

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW MEXICO

UNITED STATES OF AMERICA, )  
 )  
 Plaintiff, )  
 )  
 and )  
 )  
 STATE OF NEW MEXICO, ) Civil No.  
 STATE OF MONTANA )  
 )  
 Plaintiff-Intervenors, )  
 )  
 v. )  
 )  
 NAVAJO REFINING COMPANY, L.P. , )  
 MONTANA REFINING COMPANY )  
 )  
 Defendants. )  
 \_\_\_\_\_ )

**CONSENT DECREE**

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## 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 State of New Mexico and the State of Montana ("Plaintiff-Intervenors") allege upon information and belief that defendants Navajo Refining Company, L.P. ("Navajo") and Montana Refining Company ("Montana Refining") have violated and/or continue to violate the requirements of the Clean Air Act, the New Mexico Air Quality Control Act, the Montana Clean Air Act, and the regulations and permits promulgated thereunder at Navajo's petroleum refineries in Artesia, New Mexico, and Lovington, New Mexico, and at Montana Refining's petroleum refinery in Great Falls, Montana (collectively "Covered Refineries");

WHEREAS, Navajo, Montana Refining, and their parent Holly Corporation ("Holly") approached federal and state authorities in an effort to resolve cooperatively the allegations and concerns raised;

WHEREAS, the United States specifically alleges that Navajo and Montana Refining 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 and fluid catalytic cracking unit catalyst regenerators for NO<sub>x</sub>, SO<sub>2</sub>, CO and PM;

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

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

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

WHEREAS, the United States also specifically alleges with respect to the Covered Refineries that, upon information and belief, Navajo and Montana Refining have been and/or continue to be in violation of the state implementation plans (“SIPs”) and other state rules adopted by the states in which the Covered Refineries are located to the extent that such plans or rules implement, adopt or incorporate the above-described Federal requirements;

WHEREAS, the State of New Mexico and the State of Montana have sought to intervene in this matter alleging violations of their respective applicable SIP provisions and other state rules incorporating and implementing the foregoing federal requirements;

WHEREAS, the New Mexico Environment Department (“NMED”) issued a compliance order to Navajo on May 10, 2001 (“May 10, 2001 NMED Compliance Order”) alleging numerous violations of emission limits at the fluid catalytic cracking unit at the Artesia Refinery, and issued another compliance order to Navajo on July 27, 2001 (“July 27, 2001 NMED Compliance Order”) alleging numerous violations of the Refinery MACT at 40 C.F.R. Part 63, Subpart CC;

WHEREAS, the May 10, 2001 NMED Compliance Order and the July 27, 2001 NMED Compliance Order are attached as Appendix A;

WHEREAS, Navajo and Montana Refining are wholly-owned subsidiaries of Holly;

WHEREAS, the United States, New Mexico, Montana, Navajo, Montana Refining, and Holly 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 oxide by approximately 245 tons; 2) sulfur dioxide by approximately 2350 tons; 3) volatile organic compounds by approximately 120 tons; and 4) particulate matter (“PM”) by approximately 102 tons;

WHEREAS, with respect to the provisions of Paragraph 20 (“Control of Acid Gas Flaring Incidents and Tail Gas Incidents”) of this Consent Decree, EPA maintains that “[i]t is the intent of the proposed standard [40 C.F.R. § 60.104] that hydrogen-sulfide-rich gases exiting the amine

regenerator [or sour water stripper gases] be directed to an appropriate recovery facility, such as a Claus sulfur plant," see Information for Proposed New Source Performance Standards: Asphalt Concrete Plants, Petroleum Refineries, Storage Vessels, Secondary Lead Smelters and Refineries, Brass or Bronze Ingot Production Plants, Iron and Steel Plants, Sewage Treatment Plants, Vol. 1, Main Text at 28;

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

WHEREAS, EPA recognizes that "Malfunctions," as defined in 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 practice for minimizing emissions during these periods;

WHEREAS, with respect to Paragraph 20 of the Consent Decree, Navajo and Montana Refining maintain that with respect to NSPS: (i) Flaring is not regulated with respect to sulfur dioxide emissions except for flares subject to 40 C.F.R. § 60.104(a)(1); and (ii) 40 C.F.R. § 60.104(a)(1) applies only to flares that are otherwise subject to NSPS and that are maintained to combust Acid Gases or Sour Water Stripper Gases on a continuous basis as a part of normal refinery operations;

WHEREAS, EPA recognizes that the combustion in a flare subject to 40 C.F.R. § 60.104(a)(1) of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions does not violate 40 C.F.R. § 60.104(a)(1);

WHEREAS, by entering into this Consent Decree Navajo and Montana Refining are committed to pro-actively resolving environmental concerns related to their operations, and Holly is committed to assist in these efforts;

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

WHEREAS, Navajo and Montana Refining have waived any applicable federal or state requirements of statutory notice of the alleged violations;

WHEREAS, Navajo and Montana Refining denied and continue to deny the violations alleged in the Complaint, the May 10, 2001 NMED Compliance Order, and the July 27, 2001 NMED Compliance Order, and maintain that they have been and remain in compliance with all applicable statutes, regulations and permits and are not liable for civil penalties and injunctive relief. However, in the interest of settlement and to accomplish their objectives of cooperatively reconciling the goals of the United States, New Mexico, Montana, Navajo, and Montana Refining under the Clean Air Act and the corollary state statutes, Navajo and Montana Refining have agreed to undertake the installation of air pollution control equipment and enhancements to their air pollution management practices at the three Covered Refineries to reduce air emissions;

WHEREAS, notwithstanding the foregoing reservations, the Parties and Holly agree that:  
(a) settlement of the matters set forth in the complaint (filed herewith), the May 10, 2001 NMED

Compliance Order, and the July 27, 2001 NMED Compliance Order, is in the best interests of the Parties, Holly, and the public; and (b) entry of the Consent Decree without litigation is the most appropriate means of resolving this matter;

WHEREAS, the Parties and Holly 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, the May 10, 2001 NMED Compliance Order, and the July 27, 2001 NMED Compliance Order, 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 and Holly, 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 and Holly pursuant to 28 U.S.C. §§ 1331, 1345 and 1355. In addition, this Court has jurisdiction over the subject matter of this action pursuant to Sections 113(b) and 167 of the CAA, 42 U.S.C. § 7413(b) and 7477. The United States' complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against Navajo and Montana Refining 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, Section 305 of the CAA, 42 U.S.C. § 7605.

2. Venue is proper in the District of New Mexico pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c), and 1395(a). Navajo, Montana Refining, and Holly consent to the personal jurisdiction of this Court, waive any objections to venue in this District, and do not object to the intervention of New Mexico and Montana in this action.

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

## **II. APPLICABILITY AND BINDING EFFECT**

4. The provisions of the Consent Decree shall apply to the Artesia Refinery, the Lovington Refinery, and the Great Falls Refinery. The provisions of the Consent Decree shall be binding upon the United States, the Plaintiff-Intervenors, Holly and its officers, successors and assigns, Navajo and its officers, successors, and assigns, and Montana Refining and its officers, successors, and assigns.

5. Navajo, Montana Refining, and Holly 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, Navajo agrees that its Artesia and Lovington Refineries are covered by this Consent Decree, and Montana Refining agrees that its Great Falls Refinery is covered by this Consent Decree. Effective from the Date of Lodging of the Consent Decree, Navajo or Montana Refining, as applicable, 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 any Covered Refinery and shall provide a

copy of the Consent Decree to any successor in interest. Navajo or Montana Refining, as applicable, shall notify the United States, the State of New Mexico, and the State of Montana in accordance with the notice provisions set forth in Paragraph 91 (Notice), of any successor in interest at least thirty (30) days prior to any such transfer.

7. Navajo or Montana Refining, 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, any Covered Refinery upon the execution by the transferee of a modification to the Consent Decree, which makes the terms and conditions of the Consent Decree that apply to such Covered Refinery applicable to the transferee. The Parties shall file that modification with the Court promptly upon such transfer. In the event of any such transfer of ownership or other interest in any Covered Refinery, Navajo or Montana Refining, as applicable, shall be released from the obligations and liabilities of this Consent Decree provided that, at the time of such transfer, the transferee has the financial and technical ability to assume and has contractually agreed with Navajo or Montana Refining, as applicable, to assume these obligations and liabilities.

8. Navajo and Montana Refining 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, Navajo and Montana Refining also shall provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that Navajo or Montana Refining already has retained to perform the work

required under this Consent Decree. Copies of the Consent Decree do not need to be supplied to firms who are retained to supply materials or equipment to satisfy requirements under this Consent Decree.

### **III. OBJECTIVES**

9. It is the purpose of the Parties and Holly in this Consent Decree to further the objectives of the federal Clean Air Act, the New Mexico Air Quality Control Act, and the Montana Clean Air Act.

### **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 a 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

Appendix B to the Consent Decree. To the extent that, during the duration of the Consent Decree, any Covered Refinery utilizes AG Flaring Devices other than those specified in Appendix B for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree. The heaters and boilers at the Great Falls Refinery that currently are used to combust SWS gas shall not be deemed AG Flaring Devices for purposes of 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<sub>x</sub> Control Technology” shall mean NO<sub>x</sub> control technology, other than current or Next Generation Ultra Low NO<sub>x</sub> Burners (“ULNBs”), that achieves an emission rate of 0.060 lb/mmBTU or less.

F. “Applicable Federal and State Agencies” shall mean, with respect to the Artesia and Lovington Refineries, EPA’s Office of Regulatory Enforcement, EPA’s Region 6, and the NMED; and with respect to the Great Falls Refinery, EPA’s Office of Regulatory Enforcement, EPA’s Region 8, and the Montana DEQ;

G. "Artesia Refinery" shall mean the refinery owned and operated by Navajo in Artesia, New Mexico.

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

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

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

K. "Controlled Heaters and Boilers" shall mean the heaters and boilers that are listed in Appendix C.

L. "Covered Refineries" shall mean the refineries that are subject to the requirements of this Consent Decree: the Artesia Refinery, the Great Falls Refinery, and the Lovington Refinery.

M. "CO" shall mean carbon monoxide.

N. "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 District of New Mexico.

O. "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.

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

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

R. "Flaring Device" shall mean either an AG and/or an HC Flaring Device.

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

T. “Great Falls Refinery” shall mean the refinery owned and operated by Montana Refining in Great Falls, Montana.

U. “Holly” shall mean the Holly Corporation, its successors and assigns, and its officers, directors, and employees in their capacities as such.

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

W. “Hydrocarbon Flaring Device” or “HC Flaring Device” shall mean, a 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 and/or Tail Gas. The HC Flaring Devices currently in service at the Covered Refineries are identified in Appendix B to the Consent Decree. To the extent that, during the duration of the Consent Decree, any Covered Refinery utilizes HC Flaring Devices other than those specified in Appendix B for the purpose of combusting any excess of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas, those HC Flaring Devices shall be covered under this Consent Decree.

X. “Hydrocarbon Flaring Incident” or “HC Flaring Incident” shall mean the continuous or intermittent flaring of refinery-generated gases, except for Acid Gas or Sour Water Stripper Gas or Tail 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.

Y. “Lovington Refinery” shall mean the refinery owned and operated by Navajo in Lovington, New Mexico.

Z. “Low NO<sub>x</sub> Combustion Promotor” shall mean a catalyst that is added to a FCCU or an RCCU that minimizes NO<sub>x</sub> emissions while maintaining its effectiveness as a combustion promotor.

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

BB. “Montana DEQ” shall mean the Montana Department of Environmental Quality and any successor departments or agencies of the State of Montana.

CC. “Montana Refining” shall mean the Montana Refining Company, its successors and assigns, and its officers, directors, and employees in their capacities as such.

DD. “Navajo” shall mean the Navajo Refining Company, L.P., its successors and assigns, and its officers, directors, and employees in their capacities as such.

EE. “NMED” shall mean the New Mexico Environment Department and any successor departments or agencies of the State of New Mexico.

FF. “Next Generation Ultra-Low NO<sub>x</sub> Burners” or “Next Generation ULNBs” shall mean those burners new to the market that are designed to achieve a NO<sub>x</sub> emission rate of 0.012 to 0.020 lb/mmBTU HHV when firing natural gas at 3% stack oxygen at full design load without air preheat.

GG. "NOx" shall mean nitrogen oxides.

HH. "NOx Additives" shall mean Low NOx Combustion Promotors and NOx Reducing Catalyst Additives.

II. "NOx Control Technology" shall mean Next Generation ULNBs or Alternative NOx Control Technology.

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

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

LL. "PM" shall mean particulate matter.

MM. "Parties" shall mean the United States, the Plaintiff-Intervenors, Navajo, and Montana Refining.

NN. "Plaintiff-Intervenors" shall mean the State of New Mexico and the State of Montana.

OO. "Pollutant Reducing Catalyst Additive" shall mean either a NOx Reducing Catalyst Additive or a SO<sub>2</sub> Reducing Catalyst Additive.

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

QQ. "Scheduled Maintenance" shall mean any shutdown of any emission unit or control equipment that Navajo or Montana Refining schedules at least fourteen (14) days in advance of the shutdown for the purpose of undertaking maintenance of such unit or control equipment.

RR. "Shutdown" shall mean the cessation of operation of equipment for any purpose.

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

TT. "SO<sub>2</sub> Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU or an RCCU to reduce SO<sub>2</sub> emissions by reduction and adsorption.

UU. "Startup" shall mean the setting in operation of equipment for any purpose.

VV. "SO<sub>2</sub>" shall mean sulfur dioxide.

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

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

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

- i. Combusted in a flare and results in 500 pounds or more of SO<sub>2</sub> emissions in any 24 hour period ; or
- ii. Combusted in a thermal incinerator and results in excess emissions of 500 pounds or more of SO<sub>2</sub> emissions in any 24-hour period. Only those time periods which are in excess of a SO<sub>2</sub> concentration of 250 ppm (rolling twelve-hour average) shall be used to determine the amount of excess SO<sub>2</sub> emissions from the incinerator.

Navajo and Montana Refining shall use engineering judgment and/or other monitoring data during periods in which the SO<sub>2</sub> continuous emission analyzer has exceeded the range of the instrument or is out of service.

ZZ. "Total Catalyst" shall mean all forms of catalyst added to the FCCU, including but not limited to base catalyst and equilibrium catalyst, but excluding Pollutant Reducing Catalyst Additive.

AAA. "Torch Oil" shall mean FCCU feedstock or light cycle oil that is combusted in the FCC regenerator to assist in starting up or restarting the FCCU.

BBB. "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 these refineries that produce gaseous or aqueous waste streams that are processed at amine contactors, amine scrubbers, or sour water strippers.

CCC. "Weight % Pollutant Reducing Catalyst Additive Rate" shall mean:

$$\frac{\text{Amount of Pollutant Reducing Catalyst Additive in Pounds per Day}}{\text{Amount of Total Catalyst added in Pounds per Day}} \times 100\%$$

## V. AFFIRMATIVE RELIEF/ENVIRONMENTAL PROJECTS

### 11. NOx Emissions Reductions from FCCUs.

A. **Summary.** Navajo and Montana Refining shall implement a program to reduce NOx emissions from Fluid Catalytic Cracking Units ("FCCUs") at the Artesia Refinery ("Artesia FCCU") and the Great Falls Refinery ("Great Falls FCCU") by the use of NOx Reducing Catalyst Additives and Low NOx Combustion Promotors at each of these FCCUs. Navajo and Montana Refining shall incorporate lower NOx emission limits into permits and will demonstrate future compliance with the lower emission limits through the use of CEMS.

### B. Optimization Period for Navajo.

**i. Overview of Optimization Period for Navajo.** In order to establish lower FCCU NOx emission limits at the Artesia FCCU, there shall be a NOx Reducing Catalyst Additive Optimization Period (“Optimization Period”) and a NOx Reducing Catalyst Additive Demonstration Period (“Demonstration Period”). During the Optimization Period, Navajo shall, in the following order: (1) establish an optimized Low NOx Combustion Promotor addition rate (“Optimized Addition Rate”) for use during the Demonstration Period; (2) run a series of short-term trials on all commercially-available NOx Reducing Catalyst Additives, up to a maximum of four; (3) select, with EPA approval, an EPA-Approved NOx Reducing Catalyst Additive to be used during the Demonstration Period; and (4) establish an Optimized Addition Rate for the EPA-Approved NOx Reducing Catalyst Additive to be used during the Demonstration Period.

**ii. Commencement of the Optimization Period.** The Optimization Period at the Artesia FCCU will commence by no later June 30, 2004.

**iii. Protocol for the Optimization Period.** By no later than 60 days prior to the commencement of the Optimization Period, Navajo shall submit to EPA and the NMED a protocol for the Optimization Period that describes, at a minimum, the methods that Navajo will use to calculate control effectiveness (pounds NOx reduced per pound of additive), cost effectiveness (dollars per ton of NOx reduced), baseline emissions, and percent additive added.

