Applicable PSD/NSR Requirements Must Occur. Increases in emissions from units covered by this Consent Decree, where the increases result from the Post-Lodging construction or modification of any units within the Covered Refineries, are beyond the scope of the release in Paragraph 68.B.i, and EWV and ERI must evaluate any such increases in accordance with the Applicable PSD/NSR Requirements.

C. New Source Performance Standards Subparts A and J.

i. Resolution of Liability. With respect to emissions of the following pollutants from the following units, for violations of the Applicable NSPS Subparts A and J Requirements, entry of this Consent Decree shall resolve all civil liability of EWV and ERI to the United States and the Plaintiff-Intervenors from the date that the claims of the United States and the Plaintiff-Intervenors accrued through the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
All ERI heaters and boilers	SO ₂	Date of Lodging
All EWV heaters and boilers	SO ₂	December 31, 2006

ii. Reservation of Rights: Release for NSPS Violations Occurring After the Date of Lodging Can be Rendered Void. Notwithstanding the resolution of liability in Paragraph 68.C.i, the release of liability by the United States and the Plaintiff-Intervenors to EWV and ERI for violations of any Applicable NSPS Subparts A and J Requirement that occurred between the Date of Lodging and the Post-Lodging Compliance Dates shall be rendered void if EWV and ERI materially fails to comply with the obligations and requirements of Paragraphs 13 - 16; provided however, that the release in Paragraph 68.C.i. shall not be rendered void if EWV and ERI remedies such material failure and pays any stipulated penalties due as a result of such material failure.

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

D. LDAR and Benzene Waste NESHAP.

i. Resolution of Liability. Entry of this Consent Decree shall resolve all civil liability of EWV and ERI to the United States and the Plaintiff-Intervenors for violations of the following statutory and regulatory requirements that occurred prior to the Date of Entry of the Consent Decree and that may continue up to the date EWV and ERI completes its LDAR obligations under Paragraphs 18.C.i and/or its Benzene Waste NESHAP obligations under Paragraphs 17.C and 17.D (if applicable):

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

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

c. Any applicable state regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified in Paragraphs 68.D.

ii. Reservation of Rights. Except as specifically provided in this Paragraph 68.D.ii, and notwithstanding the resolution of liability in Paragraphs 68.D.i, nothing in this Consent Decree precludes the United States and/or Plaintiff-Intervenors from seeking from EWV and/or ERI, as applicable:

(a) injunctive and/or other equitable relief for violations of Benzene Waste NESHAP and/or LDAR that (A) commenced prior to the Date of Entry of this Consent Decree and continued after the Date of Entry provided such violations are not identified by EWV and ERI under Paragraphs 17.C., 17.D. and 18.C.i; or (B) commenced after the Date of Entry of the Consent Decree; or

(b) civil penalties for violations of Benzene Waste NESHAP and/or LDAR that (A) commenced prior to the Date of Entry of this Consent Decree and continued after the Date of Entry provided such violations are not identified by EWV and ERI under Paragraphs 17.C., 17.D. and 18.C.i; or (B) commenced after the Date of Entry of the Consent Decree.

E. NSPS, Subpart QQQ,

Newell, West Virginia

i. EWV and EPA have entered into a Consent Agreement and Final Order (Docket No. CAA-03-2003-0196) and an Administrative Compliance Order by Consent (Docket No. CAA-03-2003-0197DA). See Appendix D. The Consent Agreement and Final Order (“CAFO”) and Administrative Compliance Order by Consent (“ACO”) are incorporated herein by reference and are fully enforceable under this Consent Decree.

ii. Entry of this Consent Decree shall resolve all civil liability of EWV to the United States and WVDEP for each violation alleged in the CAFO and ACO from July 19, 1997, to and through the compliance dates for each violation set forth in the ACO. Notwithstanding the foregoing, the respective release(s) for each violation shall be rendered void if EWV materially fails to comply with the obligations in either the CAFO or ACO with respect to such violation; provided however, that the release in this Paragraph 68.E.. shall not be rendered void if EWV remedies such material failure and pays any stipulated penalties due as a result of such material failure.

ERI Vicksburg

i. Entry of this Consent Decree shall resolve all civil liability of ERI to the United States and the Plaintiff-Intervenors for violations of the New Source Performances Standards, Subpart QQQ that occurred prior to the Date of Entry of the Consent Decree and that may continue up to the date ERI completes its NSPS, Subpart QQQ obligations under Paragraphs 24. Notwithstanding the foregoing, the release(s) for each violation shall be rendered void if ERI materially fails to comply with the obligations in Paragraph 24; provided however, that the release in this Paragraph 68.E. shall not be rendered void if ERI remedies such material failure and pays any stipulated penalties due as a result of such material failure.