**iv. Baseline Data.** By no later than 30 days after the commencement of the Optimization Period, Navajo shall submit to EPA and NMED baseline data from the period between January 1, 2004, through June 30, 2004, for the Artesia FCCU that shall include, at a minimum, the following data on a daily average basis:

- a. Regenerator flue gas temperature;

- b. Coke burn rate;
- c. FCCU feed rate;
- d. FCCU feed API gravity;
- e. Percentage of each type of FCCU feed component (i.e. atmospheric gas oil, vacuum gas oil, atmospheric tower bottoms, vacuum tower bottoms, etc.);
- f. Percentage by volume of the FCCU feed that is hydrotreated;
- g. Total Catalyst addition rate;

- h. NOx Reducing Catalyst Additive, conventional combustion promotor addition rates, and/or Low NOx Combustion Promotor addition rates; and
- i. Hourly and daily SO<sub>2</sub>, NOx, CO and O<sub>2</sub> concentrations.

Commencing on January 2, 2004, Navajo shall also monitor and record, for a period of 30 days, the daily FCCU feed nitrogen content. If, after 30 days, the variability of the feed nitrogen content is less than one standard deviation from the mean, then Navajo may commence monitoring and recording the FCCU feed nitrogen content through daily sampling composited on a weekly basis for the remainder of the baseline period.

**v. Determining the Optimized Low NOx Combustion Promotor Addition Rate.**

Navajo shall comply with Section II of Appendix D in order to establish an Optimized Low NOx Combustion Promotor Addition Rate. By no later than 60 days prior to the commencement of the Optimization Period, Navajo shall notify EPA and the NMED in writing of which Low NOx Combustion Promotor it intends to use in the Optimization Period. During the 60 days prior to the commencement of the Optimization Period, Navajo will undertake the first step in the process of determining an Optimized Addition Rate for the Low NOx Combustion Promotor by reducing historical usage of conventional combustion promotor to the point that the addition rate of the conventional combustion promotor is the minimum necessary to retain effectiveness.

Thereafter, at the commencement of the Optimization Period, Navajo will replace its conventional combustion promotor with Low NOx Combustion Promotor in accordance with the protocol set forth in Section II of Appendix D, and shall comply with the terms of Section II of Appendix D until the Optimized Low NOx Combustion Promotor Addition Rate is established.

**vi. Selecting the NOx Reducing Catalyst Additive to be Used During the**

**Optimization Period.** The objective of this Paragraph 11.B.vi is to select the best-performing, commercially-available NOx Reducing Catalyst Additive for the Artesia FCCU.

a. Identification of Commercially-Available Products. By no later than 60 days before the commencement of the Optimization Period, Navajo shall notify EPA in writing of all of the NOx Reducing Catalyst Additives that are commercially-available for use in the Artesia FCCU. With this notification, Navajo shall submit to EPA for approval the identity of all commercially-available NOx Reducing Catalyst Additives, up to a maximum of four, that Navajo proposes to use for the short-term trials set forth in Paragraph 11.B.vi.b. A copy of this notification shall be submitted to the NMED. Unless, within 15 days prior to beginning the trials of the potential NOx Reducing Catalyst Additives, EPA objects to one or more of the products identified, Navajo shall commence the short-term trial period. If EPA objects to any of the proposed products, EPA and Navajo shall confer until agreement is reached on the identity of the products to be used during the trial period. The NOx Reducing Catalyst Additives selected for the trial runs shall be called the “EPA-Approved, Potential NOx Reducing Catalyst Additives.”

b. Short-Term Trials of Each EPA-Approved, Potential NOx Reducing Catalyst Additive. Navajo shall add, on a trial basis for a period of two weeks, each EPA-Approved, Potential NOx Reducing Catalyst Additive to the Artesia FCCU. Navajo shall commence the trial runs of each EPA-Approved, Potential NOx Reducing Catalyst Additive immediately after establishing, pursuant to Paragraph 11.B.v., the Optimized Low NOx Combustion Promotor Addition Rate. After completion of all two-week trial periods, Navajo shall submit to EPA for approval a report that sets forth the NOx Reducing Catalyst Additive that Navajo proposes to use

during the Demonstration Period based on performance capabilities. This report also shall set forth the reasons for this selection. A copy of this report shall be submitted to the NMED.

c. Selection of the EPA-Approved NOx Reducing Catalyst Additive. EPA may approve the NOx Reducing Catalyst Additive that Navajo proposes to use or may require Navajo to use a different product. The NOx Reducing Catalyst Additive selected after the trials occur and after EPA approves the final selection shall be called the “EPA-Approved NOx Reducing Catalyst Additive.” Disputes involving the selection of the EPA-Approved NOx Reducing Catalyst Additive shall be resolved in accordance with the dispute resolution provisions of the Consent Decree.

**vii. Determining the Optimized NOx Reducing Catalyst Additive Addition Rate.**

After selection of an EPA-Approved NOx Reducing Catalyst Additive, Navajo shall comply with Section III of Appendix D in order to establish an Optimized Addition Rate for use during the Demonstration Period.

**C. Optimization Period for Montana Refining.**

i. Overview of the Optimization Period for Montana Refining. In order to establish lower FCCU NOx emission limits at the Great Falls FCCU, there shall be an Optimization Period and a Demonstration Period. During the Optimization Period, Montana Refining shall: (1) determine whether the conversion from a conventional combustion promotor to a Low NOx Combustion Promotor at the Optimized Addition Rate set forth herein will be effective in continuing to promote combustion; (2) run short-term trials on two NOx Reducing Catalyst Additives to identify the best-performing product; and (3) select, with EPA-Approval, an EPA-Approved NOx Reducing Catalyst Additive to be used during the Demonstration Period.

ii. **Commencement of the Optimization Period.** The Optimization Period at the Great Falls FCCU will commence no later than 18 months after the Lodging of the Consent Decree.

iii. **Optimized Low NOx Combustion Promotor Addition Rate.** By no later than 60 days prior to the commencement of the Optimization Period, Montana Refining shall notify EPA and the Montana DEQ in writing of which Low NOx Combustion Promotor Montana Refining intends to use in the Optimization Period, and the method and frequency of addition. At the commencement of the Optimization Period, Montana Refining shall replace its conventional combustion promotor with Low NOx Combustion Promotor at a rate and frequency of addition that is the functional equivalent of the average rate of its use of conventional combustion promotor in the preceding three months. This functionally-equivalent rate shall be the Optimized Low NOx Combustion Promotor Addition Rate. During the Optimization Period, Montana Refining shall determine whether, at the Optimized Addition Rate, the Low NOx Combustion Promotor is effective by evaluating: (1) whether afterburn is controlled and regenerator temperature and combustion levels are adequately maintained; and (2) whether temperature excursions are brought under control adequately. If the Low NOx Combustion Promotor is not effective, Montana Refining shall not be required to use Low NOx Combustion Promotor during the Demonstration Period.

iv. **Selection of the NOx Reducing Catalyst Additive to be Used During the Optimization Period.** The objective of this provision is to select the best-performing, commercially-available NOx Reducing Catalyst Additive for the Great Falls FCCU.

a. **Identification of Commercially-Available Products.** By no later than 60 days before the commencement of the Optimization Period, Montana Refining shall notify EPA and the Montana DEQ in writing of two commercially-available NOx Reducing Catalyst Additives that

Montana Refining proposes to use for the short-term trials set forth in Paragraph 11.C.iv.b. Unless, within 15 days prior to beginning the trial of the potential NOx Reducing Catalyst Additives, EPA objects to one or more of the products identified, Montana Refining shall commence the short-term trial period. If EPA objects to any of the proposed products, EPA and Montana Refining shall confer until agreement is reached on the identity of the products to be used during the trial period. The NOx Reducing Catalyst Additives selected for trial runs shall be called the “EPA-Approved, Potential NOx Reducing Catalyst Additives.”

b. Short-Term Trials of Each EPA-Approved, Potential NOx Reducing Catalyst Additive. Montana Refining shall add, on a trial basis for a period of two weeks, each EPA-Approved, Potential NOx Reducing Catalyst Additive to the Great Falls FCCU. Montana Refining shall commence the trial runs of each EPA-Approved, Potential NOx Reducing Catalyst Additive immediately after determining, pursuant to Paragraph 11.C.iii., whether Low NOx Combustion Promotor is effective. After completion of the two-week trial periods, Montana Refining shall submit to EPA for approval a report that sets forth the NOx Reducing Catalyst Additive that Montana Refining proposes to use during the Demonstration Period based on performance capabilities. This report also shall set forth the reasons for this selection. A copy of this report shall be submitted to the Montana DEQ.

c. Selection of the EPA-Approved NOx Reducing Catalyst Additive. EPA may approve the NOx Reducing Catalyst Additive that Montana Refining proposes to use or may require Montana Refining to use a different product. The NOx Reducing Catalyst Additive selected after the trials occur and after EPA approves the final selection shall be called the “EPA-Approved NOx Reducing Catalyst Additive.” Disputes involving the selection of the EPA-Approved NOx

Reducing Catalyst Additive shall be resolved in accordance with the dispute resolution provisions of the Consent Decree.

v. **Optimized NOx Reducing Catalyst Additive Addition Rate.** The Optimized Addition Rate of the EPA-Approved NOx Reducing Catalyst Additive to be used during the Demonstration Period at the Great Falls FCCU shall be 2.0 Weight % NOx Reducing Catalyst Additive.

**D. Demonstration Period for Navajo and Montana Refining.**

i. **Commencement of NOx Additive Performance Demonstration.** Navajo and Montana Refining will demonstrate the performance of the EPA-Approved NOx Reducing Catalyst Additive and Low NOx Combustion Promotor (collectively, “NOx Additives”) over a twelve-month period to yield the lowest NOx concentration feasible from the FCCUs at the Optimized NOx Reducing Catalyst Additive Addition Rate and the Optimized Low NOx Combustion Promotor Addition Rate (collectively “Optimized NOx Additive Addition Rates”). During the Demonstration Period, Navajo and Montana Refining will add NOx Additives at the Optimized NOx Additive Addition Rates and in a manner that minimizes NOx emissions. Navajo will commence the Demonstration Period by no later than March 31, 2005. Montana Refining will commence the Demonstration Period by no later than 24 months after the Date of Lodging of this Consent Decree. The commencement of these Demonstration Periods may be delayed if Navajo and/or Montana Refining seeks in writing, and EPA approves in writing, additional time for selecting an EPA-Approved NOx Reducing Catalyst Additive or determining the Optimized NOx Additive Addition Rates.

ii. **Notification of Optimized NOx Additive Addition Rate and Compliance with Appendix D.** By no later than 30 days prior to beginning the Demonstration Period: (i) Navajo

will notify EPA and the NMED of the Optimized NOx Additive Addition Rates for the Artesia FCCU with an explanation and supporting data that demonstrates that the requirements of Appendix D have been met in establishing the Optimized NOx Additive Addition Rates; and (ii) Montana Refining will notify EPA and the Montana DEQ about whether the Low NOx Combustion Promotor was effective, and if not, an explanation and supporting data that demonstrates that it was ineffective.

**iii. Measuring NOx and O<sub>2</sub>.** During the Demonstration Period, Navajo and Montana Refining will determine the NOx and O<sub>2</sub> concentrations at the point of emission to the atmosphere by CEMS.

**iv. NOx Additive Performance Demonstration Report (“NOx Additive Demonstration Report”).** No later than 60 days after the completion of the Demonstration Period, Navajo and Montana Refining will report the results to the Applicable Federal and State Agencies (“NOx Additive Demonstration Report”). The NOx Additive Demonstration Report shall include, at a minimum, the NOx and O<sub>2</sub> CEMS data recorded during the twelve month Demonstration Period and each of the parameters required to be reported in Paragraph 11.B.iv, except for the daily FCCU feed nitrogen content, on a daily average basis for the twelve month Demonstration Period.

**E. Establishing FCCU NOx Emission Limits.**

**i. Navajo and Montana Refining NOx Emission Limits Proposals.** In each NOx Additive Demonstration Report, Navajo and Montana Refining shall propose, for the applicable FCCU, a concentration-based (ppmvd) NOx emission limit based on 3-hour rolling and 365-day rolling averages, corrected to 0% oxygen. Navajo and Montana Refining shall comply with the emission limits they each propose beginning immediately upon submission of the NOx Additive

Demonstration Report. Navajo and Montana Refining shall continue to comply with these limits unless and until they are required to comply with the emissions limits set by EPA pursuant to Paragraph 11.E.ii. Under no circumstances shall this emission limit for the Artesia FCCU be greater than a concentration-based limit that would be equivalent to 34.9 lb/hr.

**ii. EPA's NOx Emission Limits.** EPA will use the data collected about each FCCU during the baseline period, the Optimization Period, and the Demonstration Period, as well as all other available and relevant information, to establish limits for NOx emissions from the Artesia and Great Falls FCCUs. EPA may establish NOx concentration-based emission limits based on 3-hour rolling and 365-day rolling averages, each corrected to 0% oxygen. EPA will determine the limits based on: (i) the level of performance during the baseline, Optimization and Demonstration periods; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information. Under no circumstances shall this emission limit for the Artesia FCCU be greater than a concentration-based limit that would be equivalent to 34.9 lb/hr. EPA will notify Navajo and Montana Refining of its determination of the concentration-based NOx emissions limit and averaging times for each FCCU. Navajo and Montana Refining shall immediately (or within thirty (30) days, if EPA's limit is more stringent than the limit proposed by Navajo or Montana Refining) operate each FCCU so as to comply with the EPA-established emission limits. Disputes regarding the appropriate emission limits shall be resolved in accordance with the dispute resolution provisions of this Decree; provided however, that during the period of dispute resolution, Navajo and Montana Refining shall comply with the EPA-established limits.

**F. Demonstrating Compliance with EPA-Established FCCU NOx Emission Limits.**

By no later than December 31, 2003, for Navajo and no later than 12 months from the Date of Lodging for Montana Refining, Navajo and Montana Refining shall install and use a NOx and O<sub>2</sub>

CEMS to monitor performance of each FCCU during the baseline, Optimization, and Demonstration periods, and to report compliance with the terms and conditions of this Consent Decree. Navajo and Montana Refining shall make CEMS and process data available to the Applicable Federal and State Agencies upon demand as soon as practicable. Navajo and Montana Refining shall install, certify, calibrate, maintain, and operate all CEMS required by this Consent Decree in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendices B and F. These CEMS will be used to demonstrate compliance with emission limits.

**G. Hydrotreater Outages.** The 3-hour FCCU NO<sub>x</sub> emission limits established pursuant to this Paragraph 11 shall not apply during periods of hydrotreater outages at the Artesia and Great Falls Refineries, provided that Navajo and Montana Refining are maintaining and operating their FCCUs (including associated air pollution control equipment) in a manner consistent with good air pollution control practices for minimizing emissions in accordance with an EPA-approved good air pollution control practices plan. No later than one hundred and eighty (180) days after the Date of Lodging of this Consent Decree, Navajo and Montana Refining shall submit to EPA for approval a plan to minimize NO<sub>x</sub> emissions from their FCCUs (including associated air pollution control equipment) during hydrotreater outages. Copies of this plan shall be provided to the Applicable State Agencies. Navajo and Montana Refining shall comply with the plan at all times, including periods of startup, shutdown, and malfunction of the hydrotreater. Modifications to the plan shall be summarized in an annual submission to the Applicable Federal and State Agencies.

**12. SO<sub>2</sub> Emissions Reductions from FCCUs.**

**A. Summary.** Navajo and Montana Refining shall implement a program to reduce SO<sub>2</sub> emissions from their FCCUs by the installation and operation of one new Wet Gas Scrubber (“WGS”) at the Artesia FCCU and by the use of SO<sub>2</sub> Reducing Catalyst Additives at the Great Falls FCCU. Navajo and Montana Refining shall incorporate lower SO<sub>2</sub> emission limits into permits and will demonstrate future compliance with the lower emissions limits through the use of CEMS.

**B. Installation and Operation of WGS on the Artesia FCCU.** By no later than December 31, 2003, Navajo shall complete installation and shall begin operation of a WGS on emissions from the Artesia FCCU. Navajo shall design the WGS to achieve an SO<sub>2</sub> concentration of 25 ppmvd or lower on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each corrected to 0% oxygen. By no later than December 31, 2003, Navajo shall comply with an SO<sub>2</sub> concentration limit of 25 ppmvd or lower on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each corrected to 0% oxygen.

**C. Utilization of SO<sub>2</sub> Reducing Catalyst Additive at the Great Falls FCCU.**

**i. Overview of Selection and Demonstration Periods.** In order to establish lower FCCU SO<sub>2</sub> emission limits at the Great Falls FCCU, there shall be a SO<sub>2</sub> Reducing Catalyst Additive Selection Period (“Selection Period”) and a SO<sub>2</sub> Reducing Catalyst Additive Demonstration Period (“Demonstration Period”).

**ii. Selection Period.** By no later than 18 months after the Lodging of this Consent Decree, Montana Refining shall notify EPA and the Montana DEQ in writing of the SO<sub>2</sub> Reducing Catalyst Additive that Montana Refining proposes to use during the Demonstration Period. EPA may approve the SO<sub>2</sub> Reducing Catalyst Additive that Montana Refining proposes to use or may require Montana Refining to use a different product. The SO<sub>2</sub> Reducing Catalyst

Additive selected after EPA approval shall be called the “EPA-Approved SO<sub>2</sub> Reducing Catalyst Additive.” Disputes involving the selection of the EPA-Approved SO<sub>2</sub> Reducing Catalyst Additive shall be resolved in accordance with the dispute resolution provisions of the Consent Decree.

**iii. Demonstration Period.**

a. Commencement of SO<sub>2</sub> Reducing Catalyst Additive Performance Demonstration.

Montana Refining will demonstrate the performance of the EPA-Approved SO<sub>2</sub> Reducing Catalyst Additive over a twelve-month period to yield the lowest SO<sub>2</sub> concentration feasible from the Great Falls FCCU at an addition rate of 8.0 Weight % SO<sub>2</sub> Reducing Catalyst Additive (“Optimized Addition Rate”). During the Demonstration Period, Montana Refining will add SO<sub>2</sub> Reducing Catalyst Additives at the Optimized Addition Rate and in a manner that minimizes SO<sub>2</sub> emissions. Montana Refining will commence the Demonstration Period by no later than 24 months after the Date of Lodging of this Consent Decree. The commencement of this Demonstration Period may be delayed if Montana Refining seeks in writing, and EPA approves in writing, additional time for selecting an EPA-Approved SO<sub>2</sub> Reducing Catalyst Additive.

b. Continued Operation of Hydrotreater. Montana Refining shall not cease the operation of its hydrotreater during the Demonstration Period, except for Malfunctions or catalyst change-outs.

c. Measuring SO<sub>2</sub> and O<sub>2</sub>. During the Demonstration Period, Montana Refining will determine the SO<sub>2</sub> and O<sub>2</sub> concentrations at the point of emission to the atmosphere by CEMS.

d. SO<sub>2</sub> Reducing Catalyst Additive Performance Demonstration Report (“SO<sub>2</sub> Reducing Catalyst Additive Demonstration Report”). No later than 60 days after the completion of the Demonstration Period, Montana Refining will report the results to the Applicable Federal and

State Agencies (“SO<sub>2</sub> Reducing Catalyst Additive Demonstration Report”). The SO<sub>2</sub> Reducing Catalyst Additive Demonstration Report shall include, at a minimum, the SO<sub>2</sub> and O<sub>2</sub> CEMS data recorded during the twelve month Demonstration Period and the following:

- (1) Regenerator flue gas temperature;
- (2) Coke burn rate;
- (3) FCCU feed rate;
- (4) FCCU feed API gravity;
- (5) FCCU feed sulfur content;
- (6) Percentage of each type of FCCU feed component (i.e. atmospheric gas oil, vacuum gas oil, atmospheric tower bottoms, vacuum tower bottoms, etc.);
- (7) Percentage by volume of the FCCU feed that is hydrotreated;
- (8) Total Catalyst addition rate;
- (9) SO<sub>2</sub> Reducing Catalyst Additive addition rates; and
- (10) Hourly and daily SO<sub>2</sub>, NO<sub>x</sub>, CO and O<sub>2</sub> concentrations.

**iv. Establishing FCCU SO<sub>2</sub> Emission Limits at the Great Falls FCCU.**

a. Montana Refining SO<sub>2</sub> Emission Limits Proposals. In the SO<sub>2</sub> Reducing Catalyst Additive Demonstration Report, Montana Refining shall propose, for the Great Falls FCCU, a concentration-based (ppmvd) SO<sub>2</sub> emission limit based on 7-day rolling and 365-day rolling averages, each corrected to 0% oxygen. In proposing the 7-day rolling average limit, Montana Refining shall not consider any emissions during the Demonstration Period in which the hydrotreater was shut down. Montana Refining shall comply with the emission limits it proposes beginning immediately upon submission of the SO<sub>2</sub> Reducing Catalyst Additive Demonstration Report. Montana Refining shall continue to comply with these limits unless and until it is required to comply with the emissions limits set by EPA pursuant to Paragraph 12.C.iv.b.

b. EPA's SO<sub>2</sub> Emission Limits. EPA will use the data collected about the Great Falls FCCU during the Demonstration Period, as well as all other available and relevant information, to establish limits for SO<sub>2</sub> emissions from the Great Falls FCCU. EPA may establish SO<sub>2</sub> concentration-based emission limits based on 7-day rolling and 365-day rolling averages, each corrected to 0% oxygen. EPA will determine the limits based on: (i) the level of performance during the Demonstration Period; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information. EPA will notify Montana Refining of its determination of the concentration-based SO<sub>2</sub> emissions limit and averaging times for the FCCU. Montana Refining shall immediately (or within thirty (30) days, if EPA's limit is more stringent than the limit proposed by Montana Refining) operate its FCCU so as to comply with the EPA-established emission limits. Disputes regarding the appropriate emission limits shall be resolved in accordance with the dispute resolution provisions of this Decree; provided however, that during the period of dispute resolution, Montana Refining shall comply with the EPA-established limits.

**D. Demonstrating Compliance with FCCU SO<sub>2</sub> Emission Limits.** By no later than December 31, 2003, for Navajo, and no later than 12 months from the Date of Lodging for Montana Refining, Navajo and Montana Refining shall install and use a SO<sub>2</sub> and O<sub>2</sub> CEMS to monitor performance of each FCCU and to report compliance with the terms and conditions of this Consent Decree. Navajo and Montana Refining shall make CEMS and process data available to the Applicable Federal and State Agencies upon demand as soon as practicable. Navajo and Montana Refining shall install, certify, calibrate, maintain, and operate all CEMS required by this Consent Decree in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendices B and F. These CEMS will be used to demonstrate compliance with emission limits.

**E. Hydrotreater Outages.** The 7-day FCCU SO<sub>2</sub> emission limits established pursuant to Paragraph 12.C.iv. shall not apply during periods of hydrotreater outages at the Great Falls Refinery, provided that Montana Refining is maintaining and operating its FCCU (including associated air pollution control equipment) in a manner consistent with good air pollution control practices for minimizing emissions in accordance with an EPA-approved good air pollution control practices plan. No later than one hundred and eighty (180) days after the Date of Lodging of this Consent Decree, Montana Refining shall submit to EPA for approval a plan to minimize SO<sub>2</sub> emissions from its FCCU (including associated air pollution control equipment) during hydrotreater outages. Copies of this plan shall be provided to the Montana DEQ. Montana Refining shall comply with the plan at all times, including periods of startup, shutdown, and malfunction of the hydrotreater. Modifications to the plan shall be summarized in an annual submission to EPA and the Montana DEQ.

**13. PM Emissions Reductions from FCCUs.**

**A. General.** Navajo shall implement a program to reduce particulate matter (“PM”) emissions from the Artesia FCCU by the installation and operation of one new WGS. Montana Refining shall install and operate a third stage separator (“TSS”) or control technology equivalent in PM control effectiveness at the Great Falls FCCU if, during the life of this Consent Decree, PM emissions are greater than 15 pounds per hour.

**B. Installation and Operation of WGS on the Artesia FCCU.** By no later than December 31, 2003, Navajo shall complete installation and shall begin operation of a WGS on emissions from its FCCU. Navajo shall design the WGS to achieve an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average basis. By no later than December 31, 2003, Navajo shall comply with an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average basis.

**C. Demonstrating and Complying with a PM Limit at the Great Falls FCCU.** For PM emissions from its FCCU, Montana Refining shall either:

- (a) Demonstrate compliance with an emission limit of 15.0 pounds PM per hour by conducting a 3-hour performance test representative of normal operating conditions for PM emissions by December 31 of each calendar year beginning with December 31, 2001; provided however, that if any performance test undertaken pursuant to this Paragraph 13.C.(a) is not representative of normal operating conditions, Montana Refining shall conduct a subsequent performance test representative of normal operating conditions by no later than 90 days after the test that was not representative; or
- (b) If, during the life of this Consent Decree, any performance test representative of normal operating conditions undertaken pursuant to Paragraph 13.C.(a) fails to demonstrate compliance with a 15.0 lb/hr PM limit, Montana Refining shall complete installation and begin operation of a TSS or control technology equivalent in PM control effectiveness by no later than 24 months from the date of the performance test that demonstrated non-compliance. Thereafter, a PM limit for the Great Falls

FCCU shall be established as the higher of: (i) an emission limit of 15.0 pounds PM per hour demonstrated by conducting, by no later than 60 days after the commencement of the operation of a TSS or control technology equivalent in PM control effectiveness, a 3-hour performance test representative of normal operating conditions for PM emissions; or (ii) an emission limit proposed by Montana Refining, by no later than 150 days after the commencement of the operation of a TSS or control technology equivalent in PM control effectiveness, and thereafter established by EPA, based on the actual performance of the TSS or control technology equivalent in PM control effectiveness. Commencing in the first calendar year after the PM limit is established, Montana Refining shall conduct a 3-hour performance test representative of normal operating conditions for PM emissions by December 31 of each calendar year to demonstrate compliance. Nothing in this Paragraph 13.C.(b) shall require Montana Refining to install a TSS or control technology equivalent in PM control effectiveness if: (i) the cost effectiveness of controlling PM emissions below 15 lb/hr is greater than \$10,000 (annualized capital cost plus annual operating costs) per ton of PM removed; and (ii) Montana Refining submits a report to EPA and the Montana DEQ that establishes the cost ineffectiveness; and (iii) EPA and the Montana DEQ agree with Montana Refining regarding the cost ineffectiveness. Disputes arising under this Paragraph 13.C.(b) shall be resolved in accordance with the dispute resolution provisions of this Decree.

Montana Refining shall submit the results of the annual PM emissions compliance demonstration to EPA and the Montana DEQ. If a TSS or control technology equivalent in PM control effectiveness is required pursuant to this Paragraph 13.C, then by no later than sixty (60) days after the commencement of the operation of a TSS or control technology equivalent in PM control effectiveness, Montana Refining shall submit a certification of the commencement of this operation to EPA and the Montana DEQ.

**14. CO Emissions Reductions from FCCUs.**

**A. Summary.** Navajo and Montana Refining shall implement a program to reduce CO emissions from the Artesia and Great Falls FCCUs by the use of full combustion.

**B. Emissions Limits.** By no later than December 31, 2003, for Navajo, and by no later than twelve months from the Date of Lodging for Montana Refining, the Artesia FCCU and the Great Falls FCCU shall meet an emission limit of 500 ppmvd CO corrected to 0% O<sub>2</sub> on a 1-hour average basis and 100 ppmvd CO corrected to 0% O<sub>2</sub> on a 365-day rolling average basis.

**C. Demonstrating Compliance with Emission Limits.** By no later than December 31, 2003, for Navajo, and by no later than 12 months from the Date of Lodging for Montana Refining, Navajo and Montana Refining shall use a CO and O<sub>2</sub> CEMS to monitor compliance of each FCCU with the terms and conditions of this Consent Decree. Navajo and Montana Refining shall make CEMS and process data available to the Applicable Federal and State Agencies upon demand as soon as practicable. Navajo and Montana Refining shall install, certify, calibrate, maintain, and operate all CEMS required by this Consent Decree in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendix A and the applicable performance specification test of 40 C.F.R. Part 50 Appendices B and F. These CEMS will be used to demonstrate compliance with emission limits.

**15. NSPS Applicability of FCCU Regenerators.**

The FCCU Regenerators at the Artesia Refinery and the Great Falls Refinery shall be affected facilities, as that term is used in the Standards of Performance for New Stationary Sources (“NSPS”), 40 C.F.R. Part 60, and shall be subject to and comply with the requirements of NSPS Subparts A and J for each of the following pollutants by the following dates:

<u>Artesia FCCU</u>	SO <sub>2</sub>	December 31, 2003
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PM	December 31, 2003
CO	December 31, 2003
Opacity	December 31, 2003

<u>Great Falls FCCU</u>	SO <sub>2</sub>	36 Months from the Date of Lodging
	CO	12 Months from the Date of Lodging

**16. NOx Emissions Reductions from Heaters and Boilers.**

**A. Program Summary.** Navajo will implement an eight-year program to reduce NOx emissions from the heaters and boilers listed in Appendix C (“Controlled Heaters and Boilers”) by installing Next Generation Ultra Low-NOx Burners (“Next Generation ULNBs”) or Alternative NOx Control Technology, and demonstrating continuous compliance with lower emission limits through the use of source testing, CEMS, and/or parametric monitoring.

**B. Installation of NOx Control Technology.**

i. Next Generation ULNBs. Navajo shall install Next Generation ULNBs for all Controlled Heaters and Boilers listed in Appendix C, except for Artesia Boilers B-7 and B-8, pursuant to the schedule set forth in Appendix C. Navajo will install the new burners to achieve the lowest possible emissions of NOx.

ii. Artesia Boilers B-7 and B-8. Navajo shall design and install an Alternative NOx Control Technology that achieves a NOx emission rate of less than 0.06 lb/MMBtu, for Artesia Boiler B-7 by no later than December 31, 2002, and for Artesia Boiler B-8 by no later than December 31, 2003.

**C. Testing and Monitoring NOx Emissions from Controlled Heaters and Boilers.**

Navajo shall monitor the Controlled Heaters and Boilers to meet the requirements of Paragraph 16.B as follows:

- i. For heaters and boilers with a heat input capacity greater than 150 mmBTU/hr (HHV), Navajo shall install or continue to operate CEMS to measure NOx and O<sub>2</sub>

by no later than the date of the installation of the applicable NOx Control Technology on the heater or boiler. Navajo shall install, certify, calibrate, maintain, and operate all CEMS required by this Paragraph 16 in accordance with the requirements of 40 C.F.R. §§ 60.11, 60.13 and Part 60 Appendix A and the applicable performance specification test of 40 C.F.R. Part 50 Appendices B and F. These CEMS will be used to demonstrate compliance with emission limits. Navajo shall make CEMS and process data available to the Applicable Federal and State Agencies upon demand as soon as practicable;

- ii. For heaters and boilers with a heat input capacity of equal to or less than 150 mmBTU/hr (HHV) but greater than 100 mmBTU/hr (HHV), Navajo shall (a) install or continue to operate CEMS to measure NOx and O<sub>2</sub> by no later than the date of the installation of the applicable NOx Control Technology on the heater or boiler; or (b) submit for EPA approval, by no later than 60 days after the date of installation of the applicable NOx Control Technology on the heater or boiler, a proposal for monitoring based on operating parameters, including but not limited to, firebox temperature, air preheat temperature, heat input rate, and combustion O<sub>2</sub>; Navajo shall evaluate the necessity of using firebox or bridgwall temperatures and additional operating parameters and agrees to use such parameters as a means of monitoring performance where Navajo and EPA mutually-agree to their effectiveness; and
- iii. For heaters and boilers with a heat input capacity of equal to or less than 100 mmBTU/hr (HHV), Navajo shall, by no later than 60 days after the date of installation of the applicable NOx Control Technology, conduct an initial performance test. The results of this test shall be reported based upon the average of three (3) one hour testing periods and shall be used to develop representative operating parameters for each unit, which will be used as indicators of compliance.

**D. Establishing NOx Permit Limits for Heaters and Boilers.** Within 120 days after the start-up of the operation of any NOx Control Technology required by this Paragraph 16, Navajo shall submit a permit application to the NMED in which Navajo proposes NOx emission limits in lb/mmBtu on a 3-hour average basis. The proposed permit limits shall be based on actual performance as demonstrated by CEMS and performance tests, and 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 2002, Navajo shall submit a report to EPA and the NMED on December 31 of each calendar year about the progress of installation of NOx Control Technology required by this Paragraph 16 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 to date;
- (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 NOx Control Technology has been installed pursuant to this Paragraph.

**F. Heaters and Boilers at the Great Falls Refinery.** Montana Refining does not currently own or operate any heaters and boilers with a heat input capacity of 40 MMBtu/hr or higher. If, during the life of this Consent Decree, Montana Refining commences the operation of any heater or boiler with a heat input capacity of 40 MMBtu/hr or greater, Montana Refining shall install and operate Next Generation ULNBs on any such heater or boiler. Thereafter, Montana Refining shall comply with the remaining provisions of Paragraph 16.C - 16.E.

**17. SO<sub>2</sub> Emissions Reductions from and NSPS Applicability of Heaters and Boilers.**

**A. General.** Navajo and Montana Refining shall undertake measures to reduce SO<sub>2</sub> emissions from refinery heaters and boilers by restricting H<sub>2</sub>S 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 for Navajo, and by no later than December 31, 2006, for Montana Refining, the heaters and boilers at the Covered Refineries 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 no later than December 31, 2006, Montana Refining 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 Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendices B and F. This CEMS will be used to demonstrate compliance with emission limits.

**C. Elimination/Reduction of Fuel Oil Burning.**

i. Navajo. From the Date of Lodging of this Consent Decree through termination, Navajo shall continue not to burn Fuel Oil in any combustion unit except that:

- (a) Navajo shall be permitted to burn Torch Oil in the Artesia FCCU Regenerator during FCCU start-ups; and
- (b) Navajo shall be permitted to burn Fuel Oil in combustion units after the establishment of FCCU NO<sub>x</sub> emission limits pursuant to Paragraph 11.E. of this Consent Decree, provided that emissions from any such combustion units are routed through the FCCU Wet Gas Scrubber and Navajo demonstrates, with the approval of EPA, that the NO<sub>x</sub> emission limits established therein and the SO<sub>2</sub> emissions limits set forth in Paragraph 12.B. of this Consent Decree will continue to be met.

ii. Montana Refining. From the Date of Lodging of this Consent Decree through termination, Montana Refining shall continue not to burn Fuel Oil in any combustion unit except that Montana Refining shall be permitted to burn Torch Oil in the Great Falls FCCU Regenerator during FCCU start-ups.