F. Flaring Devices. Entry of this Consent Decree shall resolve all civil liability of EWV and ERI to the United States and the States of West Virginia and Mississippi for violations of EPCRA or Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), from January 1, 1997, through December 31, 2002, involving incidents identified and reported to EPA as required by paragraph 15 of this Consent Decree.

G. ERI Permit Consolidation. Entry of this Consent Decree shall resolve all civil liability of ERI to the United States and the State of Mississippi that arises solely as a result of the consolidation of the

refinery and terminal into “one source” for purposes of the Clean Air Act, as described in Paragraph 19.D.

H. Claim/Issue Preclusion. In any subsequent administrative or judicial proceeding initiated by the United States or the Plaintiff-Intervenors for injunctive relief, penalties, or other appropriate relief relating to EWV and ERI for violations of the PSD/NSR, NSPS, NESHAP, and/or LDAR requirements, not identified in Paragraph 68 of the Consent Decree and/or the Complaint.

a. EWV and ERI shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, or claim-splitting. Nor may EWV and ERI assert, or maintain, any other defenses based upon any contention that the claims raised by the United States or the Plaintiff-Intervenors in the subsequent proceeding were or should have been brought in the instant case. Nothing in the preceding sentences is intended to affect the ability of EWV and ERI to assert that the claims are deemed resolved by virtue of this Paragraph 68 of the Consent Decree.

b. The United States and Plaintiff-Intervenors may not assert or maintain that this Consent Decree constitutes a waiver or determination of, or otherwise obviates, any claim or defense whatsoever, or that this Consent Decree constitutes acceptance by EWV and ERI of any interpretation or guidance issued by EPA related to the matters addressed in this Consent Decree.

I. Imminent and Substantial Endangerment. Nothing in this Consent Decree shall be construed to limit the authority of the United States, West Virginia, and Mississippi to undertake any action against any person, including EWV and ERI, to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

XVII. GENERAL PROVISIONS

69. **Other Laws.** Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve EWV and/or ERI, as applicable, of its obligations to comply with all applicable federal, state and local laws and regulations. Subject to Paragraph 68, nothing contained in this Consent Decree shall be construed to prevent or limit the rights of the United States or West Virginia or Mississippi to seek or obtain other remedies or sanctions available under other federal, state or local statutes or regulations, by virtue of EWV and/or ERI's, as applicable, violation of the Consent Decree or of the statutes and regulations upon which the Consent Decree is based, or for EWV and/or ERI's, as applicable, violations of any applicable provision of law, other than the specific matters resolved herein. This shall include the right of the United States or West Virginia or Mississippi to invoke the authority of the Court to order EWV and/or ERI's, as applicable, compliance with this Consent Decree in a subsequent contempt action.

70. **Post-Permit Violations.** Nothing in this Consent Decree shall be construed to prevent or limit the right of the United States, West Virginia, or Mississippi to seek injunctive or monetary relief for violations of permits issued as a result of the procedure required under Paragraph 19 of this Decree; provided however, that with respect to monetary relief, the United States, West Virginia or Mississippi must elect between filing a new action for such monetary relief or seeking stipulated penalties under this Consent Decree, if stipulated penalties also are available for the alleged violation(s).

71. **Failure of Compliance.** The United States, West Virginia or Mississippi do not, by their consent to the entry of Consent Decree, warrant or aver in any manner that EWV and ERI's complete compliance with the Consent Decree will result in compliance with the provisions of the CAA, or applicable state pollution control acts. Notwithstanding the review or approval by EPA, the WVDEP or MDEQ of any plans, reports, policies or procedures formulated pursuant to the Consent Decree, EWV and ERI shall remain solely responsible for compliance with the terms of the Consent Decree, all

applicable permits, and all applicable federal, state and local laws and regulations, except as provided in Section XIV (Force Majeure).

72. **Service of Process.** EWV and ERI hereby agree to accept service of process by mail with respect to all matters arising under or relating to the Consent Decree and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to, service of a summons. The persons identified by EWV and ERI at Paragraph 77 (Notice) are authorized to accept service of process with respect to all matters arising under or relating to the Consent Decree.

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

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

75. **Public Documents.** All information and documents submitted by EWV and ERI to the Applicable Federal and State Agencies pursuant to this Consent Decree shall be subject to public inspection in accordance with the respective statutes and regulations that are applicable to EPA, WVDEP, and MDEQ, unless subject to legal privileges or protection or identified and supported as business confidential in accordance with the respective state or federal statutes or regulations.