**18. NSPS Applicability of and Compliance for Sulfur Recovery Plant.**

**A. NSPS Applicability of Sulfur Recovery Plant.**

i. Artesia Refinery Sulfur Recovery Plant Description. Navajo owns and operates one Sulfur Recovery Plant located at the Artesia Refinery. Montana Refining does not own or operate any Sulfur Recovery Plants. The Sulfur Recovery Plant at the Artesia Refinery (“Artesia SRP”) consists of two units: one with a processing capacity of 100 long tons per day (“LTD”) and the other with a processing capacity of 40 LTD. The control device for the SRP is a single Tail Gas Unit (“Artesia TGU”) with a processing capacity of 70 LTD. Nothing in this Paragraph 18 shall require Navajo simultaneously to operate both units of its SRP.

ii. Artesia Sulfur Recovery Plant NSPS Applicability. Because the Artesia SRP (which includes both units) was constructed and/or modified after October 4, 1976, the Artesia SRP is subject to, and shall continue to comply with, the applicable provisions of 40 C.F.R. Part 60, Subparts A and J.

**B. Sulfur Pit Emissions**. As of the Date of Lodging, Navajo shall continue to route all Artesia SRP sulfur pit emissions from the Artesia SRP so that sulfur pit emissions to the atmosphere either are eliminated or are included and monitored as part of the applicable Sulfur Recovery Plants tail gas emissions that meet the NSPS Subpart J limit for SO<sub>2</sub>: a 12-hour rolling average of 250 ppmvd SO<sub>2</sub> corrected to 0% oxygen, as required by 40 C.F.R. § 60.104(a)(2).

**C. Sulfur Recovery Plant Emissions Compliance**

i. By no later than the Date of Lodging of the Consent Decree, Navajo shall, for all periods of operation of the Artesia SRP, comply with 40 C.F.R. § 60.104(a)(2), except during periods of startup, shutdown or Malfunction of the Artesia SRP, or during a Malfunction of the Artesia TGU. For the purpose of determining compliance with the Sulfur Recovery Plant emission limits of 40 C.F.R. § 60.104(a)(2), the “start-up/shutdown” provisions set forth in NSPS Subpart A shall apply to the Artesia SRP and not to the independent start-up or shutdown of the Artesia TGU. However, the Malfunction exemption set forth in NSPS Subpart A (and as defined in the Consent Decree at Paragraph 10) shall apply to both the Artesia SRP and the Artesia TGU.

ii. As of the Date of Lodging of this Consent Decree, Navajo shall monitor all emission points (stacks) to the atmosphere for tail gas emissions from the Artesia SRP, and shall report excess emissions, as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105(a)(5). During the life of this Consent Decree, Navajo shall continue to conduct emissions monitoring from the Artesia SRP with CEMS at all of the emission points, unless an SO<sub>2</sub> alternative monitoring procedure has been approved by EPA, per 40 C.F.R. § 60.13(i), for any of the emission points. The requirement for continuous monitoring of the Artesia SRP emission points is not applicable to the Acid Gas Flaring Devices used to flare the Acid Gas or Sour Water Stripper Gas for the Artesia SRP.

iii. At all times, including periods of startup, shutdown, and Malfunction, Navajo shall, to the extent practicable, operate and maintain the Artesia SRP and the Artesia TGU, and any supplemental control devices, in accordance with Navajo’s obligation to minimize Sulfur Recovery Plant emissions through implementation of good air pollution control practices as required in 40 C.F.R. § 60.11(d).

**D. Good Operation and Maintenance.**

i. By no later than 270 days from the Date of Lodging of the Consent Decree, Navajo shall, for the Artesia SRP, submit to EPA and the NMED, a summary of a plan, implemented or to be implemented, for enhanced maintenance and operation of the Artesia SRP, the Artesia TGU, 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 Plan shall be a compilation of Navajo’s approaches for exercising good air pollution control practices for minimizing SO<sub>2</sub> emissions at the Artesia Refinery. The PMO Plan shall provide for continuous operation of the Artesia SRP between scheduled maintenance turnarounds with minimization of emissions from the Artesia SRP. 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 Artesia SRP Claus trains, Artesia TGU, and any supplemental control device to coincide with scheduled turnarounds of major Upstream Process Units. The PMO Plan shall have as a goal the elimination of Acid Gas Flaring. Navajo shall comply with the PMO Plan at all times, including periods of start up, shut down, and Malfunction of the Artesia SRP. Modifications related to minimizing Acid Gas Flaring and/or SO<sub>2</sub> emissions made by Navajo to the PMO Plan shall be summarized in an annual submission to EPA and the NMED.

ii. EPA and the NMED do not, by their review of the PMO Plan and/or by their failure to comment on the PMO Plan, warrant or aver in any manner that any of the actions that Navajo may take pursuant to the PMO Plan will result in compliance with the provisions of the Clean Air Act, the New Mexico Air Quality Control Act, or their implementing regulations. Notwithstanding EPA’s or NMED’s review of the PMO Plan, Navajo shall remain solely

responsible for compliance with the Clean Air Act, the New Mexico Air Quality Control Act, and their implementing regulations.

**E. Optimization Study.** Between January 1, 2004, and December 31, 2004, Navajo shall complete an optimization study (internal or external) on the Artesia SRP and report the results to EPA and the NMED. The optimization study shall consider:

- i. A detailed evaluation of plant design and capacity, operating parameters and efficiencies - including catalytic activity and material balances;
- ii. An analysis of the composition of the Acid Gas and Sour Water Stripper Gas resulting from the processing of crude slate actually used, or expected to be used, in the Artesia SRP;
- iii. A thorough review of each critical piece of process equipment and instrumentation within each Claus train that is designed to correct deficiencies or problems that prevent each Claus train from achieving their optimal sulfur recovery efficiency and expanded periods of operation;
- iv. Establishment of baseline data through testing and measurement of key parameters throughout each Claus train;
- v. Establishment of a thermodynamic process model of each Claus train;
- vi. For any key parameters that have been determined to be at less than optimal levels, initiation of logical, sequential, or stepwise changes designed to move such parameters toward their optimal values;
- vii. Verification through testing, analysis of continuous emission monitoring data, or other means, of incremental and cumulative improvements in sulfur recovery efficiency, if any;

- viii. Establishment of new operating procedures for long term efficient operation; and
- ix. Each study shall be conducted to optimize the performance of the Claus trains in light of the actual characteristics of the feeds to the Artesia SRP.

Navajo shall incorporate the results of the optimization study into the PMO Plan required under Paragraph 18.D.

**19. NSPS Applicability of and Compliance for Flaring Devices.**

**A. Identification of and NSPS Applicability for Flaring Devices.** Navajo and Montana Refining own and operate the Flaring Devices identified in Appendix B to this Consent Decree. Consistent with the terms of this Paragraph 19 and the schedule in Appendix E, the Flaring Devices in Appendix B 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.

**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 in Appendix B, Navajo and Montana Refining shall either 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 the dates specified in Appendix E.

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 caused by excessive pressure build-up or other emergency Malfunction shall be 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 in Appendix B, Navajo and Montana Refining 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.** All Flaring Devices that Navajo or Montana Refining keep in service to combust continuous or intermittent, routinely-generated refinery fuel gases shall be equipped with 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). Navajo and Montana Refining shall comply with the reporting requirements of 40 C.F.R. Part 60, Subpart J, for all such Flaring Devices.

**E. Utilization of the Lovington Flaring Device during a Scheduled Shutdown at Duke Energy's Linam Ranch Natural Gas Plant.** Commencing on the Date of Lodging of this Consent Decree and continuing through the date that the Lovington Flaring Device (FL-1001) meets NSPS standards related to fuel gas combustion devices, Navajo shall provide written notice to the NMED by no later than ten days prior to a scheduled shutdown at Duke Energy's Linam Ranch Natural Gas Plant, except that, if Navajo does not receive notice from Duke Energy of a scheduled shutdown ten days in advance of such shutdown, then Navajo shall provide written notice to the NMED by no later than the end of the next business day after receiving notice from Duke Energy.

**20. Control of Acid Gas Flaring Incidents and Tail Gas Incidents.**

Navajo has identified the causes of AG Flaring Incidents that occurred between 1997 and July of 2001 at the Artesia Refinery. Navajo has implemented (or is in the process of identifying and implementing) corrective actions to minimize the number and duration of AG Flaring

Incidents. Navajo also agrees to implement a program 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. Navajo shall follow the procedures in this Paragraph 20 to evaluate whether future AG Flaring Incidents are due to Malfunctions or are subject to stipulated penalties. Navajo also agrees to undertake the investigative and evaluative procedures in this Paragraph for assessing if Tail Gas Incidents, as described in Paragraph 20.E, are due to Malfunctions or are subject to stipulated penalties. The procedures, as set forth below, require a root cause analysis and corrective action for all types of AG Flaring and Tail Gas Incidents and require stipulated penalties for AG Flaring and Tail Gas Incidents if the root causes were not due to Malfunctions. The Lovington Refinery and the Great Falls Refinery do not flare Acid or SWS Gas to the atmosphere and do not have Tail Gas Units; therefore, the Lovington and Great Falls Refineries have not had any AG Flaring or Tail Gas Incidents. The provisions of this Paragraph 20 are not applicable to the Lovington and Great Falls Refineries unless and until either of them adds a Tail Gas Unit and/or modifies their process operations such that flaring Acid or SWS Gas to the atmosphere is possible.

**A. Investigation and Reporting.** No later than forty-five (45) days following the end of an Acid Gas Flaring Incident, Navajo shall submit to EPA and the NMED 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, Navajo 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 Navajo 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 Navajo concludes that corrective action(s) is (are) required under Paragraph 20.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 Navajo concludes that corrective action is not required under Paragraph 20.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 20.C.i and 20.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 20.C.iii of this Decree, describes which Paragraph (20.C.iii.a or 20.C.iii.b) applies and why; and (c) if an Acid Gas Flaring Incident falls under either Paragraph 20.C.ii or Paragraph 20.C.iii.b, states whether or not Navajo 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 20.A.iv and 20.A.v shall be submitted; provided, however, that if Navajo 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 20.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 51 shall apply, but Navajo 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 Navajo's failure to submit the report required under this Paragraph within the time frame set forth. Nothing in this Paragraph shall be deemed to excuse Navajo 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 Navajo has requested an extension of time under this Paragraph 20.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), Navajo 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, Navajo 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 Navajo in writing within thirty (30) days of receipt of the report(s) required by Paragraph 20.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 20.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 Navajo 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 measures or procedures under this Paragraph 20, Navajo shall remain solely responsible for non-compliance with the Clean Air Act and its implementing regulations. Nothing in this Paragraph 20 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 Navajo of that fact within thirty (30) days following receipt of the report(s) required by Paragraph 20.A above. If EPA and Navajo 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 20 shall be construed to limit the right of Navajo 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 20.C shall apply to the Artesia Refinery. The provisions of Paragraph 20.C are intended to implement the process outlined in the logic diagram attached hereto as Appendix F 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 20 and Appendix F, the language of this Paragraph shall control.

i. The stipulated penalty provisions of Paragraph 51 shall apply to any Acid Gas Flaring Incident for which the Root Cause was one or more of the following acts, omissions, or events:

- a. Error resulting from careless operation by the personnel charged with the responsibility for the Sulfur Recovery Plant, TGU, or Upstream Process Units;
- b. Failure to follow written procedures;
- c. A failure of equipment that is due to a failure by Navajo to operate and maintain that equipment in a manner consistent with good engineering practice; or
- d. The following Root Causes shall not provide a basis for asserting a Malfunction defense unless Navajo can demonstrate to EPA that such root cause substantially differs from these same Root Causes that were identified prior to the Lodging of this Consent Decree:

- (1) Shutdowns and maintenance of Compressor C110 or the FCCU wet gas compressor at the Artesia Refinery; and
- (2) Hydrocarbon carryover resulting in SRP shutdowns at the Artesia Refinery.

Except for a force majeure event, Navajo shall have no defenses to a demand for stipulated penalties for an Acid Gas Flaring Incident falling under this Paragraph 20.C.i.

ii. The stipulated penalty provisions of Paragraph 51 shall apply to any Acid Gas Flaring Incident that either:

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

In response to a demand by the United States for stipulated penalties, the United States and Navajo agree that Navajo shall be entitled to assert a Malfunction and/or force majeure defense with respect to any Acid Gas Flaring Incident falling under this Paragraph 20.C.ii. In the event that a dispute arising under this Paragraph is brought to the Court pursuant to the dispute resolution provisions of this Consent Decree, nothing in this Paragraph is intended or shall be construed to stop Navajo from asserting that, in addition to the Malfunction and/or force majeure defense, the defenses of startup, shutdown, and upset are available for AG Flaring Incidents under 40 C.F.R. § 60.104(a)(1), nor to stop the United States from asserting its view that such defenses are not available. In the event that a Flaring Incident falls under both Paragraph 20.C.i and Paragraph 20.C.ii, then Paragraph 20.C.i shall apply.

iii. With respect to any Acid Gas Flaring Incident other than those identified in Paragraphs 20.C.i and 20.C.ii, the following provisions shall apply:

- a. First Time: If the Root Cause of the Acid Gas Flaring Incident was not a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident at that refinery that occurred since the effective date of this Decree, then:
- (1) If the Root Cause of the Acid Gas Flaring Incident was sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice, then that cause shall be designated as an agreed-upon malfunction for purposes of reviewing subsequent Acid Gas Flaring Incidents;
  - (2) If the Root Cause of the Acid Gas Flaring Incident was not sudden and infrequent, and was reasonably preventable through the exercise of good engineering practice, then Navajo shall implement corrective action(s) pursuant to Paragraph 20.B.i.
- b. Recurrence: If the Root Cause is a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident that occurred since the Effective Date of this Consent Decree, then Navajo shall be liable for stipulated penalties under Paragraph 51 of the Consent Decree unless:
- (1) the Flaring Incident resulted from a Malfunction; or
  - (2) the Root Cause previously was designated as an agreed-upon malfunction under Paragraph 20.C.iii.b.(1); provided however, that in the event that a dispute arising under this Paragraph is brought to the Court pursuant to the dispute resolution provisions of this Consent Decree, nothing in this Paragraph is intended or shall be construed to stop Navajo from asserting its view that, in addition to a Malfunction and/or force majeure defense, the defenses of startup, shutdown, and upset are available for Acid Gas Flaring Incidents under 40 C.F.R. § 60.104(a)(1), nor to stop the United States from asserting its view that such defenses are not available; or
  - (3) the AG Flaring Incident had as its Root Cause the recurrence of a Root Cause for which Navajo had previously developed, or was in the process of developing, a corrective action plan for and for which Navajo had not yet completed implementation.

iv. Other than for a Malfunction or force majeure, if no Acid Gas Flaring Incident and no violation of the emission limit under Paragraph 18 occurs at the Artesia Refinery for a rolling 36 month period, then the stipulated penalty provisions of Paragraph 51 no longer apply. EPA may elect to reinstate the stipulated penalty provision if Navajo 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 Artesia Refinery.

**D. Miscellaneous.**

**i. Calculation of the Quantity of Sulfur Dioxide Emissions resulting from AG**

**Flaring.** For purposes of this Consent Decree, the quantity of SO<sub>2</sub> 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 SO<sub>2</sub> emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO<sub>2</sub> emitted shall be rounded to 10.1 tons.) For purposes of determining the occurrence of, or the total quantity of SO<sub>2</sub> emissions resulting from, a AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO<sub>2</sub> emitted shall be equal to the sum of the quantities of SO<sub>2</sub> flared during each such period of intermittent AG Flaring.

**ii. Calculation of the Rate of SO<sub>2</sub> Emissions During AG Flaring.** For purposes of this Consent Decree, the rate of SO<sub>2</sub> emissions resulting from AG Flaring shall be expressed in terms of pounds per hour, and shall be calculated by the following formula:

$$\text{ER} = [\text{FR}][\text{ConcH}_2\text{S}][0.169].$$

The emission rate shall be rounded to one decimal point. (Thus, for example, for a calculation that results in an emission rate of 19.95 pounds of SO<sub>2</sub> per hour, the emission rate shall be rounded to 20.0 pounds of SO<sub>2</sub> per hour; for a calculation that results in an emission rate of 20.05 pounds of SO<sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 (“ConcH<sub>2</sub>S”) shall be determined from the Sulfur Recovery Plant feed gas analyzer, from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler or draeger tube analysis or by any other method approved by EPA or the NMED. 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 20.A.i. shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

**E. Tail Gas Incidents.**

**i. Investigation, Reporting, Corrective Action and Stipulated Penalties.** For Tail Gas Incidents, Navajo shall follow the same investigative, reporting, corrective action and assessment of stipulated penalty procedures as those outlined in Paragraphs 20.A - 20.C for Acid Gas Flaring Incidents. Those procedures shall be applied to TGU shutdowns, bypasses of a TGU, unscheduled shutdowns of a Sulfur Recovery Plant, or other miscellaneous unscheduled Sulfur Recovery Plant events which result in a Tail Gas Incident.

**ii. Calculation of the Quantity of SO<sub>2</sub> Emissions resulting from a Tail Gas Incident:**

For the purposes of this Consent Decree, the quantity of SO<sub>2</sub> emissions resulting from a Tail Gas Incident shall be calculated by one of the following methods, based on the type of event:

- a. If the Tail Gas Incident is combusted in a flare the SO<sub>2</sub> emissions are calculated using the methods outlined in Paragraph 20.D.; or
- b. If the Tail Gas Incident is a event exceeding the 250 ppmvd (NSPS J limit), from a monitored Sulfur Recovery Plant incinerator, then the following formula applies:

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

Where:

$ER_{TGI}$  = Emissions from Tail Gas at the Sulfur Recovery Plant incinerator, SO<sub>2</sub> lb over a 24 hour period

$TD_{TGI}$  = Total Duration (number of hours) when the incinerator CEMS exceeded 250 ppmvd SO<sub>2</sub> corrected to 0% O<sub>2</sub> on a rolling twelve hour average, in each 24 hour period of the Incident

$i$  = Each hourly average

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

Conc. SO<sub>2</sub> = Each actual 12 hour rolling average SO<sub>2</sub> concentration (CEMS data) that is greater than 250 ppm in the incinerator exhaust gas, ppmvd corrected to 0% O<sub>2</sub>, for each hour of the Incident

% O<sub>2</sub> = O<sub>2</sub> concentration (CEMS data) in the incinerator exhaust gas in volume % on dry basis for each hour of the Incident

$$0.169 \times 10^{-6} = [\text{lb mole of SO}_2 / 379 \text{ SO}_2] [64 \text{ lbs SO}_2 / \text{lb mole SO}_2] [1 \times 10^{-6}]$$

Standard conditions = 60 degree F; 14.7 lb<sub>force</sub>/sq.in. absolute

In the event the concentration SO<sub>2</sub> data point is inaccurate or not available or a flow meter for FR<sub>Inc</sub>, does not exist or is inoperable, then estimates will be used based on best engineering judgment.

**21. Control of Hydrocarbon Flaring Incidents.** Navajo and Montana Refining have identified the causes of HC Flaring Incidents that occurred between 1997 and July of 2001 at each of the Covered Refineries. Navajo and Montana Refining 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, Navajo and Montana Refining shall follow the same investigative, reporting, and corrective action procedures as those outlined in Paragraphs 20.A - 20.B for Acid Gas Flaring Incidents; provided however, that in lieu of analyzing possible corrective actions under Paragraph 20.A.v and taking interim and/or long-term corrective action under Paragraph 20.B.i for a Hydrocarbon Flaring Incident attributable to the start up or shut down of a unit that Navajo or Montana Refining has previously analyzed under this Paragraph 21, Navajo or Montana Refining, as applicable, may identify such prior analysis when submitting the report required under this Paragraph 21. Stipulated penalties under either Paragraphs 20.C and 51 shall not apply to Hydrocarbon Flaring Incident(s). The formulas at Paragraph 20.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.

**22. 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”), Navajo and Montana Refining agree to undertake, at each of the Covered Refineries, the measures set forth in Paragraphs 22.B through 22.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, Navajo and Montana Refining believe that each of the Covered Refineries has a Total Annual Benzene (“TAB”) of less than 10 Mg/yr. Navajo and Montana Refining will review and verify the TABs at each of the Covered Refineries consistent with the requirements of Paragraph 22.C.

**B. Refinery Compliance Status Changes.** If at any time from the Date of Lodging of the Consent Decree through its termination, any of the Covered Refineries is determined to have a TAB equal to or greater than 10 Mg/yr, Navajo or Montana Refining, 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 270 days from the Date of Lodging of the Consent Decree, Navajo and Montana Refining shall complete a review and verification of the TAB of each Covered Refinery. For each Covered 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 Covered 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 per Covered Refinery 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 thirty (30) days following the completion of Phase One of the review and verification process, Navajo and Montana Refining shall submit a Benzene Waste NESHAP Compliance Review and Verification report (“BWN Compliance Review and Verification Report”) that sets forth the results of Phase One, including but not limited to the items identified in (i) through (iv) of this Paragraph 22.C.i. At their option, Navajo and Montana Refining may submit one BWN Compliance Review and Verification Report that includes the results of all Covered Refineries or may submit three separate BWN Compliance Review and Verification Reports.

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 Covered Refinery for sampling for benzene concentration. Navajo and/or Montana Refining, as applicable, will conduct the required sampling and submit the results to EPA within ninety (90) days of receipt of EPA’s request. Navajo and/or Montana Refining, as applicable, will use the results of this additional sampling to recalculate the TAB and to amend

the BWN Compliance Review and Verification Report, as needed. To the extent that EPA requires Navajo and/or Montana Refining to re-sample a Phase One waste stream as part of this Phase Two review, Navajo and/or Montana Refining, as applicable, may average the results of the two sampling events. Navajo and/or Montana Refining, 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 and Provisions for Covered Refineries where the TAB is under 1 Mg/yr.**

i. Amended TAB Reports. If the results of the BWN Compliance Review and Verification Report(s) indicate(s) that a Covered Refinery 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, Navajo and/or Montana Refining, 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. Navajo's and/or Montana Refining's 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 the BWN Compliance Review and Verification Report indicate that any Covered Refinery has a TAB of over 10 Mg/yr, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as

applicable, will implement to ensure that the Covered Refinery complies with the 6 BQ compliance option as soon as practicable.

iii. Review and Approval of Plans Submitted Pursuant to Paragraph 22.D.ii. Any plan submitted pursuant to Paragraph 22.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, Navajo and/or Montana Refining, as applicable, shall submit to the Applicable Federal and State Agencies a revised plan that responds to all identified deficiencies. Upon receipt of approval or approval with conditions, Navajo and/or Montana Refining, as applicable, shall implement the plan. Disputes arising under this Paragraph 22.D.iii. shall be resolved in accordance with the dispute resolution provisions of this 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 22.D.ii or pursuant to Paragraph 22.J.vi to come into compliance with the 6 BQ Compliance Option, Navajo and/or Montana Refining, as applicable, shall submit a report to the Applicable Federal and State Agencies that, as to each Refinery, the 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 a Covered Refinery has a TAB of under 1 Mg/yr, the Covered Refinery shall comply with the Benzene Waste NESHAP regulations applicable to such refineries.

**E. Annual Program.** Navajo and Montana Refining shall establish an annual program of reviewing process information for each Covered Refinery, including but not limited to

construction projects, to ensure that all new benzene waste streams are included in each Covered Refinery's waste stream inventory.

**F. Benzene Spills.** For each spill at each Covered Refinery, Navajo and/or Montana Refining, as applicable, shall review such spills to determine if benzene waste was generated. Navajo and/or Montana Refining, as applicable, shall include benzene generated by such spills in the TAB for each Covered Refinery.

**G. Training.**

i. If and when any Covered Refinery's TAB reaches 1 Mg/yr or more, then by no later than ninety (90) days from the receipt of the information showing that a Covered Refinery's TAB has reached or exceeded 1 Mg/yr, Navajo and/or Montana Refining, as applicable, shall develop and begin implementation of annual (i.e., once each calendar year) training for all employees asked to draw benzene waste samples.

ii. If and when any Covered Refinery's TAB reaches 10 Mg/yr or more, Navajo and/or Montana Refining, as applicable, shall complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste NESHAP. Navajo and/or Montana Refining, 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. Navajo and/or Montana Refining, as applicable, shall propose a schedule for the initial and refresher training at the same time that Navajo and/or Montana Refining, as applicable, proposes a plan, pursuant to either Paragraph 22.D.ii, or Paragraph 22.J.vi, that identifies the compliance strategy and schedule that

Navajo and/or Montana Refining, as applicable, will implement to come into compliance with the 6 BQ compliance option.

iii. As part of Navajo and/or Montana'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 ninety (90) days after the Date of Lodging of the Consent Decree, Navajo and Montana Refining shall submit to the Applicable Federal and State Agencies, for each of 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 the Refinery. Representatives from Navajo, Montana Refining, and EPA thereafter shall confer about the appropriate characterization of each Refinery's waste/slop/off-spec oil streams for the waste management units handling such oil streams, for purposes of each Covered Refinery's TAB calculation. At a mutually-agreed upon time, Navajo and/or Montana Refining, as applicable, shall submit, if necessary, revised schematics that reflect the agreements between EPA and Navajo and/or Montana Refining regarding the characterization of these oil streams and the appropriate control standards.

ii. Organic Benzene Waste Streams. For any Covered Refinery, if and when that 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 Navajo and/or Montana Refining pursuant to Paragraph 22.H.i, EPA and Navajo and/or

Montana Refining 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 each Covered Refinery's TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), Navajo and Montana Refining 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 a Covered Refinery'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 22.H.i., Navajo and Montana Refining shall submit, for each of their 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, Navajo and Montana Refining shall maintain records quantifying such movements.

v. Disputes under this Paragraph 22.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 22.I shall apply after a Covered Refinery's TAB reaches or exceeds 10 Mg/yr and after the Covered Refinery has completed implementation

of an approved compliance plan submitted pursuant to either Paragraph 22.D.ii, or Paragraph 22.J.vi. The provisions shall continue to apply through termination (“Applicability Dates for Paragraph 22.I.”).

i. By no later than two (2) months after the certification required by Paragraph 22.D.iv, Navajo and/or Montana Refining, as applicable, 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 Navajo and/or Montana Refining, 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 22.I. shall be resolved in accordance with the dispute resolution provisions of the Consent Decree.

ii. If, during the Applicability Dates for Paragraph 22.I, changes in processes, operations, or other factors lead Navajo and/or Montana Refining, 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 a Covered Refinery’s EOL benzene quantity, Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, as applicable, shall conduct EOL sampling, commencing during the first month of the first full calendar quarter after Navajo and/or Montana Refining, as applicable, receives written approval from EPA of the sampling plan for the particular Covered Refinery. Navajo and/or Montana Refining, as applicable, shall

take, and have analyzed, three representative samples from each approved sampling location. Navajo and/or Montana Refining, as applicable, 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, Navajo and/or Montana Refining, as applicable, shall calculate the sum of the EOL benzene quantity for the three months contained within the respective quarter. Nothing in this Paragraph 22.I shall preclude Navajo and/or Montana Refining, as applicable, from taking representative samples more frequently within any calendar month, provided that Navajo and/or Montana Refining, as applicable, 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, Navajo and/or Montana Refining, as applicable, 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”). Navajo and/or Montana Refining, as applicable, 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. Navajo and/or Montana Refining, as applicable, 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 Refinery’s EOL benzene quantity, prorated on a yearly basis, will be below 4.8 Mg/yr; or (ii) Navajo and/or Montana Refining, as applicable, discovers and

corrects the cause of the potentially elevated benzene quantities and EPA concurs in the diagnosis and corrective measures of Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, has not discovered and corrected the cause of the potentially elevated benzene through the process of Sampling of >0.05 Streams, Navajo and/or Montana Refining, 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) most recently submitted TAB report (hereinafter “Sampling of > 0.03 Streams”). Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, 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, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, shall submit to EPA for approval a plan that either (a) identifies with specificity the compliance strategy and schedule that Navajo and/or Montana Refining, as applicable, will implement to ensure that the subject Covered Refinery does 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 Navajo and/or Montana Refining, as applicable, is unable to propose a plan to ensure that the subject Covered Refinery's uncontrolled benzene for the calendar year will be 6 Megagrams or less, then Navajo and/or Montana Refining, as applicable, 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. Navajo and/or Montana Refining, as applicable, shall submit this plan within thirty (30) 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 Navajo and/or Montana Refining, as applicable, 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 Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, as applicable, shall authorize the contractor to commence work. By no later than thirty (30) days

after Navajo and/or Montana Refining, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, Navajo and/or Montana Refining, as applicable, shall submit the results to the Applicable Federal and State Agencies. EPA, the Applicable State Agency, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, or such other time as Navajo and/or Montana Refining, as applicable, and EPA may agree, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, 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 22.D.iii of this Decree. Certification of Compliance shall be done in accordance with Paragraph 22.D.iv.

**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 22.J shall apply from the date that the final BWN Compliance Review and Verification Report submitted for any Covered Refinery pursuant to Paragraph 22.C shows that a Covered Refinery's 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 Refinery reaches a TAB of 10 Mg/yr or more (in which case, the provisions of Paragraph 22.I shall begin to apply); or (2) termination of the Consent Decree.

i. Navajo and/or Montana Refining, as applicable, 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 Refinery with representatives from Navajo and/or Montana Refining, as applicable, for the purpose of identifying an appropriate procedure for conducting EOL sampling and measuring EOL benzene quantities at that Covered Refinery. EPA, the Applicable State Agency, and Navajo and/or Montana Refining, as applicable, shall confer about potential EOL sample locations and shall review process and flow information and oil movement transfers. By no later than thirty (30) days after EPA and the Applicable State Agency have met with Navajo and/or Montana, as applicable, at the Covered Refinery, Navajo and/or Montana Refining, as applicable, 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 22.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 Navajo and/or Montana Refining, as applicable, 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 Refinery's EOL benzene quantity, Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, as applicable, shall conduct an EOL determination of benzene quantity, commencing in the first full calendar quarter after Navajo and/or Montana Refining, as applicable, receives written approval from EPA of the sampling plan for the Covered Refinery. Navajo and/or Montana Refining, as applicable, shall take, and have analyzed, at least three representative samples from each approved sampling location. Navajo and/or Montana Refining, as applicable, 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, Navajo and/or Montana Refining, as applicable, shall calculate the quarterly EOL benzene quantity.

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

v. On a quarterly basis, Navajo and/or Montana Refining, as applicable, 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 a Covered Refinery equals or exceeds 10 Mg, Navajo and/or Montana Refining, as applicable, shall submit to the Applicable Federal and State Agencies a plan that identifies with specificity the actions that Navajo and/or Montana Refining, as applicable, shall take, and the schedule for such actions, to ensure that the TAB for the Covered Refinery does not exceed 10 Mg in the calendar year. Navajo and/or Montana Refining,

as applicable, 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 the Covered Refinery maintains a TAB of under 10 Mg/yr, then Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining, as applicable, shall authorize the contractor to commence work. By no later than thirty (30) days after Navajo and/or Montana Refining, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, Navajo and/or Montana Refining, as applicable, shall submit the results to the Applicable Federal and State Agencies. EPA, the Applicable State Agency, and Navajo and/or Montana Refining, as applicable, subsequently shall discuss informally the results of the Third-Party TAB Study and Compliance Review. By no later than 120 days after Navajo and/or Montana Refining, as applicable, receives the results of the Third-Party TAB Study and Compliance Review, or such other time as Navajo and/or Montana Refining, as applicable, and EPA may agree, Navajo and/or Montana Refining, as applicable, shall submit to EPA for approval a plan that identifies with specificity the compliance strategy and schedule that Navajo and/or Montana Refining, as applicable, will implement to ensure that the Covered Refinery 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 22.D.iii of this Decree. Certification of Compliance shall be done in accordance with Paragraph 22.D.iv.

**K. Miscellaneous Measures.**

i. Navajo and/or Montana Refining, as and to the extent applicable, shall comply with the Benzene Waste NESHAP provisions applicable to groundwater remediation conveyance systems at each of their Refineries having such systems.

ii. The provisions of this Paragraph 22.K.ii shall apply after a Covered Refinery's TAB reaches or exceeds 10 Mg/yr and after the Covered Refinery has completed implementation of an approved compliance plan submitted pursuant to either Paragraph 22.D.ii or Paragraph 22.J.vi. The provisions shall continue to apply until termination of the Consent Decree. Navajo and/or Montana Refining, as applicable, shall:

- a. Conduct monthly visual inspections of all water traps within the Covered Refinery's 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, Navajo and/or Montana Refining, as applicable, 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 22.K.ii.b. shall require Navajo and/or Montana Refining, as applicable, to monitor conservation vents on fixed roof tanks.

iii. From the date that the final BWN Compliance Review and Verification Report submitted for any Covered Refinery pursuant to Paragraph 22.C shows that a Covered Refinery's TAB is equal to or greater than 1 Mg/yr but less than 10 Mg/yr, and through termination of this Consent Decree, Navajo and/or Montana Refining, as applicable, shall identify and mark all area drains that are segregated stormwater drains.