76. **Public Notice and Comment.** The Parties agree to the Consent Decree and agree that the Consent Decree may be entered upon compliance with the public notice procedures set forth at 28 C.F.R. § 50.7, and upon notice to this Court from the United States Department of Justice requesting entry of the Consent Decree. The United States reserves the right to withdraw or withhold its consent to the Consent Decree if public comments disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate.

77. **Notice.** Unless otherwise provided herein, notifications to or communications between the Parties shall be deemed submitted on the date they are postmarked and sent by U.S. Mail, postage pre-paid, except for notices under Section XIV (Force Majeure) and Section XV (Retention of Jurisdiction/Dispute Resolution) which shall be sent by overnight mail or by certified or registered mail, return receipt requested. Each report, study, notification or other communication of EWV and ERI shall be submitted as specified in this Consent Decree, with copies to EPA Headquarters and the Applicable EPA Region and the Applicable State Agency. If the date for submission of a report, study, notification or other communication falls on a Saturday, Sunday or legal holiday, the report, study, notification or other communication will be deemed timely if it is submitted the next business day. Except as otherwise provided herein, all reports, notifications, certifications, or other communications required or allowed under this Consent Decree to be submitted or delivered to the United States, EPA, the State(s), EWV and ERI shall be addressed as follows:

As to the United States:

Chief
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Reference Case No. 90-5-2-1-06064/1

As to EPA:

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

Chief, Air Enforcement Branch
Air Protection Division (3AP12)
U.S. Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, PA 19103

with a hard copy to

Director, Air Enforcement Division
Office of Regulatory Enforcement
c/o Matrix Environmental & Geotechnical Services
215 Ridgedale Avenue
Florham Park, NJ 07932

and an electronic copy to

neichlin@matrixengineering.com
Jorquera.mario@epa.gov
Jackson.james@epa.gov
Foley.patrick@epa.gov

As to the Applicable State Authorities:

The State of West Virginia

Director
West Virginia Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, West Virginia 25304

The State of Mississippi:

Mississippi Commission on Environmental Quality
Chief, Environmental Compliance & Enforcement Division
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289

As to the Applicable State Agencies:

West Virginia Department of Environmental Protection
Division of Air Quality
Northern Panhandle Regional Office
1911 Warwood Avenue
Wheeling, West Virginia 26003

Mississippi Commission on Environmental Quality
Chief, Environmental Compliance & Enforcement Division
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289

As to EWW

Neil Stanton
Ergon-West Virginia, Inc.
P.O. Box 356
Newell, WV 26050
neil.stanton@ergon.com

As to ERI:

Ken Dillard
Ergon Refining, Inc.
2611 Haining Road

Vicksburg, Mississippi 39181
ken.dillard@ergon.com

with copies to:

Paul W. Young, Jr., P.E., CSP
P.O. Box 1639
Jackson, MS 32915-1639
paul.young@ergon.com

LeAnn M. Johnson-Koch, Esquire
Piper Rudnick, LLP
1200 19th Street, NW
Washington, DC 20036
leann.johnson@piperrudnick.com

Any party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address. In addition, the nature and frequency of reports required by the Consent Decree may be modified by mutual consent of the Parties. The consent of the United States to such modification must be in the form of a written notification from the Department of Justice, but need not be filed with the Court to be effective.

78. **Approvals.** All EPA approvals or comments required under this Decree shall come from the Director, Air Enforcement Division, Office of Regulatory Enforcement, Office of Enforcement and Compliance Assurance, United States Environmental Protection Agency at the address listed in Paragraph 77 (Notice). All Plaintiff-Intervener approvals shall be sent from the offices identified in Paragraph 77.

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

80. **Modification.** The Consent Decree contains the entire agreement of the Parties and shall not be modified by any prior oral or written agreement, representation or understanding. Prior drafts of the Consent Decree shall not be used in any action involving the interpretation or enforcement of the Consent Decree. Non-material modifications to this Consent Decree shall be in writing, signed by the Parties, but need not be filed with the Court. Material modifications to this Consent Decree shall be in writing, signed by the Parties, and shall be effective upon filing with the Court. Specific provisions in this Consent Decree that govern specific types of modifications shall be effective as set forth in the specific provision governing the modification.

XVIII. TERMINATION

81. A. Provisions of this Consent Decree relating to EWV and/or ERI, as applicable, shall be subject to termination upon motion by the United States or EWV and/or ERI (under the conditions identified in Paragraph 81.C). EWV and/or ERI, as applicable, must have satisfied all of the following requirements of this Consent Decree:

- i. installation of control technology systems as specified in this Consent Decree;
- ii. achieving compliance with all provisions contained in this Consent Decree;
- iii. paying all penalties and other monetary obligations due under the terms of the Consent Decree;
no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States, West Virginia, or Mississippi;
- iv. the completion of the projects set forth in Paragraphs 24 - 25;
- v. the receipt of permits incorporating the surviving emission limits and standards established under Section V;

- vi. EPA's receipt of the first calendar quarterly progress report following the conclusion of the operation for at least one year of each unit in compliance with the emission limits established herein; and
- vii. EWV and ERI has certified compliance and completion pursuant to Paragraph 81.A.i-vi and 81.B.i.-iv, to the United States and the Applicable State Agency in writing.

B. Certification of Completion. EWV and ERI may certify completion of one or more parts of the Consent Decree provided all of the related requirements have been satisfied, as follows:

- i. Paragraphs 11-12: Heaters and Boilers;
- ii. Paragraph 14-16: Flaring Devices;
- iii. Paragraph 17: Benzene NESHAP;
Paragraph 18: Leak Detection and Repair
- iv. Section VIII – Environmentally Beneficial Projects

Within 180 days after EWV and/or ERI, as applicable, concludes that one or more parts of the Paragraph 81.B.i.-iv. have been completed, EWV and/or ERI, as applicable, may submit a written report to the Parties listed in Paragraph 77 (Notice) describing the activities undertaken and certifying that the applicable Paragraphs have been completed in full satisfaction of the requirements of this Consent Decree, and that EWV and/or ERI, as applicable, is in substantial and material compliance with all of the other requirements of the Consent Decree. The report shall contain the following statement, signed by a responsible corporate official of EWV and/or ERI, as applicable:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Within 90 days after receipt of above certification, EPA, after reasonable opportunity to review and comment by the State(s), shall notify EWV and/or ERI, as applicable, whether the requirements set forth in the applicable Paragraphs have been completed in accordance with this Consent Decree. The parties recognize that ongoing obligations under such Paragraphs remain and necessarily continue (e.g., reporting, recordkeeping, training, auditing requirements), and that EWV's and/or ERI's, as applicable, certification is that it is in current compliance with all such obligations. If EPA concludes that the requirements have not been fully complied with, the EPA shall notify EWV and/or ERI, as applicable, as to the activities that must be undertaken to complete the applicable Paragraphs of the Consent Decree. EWV and/or ERI, as applicable, shall perform all activities described in the notice, subject to its right to invoke the dispute resolution procedures set forth in Section XV (Retention of Jurisdiction/Dispute Resolution). If EPA concludes that the requirements of the applicable Paragraphs have been completed in accordance with this Consent Decree, EPA will so certify in writing to EWV and/or ERI, as applicable. This certification shall constitute the certification of completion of the applicable Paragraphs for purposes of this Consent Decree. Nothing in Paragraph 81.B shall preclude the United States or the States of West Virginia or Mississippi from seeking stipulated penalties for a violation of any of the requirements of the Consent Decree regardless of whether a Certification of Completion has been issued with respect to Paragraph 81.B i.-iv of the Consent Decree. In addition, nothing in Paragraph 81.B shall permit EWV and/or ERI, as applicable, to fail to implement any ongoing obligations under the Consent Decree regardless of whether a Certification of Completion has been issued with respect to Paragraph 81.B i.-iv of the Consent Decree.

C. Unless, within 120 days of receipt of the certification required by Paragraph 81.A.vii, either the United States or the Applicable State Agency objects in writing with specific reasons, the Court may upon motion by EWV and/or ERI, as applicable, order that this Consent Decree be terminated. If either the United States or the Applicable State Agency objects to the certification by EWV and/or ERI, as applicable, then the matter shall be submitted to the Court for resolution under Section XV (Retention of Jurisdiction/Dispute Resolution) of this Consent Decree. In such case, EWV and/or ERI, as applicable, shall bear the burden of proving that this Consent Decree should be terminated.

XIX. SIGNATORIES

82. Each of the undersigned representatives certifies that he/she is fully authorized to enter into the Consent Decree on behalf of such Parties, and to execute and to bind such Parties to the Consent Decree.

Dated and entered this _____ day of _____, 2003.