**L. Projects/Investigations.**

Unless and until the TAB of any of the Covered Refineries reaches or exceeds 10 Mg/yr, Navajo and Montana Refining will not be required to undertake any projects or any investigations relating to the Benzene Waste NESHAP other than those required in Paragraphs 22.C - 22.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 Navajo and/or Montana Refining, 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, Navajo and/or Montana Refining 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 (§ 22.C.i.), as amended, if necessary (§ 22.C.ii.);
- b. Amended TAB Report, if necessary (§ 22.D.i.);
- c. Plan for a Covered Refinery 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 (§ 22.D.ii.), or the Third-Party TAB Study and Compliance Review that may result from EOL sampling (§ 22.J.vi);
- d. Compliance certification, if necessary (§ 22.D.iv.);
- e. Schematics of waste/slop/off-spec oil movements (§ 22.H.i.), as revised, if necessary (§ 22.H.i.);

- f. Schedule to complete implementation of controls on waste management units handling organic benzene waste, if necessary (§ 22.H.ii.);
- g. Plan to quantify uncontrolled waste/slop/off-spec oil movements (§ 22.H.iv.)
- h. EOL Sampling Plans (§§ 22.I.i., 22.J.ii.), and revised EOL Sampling Plans, if necessary (§§ 22.I.ii., 22.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 (§§ 22.I.vii., 22.J.iv.-v.)
- j. Proposal for a Third-Party TAB Study and Compliance Review, if necessary (§§ 22.I.viii., 22.J.vi.);
- k. Third-Party TAB Study and Compliance Review, if necessary (§§ 22.I.viii., 22.J.vi.);
- l. Plan to implement the results of the Third-Party TAB Study and Compliance Review, if necessary (§§ 22.I.viii., 22.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 any Covered Refinery pursuant to Paragraph 22.C shows that a Covered Refinery's 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 Refinery reaches a TAB of 10 Mg/yr or more (in which case, the provisions of Paragraph 22.M.ii.b shall begin to apply); or (2) termination of the Consent Decree, Navajo and/or Montana Refining, 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 22;

- (2) The annual, non-EOL sampling required at the Covered Refinery pursuant to the requirements of Paragraph 22.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 22.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 Refinery 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 Refinery shall include in the quarterly report the plan required pursuant to Paragraph 22.J.iv and/or 22.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 22.M.ii.b shall apply after a Covered Refinery's TAB reaches or exceeds 10 Mg/yr and after the Covered Refinery has completed implementation of an approved compliance plan submitted pursuant to either Paragraph 22.D.ii, or Paragraph 22.J.vi. The provisions shall continue to apply until termination. Navajo and/or Montana Refining, 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 22;
- (2) The results of the three months of monthly EOL sampling undertaken pursuant to Paragraph 22.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 Navajo and/or Montana Refining, as applicable, is required to undertake Sampling of >0.05 Streams or Sampling of >0.03 Streams at a Covered Refinery, Navajo and/or Montana Refining, as applicable, also shall: (A) submit the results of those sampling events; (B) describe the actions that Navajo and/or Montana Refining, as applicable, is taking to identify and correct the source of the potentially elevated benzene quantities; and (C) to the extent that Navajo and/or Montana Refining, as applicable, identifies actions to correct the

potentially elevated benzene quantities, specifically seek EPA's concurrence with the proposal of Navajo and/or Montana Refining, as applicable.

iii. A summary of the reports, plans, and certifications due under the provisions of Paragraph 22 is attached as Appendix G to this Consent Decree.

**N. Agencies to Receive Reports, Plans and Certifications Required in the Paragraph; Number of Copies.** Navajo and/or Montana Refining, as applicable, shall submit all reports, plans and certifications required to be submitted under this Paragraph to the Applicable Federal and State Agencies. For each submission, Navajo and/or Montana Refining, as applicable, 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 Navajo and/or Montana Refining, as applicable, the materials may be submitted electronically.

**23. 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, Navajo and Montana Refining shall undertake at each of the Covered Refineries the enhancements at Paragraph 23.A through Paragraph 23.P to each Covered Refinery's LDAR program under Title 40 of the Code of Federal Regulations, Part 60, Subpart GGG; Part 61, Subparts J and V; Part 63, Subparts F, H, and CC; 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, Subpart GGG; Part 61, Subparts J and V; Part 63, Subparts F, H and CC; and applicable state

LDAR regulations. Nothing in this Paragraph 23 shall be construed to require Navajo or Montana Refining 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 120 days after the Date of Lodging of the Consent Decree, Navajo and Montana Refining shall develop and maintain, for each of the Covered Refineries, a written, Refinery-wide program for compliance with all applicable federal and state LDAR regulations, and, in addition with respect to Navajo, for compliance with permit 195-M15 (including any future modifications to this permit occurring during the life of this Consent Decree). Until termination of this Decree, Navajo and Montana Refining shall implement this program on a Refinery-wide basis, and Navajo and Montana Refining shall update each Covered Refinery's program as necessary to ensure continuing compliance. Each Refinery-wide program shall include at a minimum:

- i. An overall, Refinery-wide 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 one year from the Date of Lodging of the Consent Decree, Navajo and Montana Refining shall implement the following training programs at each of its Refineries:

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

ii. For all personnel assigned LDAR responsibilities, Navajo and Montana Refining shall provide and require completion of annual LDAR training; and

iii. For all other Refinery operations and maintenance personnel (including contract personnel), Navajo and Montana Refining 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 Lodging of the Consent Decree, Navajo and Montana Refining shall implement at each of the Covered Refineries, the Refinery-wide audits set forth in Paragraphs 23.C.i. and 23.C.ii., to ensure each Refinery's compliance with all applicable LDAR requirements. The LDAR audits shall include but not be limited to, comparative monitoring, records review, tagging, data management, and observation of the LDAR technicians' calibration and monitoring techniques.

i. Third-Party Audits. Navajo and Montana Refining shall retain a contractor(s) to perform a third-party audit of each Refinery's LDAR program at least once every four years. The first third-party audit for two of the three Covered Refineries shall be completed no later than one year from the Date of Lodging of the Consent Decree. The audit of the remaining Covered Refinery shall be completed within two years from the Date of Lodging of the Consent Decree.

ii. Internal Audits. Navajo and Montana Refining shall conduct internal audits of each Covered Refinery's LDAR program by sending personnel familiar with the LDAR program and its requirements from one or more of the Covered Refineries or locations to audit another Covered Refinery. Navajo and Montana Refining 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. Internal audits of each Covered Refinery shall be held every four years thereafter for the life of this Consent Decree.

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

iv. Alternative. As an alternative to the internal audits required by Paragraph 23.C.ii., Navajo and/or Montana Refining may elect to retain third-parties to undertake these audits, provided that an audit of each Covered Refinery 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 23.C at any of the Covered Refineries identify any areas of non-compliance, Navajo and/or Montana Refining, 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, Navajo and Montana Refining shall retain the audit reports generated pursuant to Paragraphs 23.C.i and 23.C.ii and shall maintain a written record of the corrective actions that Navajo and Montana Refining take at each of 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, Navajo and Montana Refining 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.**

Navajo and Montana Refining 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 two years after the Date of Lodging of this Consent Decree, Navajo and Montana Refining shall utilize an internal leak definition of 500 ppm VOCs for all of their Refineries' valves, excluding pressure relief devices.

ii. Leak Definition for Pumps. Navajo and Montana Refining shall utilize an internal leak definition of 2000 ppm for their Refineries' pumps by the following dates:

a. By no later than eighteen (18) months after the Date of Lodging of this Consent Decree, Navajo and Montana Refining shall utilize this definition for 50% of the total number of pumps that each of them has at their respective Covered Refineries;

b. By no later than twenty-four (24) months after the Date of Lodging of this Consent Decree, Navajo and Montana Refining shall utilize this definition for 85% of the total number of pumps that each of them has at their respective Covered Refineries;

c. By no later than forty (40) months after the Date of Lodging of this Consent Decree, Navajo and Montana Refining shall utilize this definition for all of the pumps that each of them has at their respective Covered Refineries.

iii. Two Compressors: NSPS Applicability. The FCCU wet gas compressor at the Artesia Refinery ("Artesia FCCU Wet Gas Compressor") and the Crude Unit overhead compressor at the Lovington Refinery ("Lovington Crude Compressor") shall be subject to, and

commence compliance with, the requirements of 40 C.F.R. § 60.482-3, and the corollary reporting and recordkeeping requirements, by the following dates:

Artesia FCCU Wet Gas Compressor	December 31, 2003
Lovington Crude Compressor	Date of Lodging

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

i. Reporting. For regulatory reporting purposes, Navajo and Montana Refining 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 23.E.

ii. Recording, Tracking, Repairing and Remonitoring Leaks. Navajo and Montana Refining shall record, track, repair and remonitor all leaks in excess of the internal leak definitions of Paragraphs 23.E.i and 23.E.ii at such time as those definitions become applicable, except that Navajo and Montana Refining shall have thirty (30) days to make repairs and remonitor 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 ninety (90) days after the Date of Lodging of the Consent Decree, Navajo and Montana Refining 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. Navajo and Montana Refining, or their designated contractor, however, shall remonitor, by no later than the end of the next calendar day, all valves that LDAR personnel attempted to repair. Unless the remonitored 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 23.G, Navajo and Montana Refining can demonstrate with sufficient monitoring data that the “first attempt” repair at 200 ppm will worsen or not improve a Refinery’s leak rates, Navajo and Montana Refining 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 23.E.ii, Navajo and Montana Refining shall monitor pumps at the lower leak definition on a monthly basis.

ii. Valves. At the Artesia and Lovington Refineries, on and after the Date of Lodging of the Consent Decree, Navajo 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. At the Great Falls Refinery, by no later than two years after the Date of Lodging of the Consent Decree, Montana Refining shall 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 an option to utilize the semi-annual skip period, but not the annual skip period. If, however, a process unit is subject to the Hazardous Organic NESHAP (“HON”) or the modified-HON option in the Refinery MACT, Navajo and Montana Refining must comply with the monitoring requirements in the applicable regulation.

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

i. Electronic Storing and Reporting of LDAR Data. At each of the Covered Refineries, Navajo and Montana Refining have and will continue to maintain an electronic database for

storing and reporting LDAR data. By no later than six months after the Date of Lodging, 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 six months after the Date of Lodging for Navajo, and one year after the Date of Lodging for Montana Refining, Navajo and Montana Refining 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. After approval of these operational specifications, Navajo and Montana Refining shall use dataloggers and/or electronic data collection devices during all LDAR monitoring. Navajo and Montana Refining, or their designated contractor, shall use its/their best efforts to transfer, on a daily basis, electronic data from electronic datalogging devices to the electronic database of Paragraph 23.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. Navajo and Montana Refining may use paper logs where necessary or more feasible (e.g., small rounds, remonitoring, or when dataloggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, and the identification of the monitoring equipment. Navajo and Montana Refining shall use their best efforts to transfer any manually recorded monitoring data to the electronic database of Paragraph 23.I.i within seven days of monitoring.

**J. QA/QC of LDAR Data.** By no later than ninety (90) days after the Date of Lodging of the Consent Decree, Navajo and Montana Refining, or a third party contractor retained by Navajo and Montana Refining, shall develop and implement a procedure to ensure a quality

assurance/quality control (“QA/QC”) review of all data generated by LDAR monitoring technicians. Navajo and Montana Refining shall ensure that monitoring data provided to Navajo and Montana Refining by its contractors is reviewed for QA/QC before the contractor submits the data to Navajo and Montana Refining. At least once per calendar quarter, Navajo and Montana Refining 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, Navajo and Montana Refining shall establish a program that will hold LDAR personnel accountable for LDAR performance. Navajo and Montana Refining shall maintain a position within each Covered Refinery responsible for LDAR management, with the authority to implement improvements.

**L. Adding New Valves and Pumps.** By no later than one hundred and twenty (120) days from the Date of Lodging, Navajo and Montana Refining shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added to each Refinery during maintenance and construction is integrated into the LDAR program.

**M. Calibration/Calibration Drift Assessment.**

i. Calibration. Navajo and Montana Refining 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 Lodging of the Consent Decree, Navajo and Montana Refining shall conduct calibration drift assessments of

LDAR monitoring equipment at the end of each monitoring shift, at a minimum. Navajo and Montana Refining 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, Navajo and Montana Refining shall remonitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall remonitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

N. **Delay of Repair.** Beginning no later than the Date of Lodging of the Consent Decree, for any equipment for which Navajo and Montana Refining are allowed, under the applicable regulations, to place on the "delay of repair" list for repair:

i. For all equipment, Navajo and Montana Refining shall:

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

b. Include equipment that is placed on the "delay of repair" list in Navajo's and Montana Refining's regular LDAR monitoring.

ii. For valves: For valves, other than control valves, leaking at a rate of 10,000 ppm or greater, Navajo 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 Navajo 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, Navajo may place the leaking valve on its "delay of repair" list. If a new method develops for repairing such valves, Navajo will advise EPA prior to implementing such new method. For valves, other than control valves, leaking at a rate of 50,000 ppm or greater, Montana Refining shall undertake extraordinary efforts to fix such leaking valves, rather than placing the valve on the "delay of repair" list, unless Montana Refining can demonstrate that there is a safety, mechanical, or major environmental concern posed by repairing the leak in this manner.

iii. For pumps: At such time as the lower leak rate definition applies pursuant to Paragraph 23.E.ii, for pumps leaking at a rate of 2000 ppm or greater, Navajo and Montana Refining shall undertake their 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 Navajo and Montana Refining develop pursuant to Paragraph 23.A, Navajo and Montana Refining shall submit a copy of each Refinery's Program 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 six months after the Date of Lodging for Navajo, and one year after the Date of Lodging for Montana Refining, Navajo and Montana Refining 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), Navajo and Montana Refining 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, Navajo and Montana Refining shall include the following:

- (1) A certification of the implementation of the "first attempt at repair" program of Paragraph 23.G;

- (2) A certification of the implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 23.J;
- (3) An identification of the individual at each Refinery responsible for LDAR performance as required by Paragraph 23.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 23.L;
- (5) A certification of the implementation of the calibration drift assessment procedures of Paragraph 23.M; and
- (6) A certification of the implementation of the “delay of repair” procedures of Paragraph 23.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 Navajo and Montana Refining submit pursuant to Section XI for the first calendar quarter of each year, Navajo and Montana Refining shall include an identification of each audit that was conducted pursuant to the requirements of Paragraph 23.C in the previous calendar year including, for each Covered Refinery, an identification of the auditors, a summary of the audit results, and a summary of the actions that Navajo and Montana Refining 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, Navajo and Montana Refining shall include:

- (1) Training. Information identifying the measures that Navajo and Montana Refining took to comply with the provisions of Paragraph 23.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 23 is attached as Appendix H to this Consent Decree.

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

**Paragraph; Number of Copies.** Navajo and/or Montana Refining, as applicable, shall submit all reports, plans and certifications required to be submitted under this Paragraph to the Applicable Federal and State Agencies. For each submission, Navajo and/or Montana Refining, as applicable, 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 Navajo and/or Montana Refining, the materials may be submitted electronically.

**24. Incorporation of Consent Decree Requirements into Federally-Enforceable Permits.**

**A. Within 180 Days After Lodging.** As soon as practicable following the Date of Lodging of the Consent Decree, but in no event later than 180 days following the Date of Lodging of the Consent Decree, Navajo and Montana Refining shall submit applications to the Applicable State Agency to incorporate the emission limits, standards, and/or schedules 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, Navajo and Montana Refining 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, Navajo and Montana Refining

shall file any applications necessary to incorporate the requirements of those permits into the Title V permits of the Covered Refineries.

**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 emission limits, standards and schedules under Section V of this Consent Decree, Navajo and Montana Refining shall submit applications to the Applicable State Agency to incorporate those emission limitations, standards, and/or schedules 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, Navajo and Montana Refining 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, Navajo and Montana Refining shall file any applications necessary to incorporate the requirements of those permits into the Title V permits of the Covered Refineries.

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

**25. Obtaining Construction Permits.** Navajo and Montana Refining agree 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. To the extent that Navajo and/or Montana Refining must submit permit applications for this construction or installation to the Applicable State Agencies, Navajo and Montana Refining 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 25 is not intended to prevent Navajo and/or Montana Refining from applying to the Applicable State Agency for a pollution control project exemption.

## **VI. EMISSION CREDIT GENERATION**

### **26. Emission Credit Generation.**

**A. Summary.** The intent of this Section generally is to prohibit Navajo and Montana Refining 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 Navajo and Montana Refining to use a fraction of the CD Emissions Reductions if: (1) the emissions units for which Navajo and/or Montana Refining 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 26.C.ii at the time of the permit application.

**B. General Prohibition.** Navajo and Montana Refining shall not generate or use any NO<sub>x</sub>, SO<sub>2</sub>, PM, VOC, or CO 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 26.C.ii to the general prohibition against the generation or utilization of CD Emissions Reductions set forth in Paragraph 26.B. is subject to the following conditions:

- a. Under no circumstances shall Navajo and/or Montana Refining 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 Covered Refinery that generated them;
- c. The CD Emissions Reductions provisions of this Consent Decree are for purposes of this Consent Decree only and neither Navajo, Montana Refining, 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. Navajo and Montana Refining 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 26.B, Navajo and Montana Refining may use 10 tons per year of NO<sub>x</sub> and 20 tons per year of SO<sub>2</sub> 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) already has emissions limits at the time of permitting as follows:

- a. For heaters and boilers, a limit of 0.020 lbs NO<sub>x</sub> per million BTU or less on a 3-hour rolling average basis;
- b. For heaters and boilers, a limit of 0.10 grains of hydrogen sulfide per dry standard cubic foot of fuel gas or 20 ppmvd SO<sub>2</sub> corrected to 0% O<sub>2</sub> both on a 3-hour rolling average;
- c. For heaters and boilers, no liquid or solid fuel firing capabilities;
- d. For FCCUs, a limit of 20 ppmvd NO<sub>x</sub> corrected to 0% O<sub>2</sub> or less on a 365-day rolling average basis;

- e. For FCCUs, a limit of 25 ppmvd SO<sub>2</sub> corrected to 0% O<sub>2</sub> or less on a 365-day rolling average basis; and
- f. For SRPs, NSPS Subpart J emission limits.