UNITED STATES DISTRICT JUDGE

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-West Virginia Inc. et al, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

Date: _____

THOMAS L. SANSONETTI
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

Date: _____

RICHARD GLADSTEIN
Senior Counsel
Environmental Enforcement Section
Environment and Natural Resources
Division
United States Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-West Virginia, Inc. et al., subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY:

Date: _____

JOHN PETER SUAREZ
Assistant Administrator for
Enforcement and Compliance Assurance
United States Environmental
Protection Agency
Washington, D.C. 20460

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-West Virginia, Inc. et al., subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF-INTERVENOR THE WEST
VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Date: _____

JOHN A. BENEDICT
Director
West Virginia Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, West Virginia 25304

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-Refining, Inc. et al., subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF-INTERVENOR THE
MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

Date: _____

CHARLES H. CHISOLM
Executive Director
Mississippi Commission on Environmental Quality
2380 Highway 80 West
Jackson, MS 39204

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-West Virginia, Inc.

FOR DEFENDANT Ergon Refining, Inc.

Date: _____

H. DON DAVIS
Executive Vice-President, Manufacturing and Planning
Ergon Refining, Inc.

Date: _____

LEANN M. JOHNSON-KOCH
Piper Rudnick LLP
1200 Nineteenth Street, N.W.
Washington, D.C. 20036-2412

ATTORNEY FOR ERGON REFINING, INC.

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. EWV and ERI-West Virginia, Inc.

FOR DEFENDANT Ergon-West Virginia, Inc.

Date: _____

LEE LAMPTON
President of Operations
Ergon-West Virginia, Inc.

Date: _____

LEANN M. JOHNSON-KOCH
Piper Rudnick LLP
1200 Nineteenth Street, N.W.
Washington, D.C. 20036-2412

ATTORNEY FOR ERGON-WEST VIRGINIA,
INC.

**APPENDIX A
(LOGIC DIAGRAM FOR PARAGRAPH 15)**

ALL FLARING INCIDENTS

Was the Root Cause:
- error resulting from careless operation by the personnel charged with the responsibility for the SRU, NaHS or Upstream Process Units? Or
- equipment failure due to a failure by EWV and ERI EWV and ERIn to operate and maintain

yes



Paragraph 37 applies except in cases of Force Majeure

No

Did the Flaring incident:
- result in emissions of SO₂ at a rate greater than 20 lbs/hr continuously for three consecutive hours and no scheduled maintenance exception?
or
- cause the total number of Flaring Incidents in a rolling 12 month period to exceed 5?

yes



Paragraph 37 applies with caveats set forth in Paragraph 20.C.ii

NO

Is this the first time for the Root Cause of this Flaring Incident?

Is the Root Cause on the list of agreed upon Malfunctions?

yes



STOP

NO



Was the Root Cause sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice?

NO

Paragraph 37.d applies with caveats set forth in Paragraph 17.C.i.c.2

Implement Corrective Action Pursuant

to Paragraph 15.B

Establish and update a list of agreed-upon Malfunctions

Yes



➤ STOP

APPENDIX B
SUMMARY OF REPORTS, PLANS AND CERTIFICATIONS FOR THE
BENZENE WASTE NESHAP ENHANCED PROGRAM PROVISIONS
OF PARAGRAPH 17 OF THE CONSENT DECREE

APPENDIX C

SUMMARY OF REPORTS, PLANS AND CERTIFICATIONS FOR THE
LDAR ENHANCED PROGRAM PROVISIONS
OF PARAGRAPH 18 OF THE CONSENT DECREE

APPENDIX D

EWV ADMINISTRATIVE COMPLIANCE ORDER ON CONSENT (No. CAA-03-2003-0197DA)

EWV CONSENT AGREEMENT AND FINAL ORDER (No. CAA-03-2003-0196)

APPENDIX E

SCHEDULE AND STATEMENT OF WORK FOR SUPPLEMENTAL ENVIRONMENTAL PROJECT(S)

Ergon Refining, Inc.Ê

Vicksburg Volunteer Fire Department.

Make modifications to and/or purchase equipment for the Vicksburg Volunteer Fire Department to convert a former mill into a fire/emergency response training facility and/or to provide equipment and training tools for fire and emergency response. The modifications to the facility could include the construction of a stairway or other physical changes to the former mill for training purposes and/or the purchase of fire/emergency response training equipment, which may include protective gear for first responders. This project will ensure that the fire departments in and around the ERI refinery have an adequate training facility to prepare their personnel for firefighting and emergency response incidents, including industrial emergencies. ERI's in-house engineering and maintenance services companies may be used to perform any or all of the design and construction aspects of this project.

Ergon-West Virginia, Inc.Ê

Newell Volunteer Fire Department

EWV will purchase various equipment for the Newell Volunteer Fire Department, including protective gear for first responders, to support fire training, facilitate emergency planning and preparedness, and improve response to fire and industrial emergencies.