**D. Outside the Scope of the General Prohibition.** Nothing in this Section VI is intended to prohibit Navajo or Montana Refining 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 Navajo or Montana Refining 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**

**27. 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, Navajo and/or Montana Refining, as applicable, 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. Navajo and/or Montana Refining, as applicable, 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 Navajo's or Montana Refining's performance of work according to an applicable implementation schedule, Navajo and/or Montana Refining, as

applicable, shall notify the Applicable Federal and State Agencies of any such delays as soon as Navajo and/or Montana Refining, as applicable, reasonably concludes that the delay could affect its/their ability to comply with the implementation schedule set forth in this Consent Decree.

Navajo and/or Montana Refining, as applicable, 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 Navajo and/or Montana Refining, as applicable, and neither the United States nor Navajo nor Montana Refining, as applicable, 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.

**28. Commercial Unavailability of Control Equipment and/or Additives.** Navajo and/or Montana Refining, 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 and/or catalyst additive. If it appears that the commercial unavailability of any control equipment and/or catalyst additive may

delay Navajo's or Montana Refining's performance of work according to an applicable implementation schedule, Navajo and/or Montana Refining, as applicable, shall notify the Applicable Federal and State Agencies of any such delays as soon as Navajo and/or Montana Refining, as applicable, reasonably concludes that the delay could affect its/their ability to comply with the implementation schedule set forth in this Consent Decree. Navajo and/or Montana Refining, as applicable, shall propose for approval by EPA a modification to the applicable schedule of implementation. Prior to the notice required by this Paragraph 28, Navajo and/or Montana Refining, as applicable, must have contacted a reasonable number of vendors of such equipment or additive and obtained a written representation (or equivalent communication to EPA) from the vendor that the equipment or additive is commercially unavailable. In the notice, Navajo and/or Montana Refining, as applicable, shall reference this Paragraph 28 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 or catalyst additive, and describe the specific efforts Navajo and/or Montana Refining, as applicable, has taken and will continue to take to find such equipment or additive. Navajo and/or Montana Refining, 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 Navajo and/or

Montana Refining, as applicable, and neither the United States nor Navajo nor Montana Refining 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 Navajo and/or Montana Refining, as applicable, to secure control equipment and/or catalyst additive shall not constitute a force majeure event triggering the requirements of Section XIV; this Paragraph shall apply.

### **VIII. ENVIRONMENTALLY BENEFICIAL PROJECTS**

#### **29. Compliance with NSPS Subpart QQQ at the Artesia and Lovington Refineries.**

A. Plan to Comply with NSPS Subpart QQQ. By no later than 180 days after the Date of Lodging of the Consent Decree, Navajo shall submit a plan to EPA and the NMED that sets forth with specificity the actions, including but not limited to, the installation of any necessary control equipment, that Navajo will take to ensure that the Artesia and Lovington Refineries comply, by no later than December 31, 2003, with the requirements of the NSPS at Subpart QQQ, 40 C.F.R. §§ 60.690 - 60.699, The plan shall include a proposed schedule of implementation for the installation of any necessary control equipment. The plan shall also include proposed schedules for compliance with the monitoring, testing, recordkeeping, and reporting requirements of 40 C.F.R. §§ 60.695 - 60.698. The plan shall be subject to the approval of, disapproval of, or modification by EPA, which shall act in consultation with the NMED. Within sixty (60) days after receiving any notification of disapproval or request for modification from EPA, Navajo shall submit to EPA and the NMED a revised plan that responds to all identified deficiencies.

Upon receipt of approval or approval with conditions, Navajo shall implement the plan.

Disputes arising under this Paragraph 29 shall be resolved in accordance with the dispute resolution provisions of this Decree.

B. NSPS Applicability. By no later than December 31, 2003, the individual drain systems, oil-water separators, and aggregate facilities, as those terms are defined at 40 C.F.R. § 60.691, at the Artesia and Lovington Refineries 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.

**30. Operation of the 40 LTD Sulfur Recovery Unit at the Artesia Refinery on Hot Standby**. By no later than December 31, 2003, Navajo shall complete the installation of all equipment, piping, instrumentation, and controls necessary to permit Navajo to operate the 40 LTD sulfur recovery unit at the Artesia Refinery continuously on “hot” stand-by. By no later than February 28, 2004, Navajo will submit to EPA and the NMED a plan to study how to limit Acid Gas Flaring and emissions in excess of 250 ppm SO<sub>2</sub> from the TGU during the limited periods in which the Artesia SRP experiences a Malfunction. The study plan shall include a schedule for implementation that Navajo will implement. Navajo shall incorporate the results of this study into the Preventative Maintenance and Operation Plan (“PMO Plan”) that Navajo prepares pursuant to the requirements of Paragraph 20.D.

**31. Installation of an Additional Wet Gas Compressor at the Artesia FCCU**. By no later than December 31, 2003, Navajo shall complete the installation of an additional wet gas compressor at the Artesia FCCU. Navajo shall operate the additional wet gas compressor so as to minimize the duration of any AG or HC Flaring Incidents associated with outages of the original wet gas compressor.

**32. Community SEPs for Navajo.** Navajo shall conduct one or more supplemental environmental projects, such as odor control, wildlife habitat restoration, and/or water quality improvement, designed to benefit the community of Artesia. Navajo shall submit for EPA's and NMED's approval a detailed written proposal for each project. The total value of the project(s) shall equal or exceed \$200,000. Upon written approval of EPA and the NMED, Navajo shall implement the project(s) and submit a cost report, certified as accurate under penalty of perjury by the responsible corporate official, upon its/their completion. Navajo shall complete the project(s) by June 30, 2003, unless NMED approves in writing an extension to this deadline. If Navajo does not expend the entire \$200,000 by June 30, 2003, or a later date approved by NMED as specified above, Navajo shall pay a stipulated penalty equal to the difference between the amount expended as demonstrated in the certified cost report(s) and \$200,000. The stipulated penalty shall be paid to the State of New Mexico by corporate or certified check at the address specified in Section X (Civil Penalty) of the Consent Decree.

**33. Environmental Management System Baseline Assessment for Navajo.**

**A. Conduct of Baseline Assessment.** Navajo agrees to retain and pay an independent consultant ("Independent Consultant") to conduct an Environmental Management System ("EMS") Baseline Assessment, prepare audit and evaluation reports, and make recommendations for improvement of the environmental management system at the Artesia Refinery.

**B. Scope of Work.**

**i. Baseline Assessment.** The baseline assessment shall evaluate the following aspects of refinery management related to environmental compliance and management and may evaluate any other aspect of refinery management which the Independent Consultant finds relevant and appropriate, including but not limited to:

- a. formal and informal corporate environmental compliance policies, practices and procedures;
- b. formal and informal corporate policies, practices, and procedures which affect environmental compliance;
- c. educational and training programs for managers and employees;
- d. equipment purchase, operation and maintenance, and inventory control programs;
- e. policies, practices, and procedures regarding communication and coordination between production and environmental compliance personnel;
- f. environmental compliance officer programs;
- g. budgeting and planning systems for environmental compliance;
- h. monitoring, record keeping, and reporting systems;
- i. in-plant and community emergency plans;
- j. other internal communication and control systems; and
- k. systems for hazard identification and risk assessment.

**ii. Baseline Assessment Report.**

a. The baseline assessment report shall address each aspect of refinery management described above and any other aspect of refinery management which the Independent Consultant deems relevant and appropriate.

b. For any aspect of Navajo's refinery management which the Independent Consultant believes should be improved, the baseline assessment report shall make specific recommendations for improvement and specify a schedule for implementation. The schedule of implementation shall take into account the schedule for installation of pollution control equipment under the Consent Decree, as appropriate.

**C. Selection of Independent Consultant.** Navajo shall propose to NMED one or more persons or firms to be the Independent Consultant. The person(s) or firm(s) shall demonstrate competence and technical proficiency in the conduct of environmental management system baseline assessments and audits. Navajo shall not execute a contract under Paragraph 33.D until NMED approves in writing the person or firm to be the Independent Consultant, which approval shall not be unreasonably withheld. In approving a person or firm to be the Independent Consultant, NMED may consider any relevant factor, including but not limited to competence and technical proficiency and the relationship between the Independent Consultant and Navajo.

**D. Contract with Independent Consultant.**

i. Within one hundred twenty (120) days of the Date of Lodging of the Consent Decree, Navajo shall execute a contract, approved by NMED, with the Independent Consultant.

ii. Navajo shall submit a copy of the executed contract to the NMED.

iii. Navajo shall provide a copy of this Consent Decree to the Independent Consultant before execution of the contract.

**E. Baseline Assessment Report.** Within two hundred and ten (210) days of the Date of Lodging of the Consent Decree, the Independent Consultant shall prepare and submit the baseline assessment report to Navajo.

**F. Implementation of Recommendations.**

i. Navajo shall implement all recommendations according to the schedule for implementation, except as provided in Paragraph 33.G.

ii. Beginning on December 31, 2002, Navajo shall prepare a quarterly progress report describing its implementation of recommendations.

iii. On June 30, 2003, June 30, 2004, and after the implementation of all recommendations, the Independent Consultant shall prepare an evaluation report regarding Navajo's implementation of recommendations. The evaluation report shall, as necessary, describe any additional recommendations and a schedule of implementation. Navajo shall implement these recommendations and provide progress reports as described above, except as provided in Paragraph 33.G.

**G. Dispute Resolution.**

i. Within thirty days after the Independent Consultant submits the baseline assessment report or evaluation report, Navajo shall advise NMED, in writing, of any recommendation or schedule for implementation which Navajo believes to be illegal or economically or technically impractical.

ii. If NMED disagrees with Navajo's objection to a recommendation or schedule for implementation, NMED shall notify Navajo of the disagreement. NMED and Navajo shall meet within fifteen days of the notification to informally resolve the disagreement. The Independent Consultant shall prepare for and attend the meeting at Navajo's expense.

iii. If NMED and Navajo cannot informally resolve the disagreement, the objection shall be submitted for arbitration. Within fifteen days of such submittal, each party shall select one arbitrator, who shall, within thirty days, select by mutual agreement a third arbitrator who shall conduct the arbitration pursuant to the current rules of the American Arbitration Association ("AAA"). All expedited procedures prescribed by AAA rules shall apply. The Independent Consultant shall defend its recommendation or schedule for implementation at the arbitration. The arbitrator shall require a recommendation or schedule for implementation unless Navajo demonstrates, by a preponderance of the evidence, that the recommendation or schedule for

implementation is illegal or economically or technically impractical, but the arbitrator may revise the recommendation or schedule for implementation to avoid such illegality or economic or technical impracticality. The arbitrator's decision shall be final and binding. Navajo shall bear the cost of arbitration, including the NMED's and Independent Consultant's preparation for and attendance at the arbitration.

iv. Within thirty days of the informal resolution or arbitrator's determination, whichever comes last, the Independent Consultant shall revise the baseline assessment report or evaluation report to reflect a revised or deleted recommendation or schedule for implementation. Navajo shall bear the cost of the Independent Consultant's revision of the baseline assessment report or evaluation report.

**H. Extensions of Time.** Navajo may extend the time to conduct an action under Paragraph 33 with the written approval of NMED, which approval shall not be unreasonably withheld.

**I. Stipulated Penalties for Paragraph 33.**

i. Navajo shall pay a stipulated penalty of one thousand dollars (\$1,000.00) for each day that it fails to comply with any deadline set forth in the Paragraph 33.

ii. Navajo shall pay a stipulated penalty, on the schedule specified below, for each day that it fails to implement a recommendation according to the schedule for implementation in the baseline assessment or evaluation report except: (1) as modified by Paragraph 33.G; or (2) during the pendency of dispute resolution under Paragraph 33.G.

Days 0-10	\$1,000.00
Days 11-30	\$2,000.00
Days 31+	\$5,000.00

iii. Navajo shall pay any stipulated penalty due under this section in a lump sum to the State of New Mexico by certified check or other guaranteed negotiable instrument within fifteen days of notification by NMED. If Navajo fails to make a timely and complete payment due under this Paragraph 33.I, Navajo shall pay interest on the outstanding balance at the rate established for judgments and decrees under NMSA 1978 § 56-8-4 (1993). All payments shall be sent to NMED at the following address:

General Counsel  
Office of General Counsel  
New Mexico Environment Department  
P.O. Box 26110  
1190 St. Francis Drive  
Santa Fe, NM 87502-6110

**J. Maintenance and Distribution of Reports.**

i. Navajo shall maintain copies of the baseline assessment report, progress reports, evaluation reports, and arbitration documents at the Artesia Refinery and the Holly corporate office in Dallas, Texas.

ii. Navajo shall allow the NMED to inspect the baseline assessment report, progress reports, evaluation reports, and arbitration documents at the Artesia Refinery and the Holly corporate office during normal business hours.

iii. NMED shall not copy, transcribe, or make notes of the baseline assessment report, progress reports, evaluation reports, and arbitration documents except that Navajo agrees that NMED may copy and disclose the relevant portion of any report or document in connection with an action to enforce this Consent Decree.

iv. Navajo shall provide a copy of each progress report to the Independent Consultant within five working days of completion.

34. By signing this Consent Decree, Navajo certifies that it is not 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 Paragraphs 32 and 33.

Navajo further certifies that it has not applied for or received, and will not in the future apply for or receive: (1) credit as a Supplemental Environmental Project or other penalty offset in any other enforcement action for the projects set forth in Paragraphs 29 - 33; or (2) credit for any emissions reductions resulting from the projects set forth in Paragraphs 29 - 33 in any federal, state or local emissions trading or early reduction program.

35. The Calendar Quarterly Report required by Paragraph 37 of this Consent Decree for the calendar quarter in which each project identified in Paragraphs 29 - 33 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).

36. Navajo agrees that in any public statements regarding these beneficial environmental projects, Navajo 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 New Mexico Air Quality Control Act.

#### **IX. REPORTING AND RECORDKEEPING**

37. Beginning with the first full calendar quarter after the Date of Entry of the Consent Decree, Navajo and Montana Refining shall submit to Applicable Federal and State Agencies within thirty (30) days after the end of each calendar quarter until termination of this Consent Decree a calendar quarterly progress report (“Calendar Quarterly Report”) for each Covered Refinery. This calendar quarterly report shall contain, for each Covered Refinery, 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 29 - 33 of the Consent Decree; and any such additional matters as Navajo and Montana Refining believe should be brought to the attention of the Applicable Federal and State Agencies. Each portion of the calendar quarterly report which relates to a particular Covered Refinery shall be certified by either the person responsible for environmental management and compliance for that Covered Refinery, or by a person responsible for overseeing implementation of this Decree across Navajo and Montana Refining, 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**

38. 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, Navajo and Montana Refining shall pay a civil penalty of \$400,000 as follows: (1) \$200,000 to the United States; (2) \$160,000 to the State of New Mexico; and (3) \$40,000 to the State of Montana.

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 2001 V 00679, DOJ Case Number 90-5-2-1-2228/1, and the civil action case name and case number of this action in the District of New Mexico. The costs of such EFT shall be the responsibility of Navajo and Montana Refining. Payment shall be made in accordance with instructions provided to Navajo and Montana Refining by the Financial

Litigation Unit of the U.S. Attorney's Office for the District of New Mexico. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Navajo and Montana Refining shall provide notice of payment, referencing USAO File Number 2001 V 00679, DOJ Case Number 90-5-2-1-2228/1, and the civil action case name and case number to the Department of Justice and to EPA, as provided in Paragraph 91 (Notice).

B. Payment of the civil penalty owed to the State of New Mexico under this Paragraph shall be made by certified or corporate check made payable to the State of New Mexico and sent to the following address:

General Counsel  
Office of General Counsel  
New Mexico Environment Department  
P.O. Box 26110  
1190 St. Francis Drive  
Santa Fe, NM 87502-6110

C. Payment of the civil penalty owed to the State of Montana under this Paragraph shall be made by certified check made payable to the State of Montana and sent to the following address:

John L. Arrigo  
Administrator  
Enforcement Division  
Montana Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59620-0901

39. In satisfaction of the claims asserted by the NMED in the May 10, 2001, and July 27, 2001 NMED Compliance Orders, within thirty (30) days of the Date of Entry of the Consent Decree, Navajo shall pay a civil penalty of \$350,000 to the State of New Mexico in accordance with the procedures set forth in Paragraph 38.B.

40. 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, neither Navajo nor Montana Refining shall treat these penalty payments as tax deductible for purposes of federal, state, or local law.

41. 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, New Mexico, and Montana shall be deemed judgment creditors for purposes of collecting any unpaid amounts of the civil and stipulated penalties and interest.

#### **XI. STIPULATED PENALTIES**

42. Navajo and/or Montana Refining, as applicable, shall pay stipulated penalties for each failure by Navajo and/or Montana Refining, as applicable, to comply with the terms of this Consent Decree as provided herein. Stipulated penalties shall be calculated in the amounts specified in Paragraphs 43 through 59. At the start of each Subparagraph, the Defendant(s) that may be subject to stipulated penalties pursuant to that Subparagraph is identified. For purposes of seeking stipulated penalties under Paragraphs 43.B, 44.C, and 46.A, 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. If the requirements of Paragraphs 16 or 20 ever become applicable to

Montana Refining, then the stipulated penalties provisions of Paragraphs 47 and 51 shall take effect as to Montana Refining, except that the amount of stipulated penalties set forth in Paragraphs 47.A-D and Paragraphs 51.B and 51.D shall be halved.

**43. Paragraph 11 - Requirements for NOx Emission Reductions from FCCUs.**

A. Navajo and Montana Refining. For failure to select and/or use NOx Reducing Catalyst Additives or Low NOx Combustion Promotors as required by Paragraph 11, and, for Navajo, Appendix D, of the Consent Decree, per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1000	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1500	\$750
Beyond 60 <sup>th</sup> day after deadline	\$2000 for Navajo, and \$1000 for Montana Refining, or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater	

B. Navajo and Montana Refining. For failure to meet any emissions limit proposed by Navajo or Montana Refining, as applicable, or established by EPA (final or interim) for NOx pursuant to Paragraph 11, per day, per unit: \$750 (for Navajo) and \$300 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 3-hour rolling average exceeds the applicable limit; and \$2500 (for Navajo) and \$1250 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

C. Navajo and Montana Refining. For failure to prepare and/or submit written deliverables required by Paragraph 11, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>	<u>Penalty per day</u>
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	<u>for Navajo</u>	<u>for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$200	\$100
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$500	\$250
Beyond 60 <sup>th</sup> day after deadline	\$1000	\$500

D. Navajo and Montana Refining. For failure to install and/or certify a NO<sub>x</sub> CEMS, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500	\$250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000	\$500
Beyond 60 <sup>th</sup> day after deadline	\$2000 for Navajo, and \$1000 for Montana Refining or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.	

**44. Paragraph 12 - Requirements for SO<sub>2</sub> Emission Reductions from FCCUs.**

A. Navajo. For failure to install a wet gas scrubber at the Artesia Refinery as required by Paragraph 12.B of this Consent Decree, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$3000
Beyond 60 <sup>th</sup> day after deadline	\$5000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

B. Montana Refining. For failure to select and/or use SO<sub>2</sub> Reducing Catalyst Additive at the Great Falls Refinery as required by Paragraph 12.C of the Consent Decree, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$750
Beyond 60 <sup>th</sup> day	\$1000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

C. Navajo and Montana Refining. For each failure to meet SO<sub>2</sub> emission limits established for the Artesia FCCU in Paragraph 12.B and/or each failure to meet SO<sub>2</sub> emission limits proposed by Montana Refining or established by EPA (final or interim) pursuant to Paragraph 12.C, per day, per unit: \$1500 (for Navajo) and \$300 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 7-day rolling average exceeds the applicable limit; \$3000 (for Navajo) and \$1250 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

D. Navajo and Montana Refining. For failure to prepare and/or submit written deliverables required by Paragraph 12, per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$200	\$100
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$500	\$250
Beyond 60 <sup>th</sup> day after deadline	\$1000	\$500

E. Navajo and Montana Refining. For failure to install and/or certify a SO<sub>2</sub> CEMS, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500	\$250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000	\$500
Beyond 60 <sup>th</sup> day after deadline	\$2000 for Navajo, and \$1000 for Montana Refining, or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.	

**45. Paragraph 13 - Requirements for PM Emissions Reductions from FCCUs.**

A. Navajo. For failure to install a wet gas scrubber at the Artesia Refinery as required by Paragraph 13.B of this Consent Decree, the same stipulated penalties as those in Paragraph 44.A shall apply (stipulated penalties may be sought pursuant to only Paragraph 44 or 45, not both).

B. Montana Refining. For failure to conduct performance tests in accordance with the requirements of Paragraph 13.C, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$200
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$400
Beyond 60 <sup>th</sup> day after deadline	\$1000

C. Montana Refining. For failure to install a TSS or control technology equivalent in PM control effectiveness if such installation is required pursuant to the provisions of Paragraph 13.C, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$750
Beyond 60 <sup>th</sup> day	\$1000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

**46. Paragraph 14 – Requirements for CO Emissions Reductions from FCCUs.**

A. Navajo and Montana Refining. For each failure to meet the CO emission limits established for the Artesia and Great Falls FCCUs in Paragraph 14.B: \$500 (for Navajo) and \$200 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 1-hour rolling average exceeds the applicable limit; and \$2500 (for Navajo) and \$1250 (for Montana Refining) for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

B. Navajo and Montana Refining. For failure to install and/or certify a CO CEMS, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500	\$250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000	\$500
Beyond 60 <sup>th</sup> day after deadline	\$2000 for Navajo, and \$1000 for Montana Refining, or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.	

**47. Paragraph 16 – Requirements for NOx Emission Reductions from Heaters and**

**Boilers.**

A. Navajo. For failure to install required NOx Control Technology by the dates specified in Paragraph 16.B and Appendix C, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1200
Beyond 60 <sup>th</sup> day after deadline	\$2,000, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

B. Navajo. For failure to install and/or certify a CEMS or a parametric emission monitoring system 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 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$ 450
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000
Beyond 60 <sup>th</sup> day after deadline	\$2000, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

C. Navajo. For failure to submit the written deliverables required by Paragraph 16, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$200
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$500
Beyond 60 <sup>th</sup> day	\$1000

D. Navajo. For each failure to meet NOx emission limits proposed by Navajo pursuant to Paragraph 16.D, per day, per unit: \$500 for each calendar day in a calendar quarter on which the specified 3-hour average exceeds the applicable limit.

**48. Paragraph 17 - Requirements for SO<sub>2</sub> Emission Reductions from Heaters and Boilers.**

A. Navajo and Montana Refining. 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 device, per Covered Refinery, per day in a calendar quarter:

<u>Period of Non-Compliance</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 5 <sup>th</sup> day	\$1000	\$300
6 <sup>th</sup> through 15 <sup>th</sup> day	\$2000	\$750
Over 15 days	\$3000 for Navajo, and \$1000 for Montana Refining, or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.	

B. Montana Refining. For failure to install and/or certify a fuel gas CEMS, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$500
Beyond 60 <sup>th</sup> day after deadline	\$1000, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

C. Navajo and Montana Refining. For burning Fuel Oil in a manner inconsistent with the requirements of Paragraph 17.C, per Covered Refinery, per day:

<u>Period of Non-Compliance</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day	\$1750	\$500
Beyond 31 <sup>st</sup> day	\$5000	\$2000

**49. Paragraph 18 – Requirements for NSPS Applicability of Sulfur Recovery Plant.**

A. Navajo. For failure to route all sulfur pit emissions in accordance with the requirements of Paragraph 18.B, per day:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day	\$1750
Beyond 60 <sup>th</sup> day	\$4000 or an amount equal to 1.2 times the amount of delayed compliance whichever is greater.

B. Navajo. For failure to comply with the NSPS Subpart J emission limits, per day in a calendar quarter:

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 5 <sup>th</sup> day	\$1000

6 <sup>th</sup> through 15 <sup>th</sup> day	\$2000
Over 15 days	\$3000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.

C. Navajo. For failure to develop and comply with the Preventive Maintenance and Operation Plan as specified in Paragraph 21.D, per day:

<u>Period of Delay or Non-Compliance</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
Beyond 31 <sup>st</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day after deadline	\$2000

D. Navajo. For failure to submit the optimization study as specified in Paragraph 21.E, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
Beyond 31 <sup>st</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day after deadline	\$2000

**50. Paragraph 19 – Requirements for NSPS Applicability of Flaring Devices.**

A. Navajo. For failure to achieve NSPS compliance for the Lovington Flare (FL-1001) by December 31, 2006, and for the GOHT Flare (FL-403) by the date of installation, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1st through 30th day after deadline	\$ 500 per day
31st through 60th day after deadline	\$1500 per day
Beyond 60th day after deadline	\$2000 per day

B. Navajo and Montana Refining. 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 for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500	\$250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000	\$500
Beyond 60 <sup>th</sup> day after deadline	\$2000 for Navajo, and \$1000 for Montana Refining or, for either, an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater.	

**51. Paragraph 20 – Requirements for Control of Acid Gas Flaring Incidents and Tail Gas Incidents.**

A. Navajo. For AG Flaring Incidents and/or Tail Gas Incidents for which Navajo is liable under Paragraphs 22.C and/or 22.E:

Tons Emitted in Flaring Incident or Tail Gas 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 of the Tail Gas 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 the Tail Gas 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; Length of Time of the Tail Gas 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 51.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 \$1200)]. 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. Navajo. For failure to timely submit any report required by Paragraph 20, or for submitting any report that does not conform to the requirements of Paragraphs 20:

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-30	\$800
Days 31-60	\$1,600
Over 60 days	\$3,000

C. Navajo. For those corrective action(s) which Navajo: (i) agrees to undertake following receipt of an objection by EPA pursuant to Paragraph 20.B.ii and 20.E; or (ii) is required to undertake following dispute resolution, then, from the date of EPA’s receipt of Navajo’s report under Paragraphs 20.B or 20.E of this Consent Decree until the date that either: (i) a final agreement is reached between EPA and Navajo regarding the corrective action; or (ii) a court order regarding the corrective action is entered, Navajo shall be liable for stipulated penalties as follows:

- i. 

<u>Period of Delay</u>	<u>Penalty per day</u>
Days 1-120	\$50
Days 121-180	\$100
Days 181 - 365	\$300
Over 365 Days	\$3,000

or
- ii. 1.2 times the economic benefit resulting from Navajo’s failure to implement the corrective action(s).

D. Navajo. For failure to complete any corrective action under Paragraph 20 of this Decree in accordance with the schedule for such corrective action agreed to by Navajo or imposed on Navajo pursuant to the dispute resolution provisions of this Decree (with any such extensions thereto as to which EPA and Navajo may agree in writing):

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

**52. Paragraph 21 – Requirements for Control of Hydrocarbon Flaring Incidents.**

A. Navajo and Montana Refining. 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 for Navajo</u>	<u>Penalty per day per Incident for Montana Refining</u>
1st through 30th day	\$ 500	\$250
31st through 60th day	\$1500	\$750
Beyond 60th day	\$2000	\$1000

**53. Paragraph 22 - Requirements for Benzene Waste NESHAP Program**

**Enhancements.** For each violation in which a frequency is specified in Paragraph 22, 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. For Montana Refining, the amount of stipulated penalties that may be sought pursuant to this Paragraph 53 shall be one-third of the amounts set forth in this Paragraph 53.

A. Navajo and Montana Refining. For failure to complete the BWN Compliance Review and Verification Reports as required by Paragraph 22.C:

\$7,500 per month, per refinery

B. Navajo and Montana Refining. For failure to implement the actions necessary to correct non-compliance as required by Paragraph 22.D:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$3000
Beyond 60 <sup>th</sup> day	\$5000, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

C. Navajo and Montana Refining (if TAB equals or exceeds 1 Mg/yr). For failure to implement the training requirements of Paragraph 22.G:

\$10,000 per quarter, per refinery

D. Navajo and Montana Refining. For failure to submit or maintain any records or materials required by Paragraph 22.H of this Consent Decree:

\$2,000 per record or submission

E. Navajo and Montana Refining (if TAB equals or exceeds 10 Mg/yr). For failure to install controls on waste management units handling organic wastes as required by Paragraph 22.H.ii:

\$10,000 per month, per waste management unit

F. Navajo and Montana Refining (if TAB equals or exceeds 1 Mg/yr). For failure to conduct sampling in accordance with the sampling plans required by Paragraphs 22.I (10 Mg/yr or more) or 22.J (1 Mg/yr or more), as applicable:

\$5,000 per week, per stream, or \$30,000 per quarter, per stream, whichever is greater, but not to exceed \$150,000 per quarter per refinery

G. Navajo and Montana Refining (if TAB equals or exceeds 1 Mg/yr). For failure to submit the plan or retain the third-party contractor required by Paragraphs 22.I.viii (10 Mg/yr or

more), 22.J.v (1 Mg/yr or more), or 22.J.vi (1 Mg/yr or more):

\$10,000 per month, per refinery

H. Navajo and Montana Refining (if TAB equals or exceeds 10 Mg/yr). For failure to comply with the miscellaneous compliance measures set forth in Paragraph 22.K.ii, as follows:

For K.ii.a, monthly visual inspections: \$500 per drain not inspected;

For K.ii.b, weekly monitoring of vents: \$500 per vent not monitored;

I. Navajo and Montana Refining (if TAB equals or exceeds 1 Mg/yr). For failure to identify/mark segregated stormwater drains as required in Paragraph 22.K.iii: \$1,000 per week per drain;

J. Navajo and Montana Refining. For failure to submit the written deliverables required by Paragraph 22.M:

\$1,000 per week, per report

K. Navajo and Montana Refining. 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 22.C., Navajo and/or Montana Refining, as applicable, shall pay the following:

<u>Waste Stream</u>	<u>Penalty</u>
for waste streams < 0.03 Mg/yr	\$250
for waste streams between 0.03 and 0.1 Mg/yr	\$1000
for waste streams between 0.1 and 0.5 Mg/yr	\$5,000
for waste streams > 0.5 Mg/yr	\$10,000

**54. Paragraph 23 – Requirements for Leak Detection and Repair Program**

**Enhancements.** For each violation in which a frequency is specified in Paragraph 23, 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. For Montana Refining, the amount of stipulated penalties that may be sought pursuant to this Paragraph 54 shall be one-third of the amounts set forth in this Paragraph 54.

A. Navajo and Montana Refining. For failure to implement the training programs specified in Paragraph 23.B:

\$10,000 per month, per program, per refinery

B. Navajo and Montana Refining. For failure to conduct any of the audits described in Paragraph 23.C:

\$5,000 per month, per audit

C. Navajo and Montana Refining. For failure to implement any actions necessary to correct non-compliance as required in Paragraph 23.D:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1250
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$3000
Beyond 60 <sup>th</sup> day	\$5000, or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

D. Navajo and Montana Refining. For failure to initiate an internal leak rate definition as specified in Paragraph 23.E:

\$10,000 per month per process unit

E. Navajo and Montana Refining. For failure to implement the first attempt repair program in Paragraph 23.G or for failure to implement the QA/QC procedures described in Paragraph 23.J:

\$10,000 per month, per refinery

F. Navajo and Montana Refining. For failure to implement the more frequent monitoring program required by Paragraph 23.H.ii:

\$10,000 per month, per unit

G. Navajo and Montana Refining. For failure to designate an individual as accountable for LDAR performance as required in Paragraph 23.K, or for failure to implement the maintenance tracking program in Paragraph 23.L, or for failure to write a LDAR program that meets the requirements of Paragraph 23.A:

\$3,750 per week, per refinery

H. Navajo and Montana Refining. For failure to use dataloggers or maintain electronic data as required by Paragraph 23.I.:

\$5,000 per month, per refinery

I. Navajo and Montana Refining. For failure to conduct the calibration drift assessments or remonitor valves and pumps based on calibration drift assessments in Paragraph 23.M:

\$100 per missed event per refinery

J. Navajo and Montana Refining. For failure to comply with the requirements for repair set forth at Paragraphs 23.N.ii and 23.N.iii:

\$5,000 per valve or pump

K. Navajo and Montana Refining. For failure to submit the written deliverables required by Paragraph 23.O:

\$1,000 per week per report

L. Navajo and Montana Refining. If it is determined through a federal, state, or local investigation that Navajo and/or Montana Refining, as applicable has failed to include all valves and pumps in its LDAR program, Navajo and/or Montana Refining shall pay \$175 per component that it failed to include.

**55. Paragraph 24 – Requirements to Incorporate Consent Decree Requirements into Federally-Enforceable Permits.**

Navajo and Montana Refining. For each failure to submit an application as required by Paragraph 24:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
Days 1-30	\$800	\$400
Days 31-60	\$1600	\$800
Over 60 Days	\$3000	\$1500

**56. Paragraphs 29 - 31 – Requirements Related to Environmentally Beneficial Projects.**

A. Navajo. For failure to submit a plan conforming to the requirements of Paragraph 29, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$200
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$500

Beyond 60<sup>th</sup> day \$1000

B. Navajo. For failure to install the controls required pursuant to the approved schedule of implementation required in Paragraph 29, per unit, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day	\$2000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

C. Navajo. For failure to complete the installation of the equipment, piping, instrumentation, and controls necessary to operate the 40 LTD sulfur recovery plant on hot stand-by pursuant to the requirements of Paragraph 30:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day	\$2000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

D. Navajo. For failure to complete the optimization study required by Paragraph 30, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
Beyond 31 <sup>st</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day after deadline	\$2000

E. Navajo. For failure to install an additional wet gas compressor as required by

Paragraph 31, per day:

<u>Period of Delay</u>	<u>Penalty per day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1500
Beyond 60 <sup>th</sup> day	\$2000, or an amount equal to 1.2 times the economic benefit of the delayed compliance whichever is greater

**57. Paragraph 37 -- Requirements for Reporting and Recordkeeping.**

Navajo and Montana Refining. For failure to submit reports as required by Section IX,

per day:

<u>Period of Delay</u>	<u>Penalty per day for Navajo</u>	<u>Penalty per day for Montana Refining</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$300	\$100
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1100	\$400
Beyond 60 <sup>th</sup> day	\$2000	\$800

**58. Paragraphs 38 and 39 -- Requirements for Payment of Civil Penalties.** For

Navajo's and Montana Refining's failure to pay the civil penalties as specified in Paragraph 38 of

this Consent Decree and/or for Navajo's failure to pay the civil penalties as specified in

Paragraph 39 of this Consent Decree, Navajo and/or Montana Refining, as applicable, shall be

liable for \$10,000 per day plus interest on the amount overdue at the rate specified in 28 U.S.C § 1961(a).

**59. Paragraph 61 – Requirement to Escrow Stipulated Penalties.** For failure to escrow stipulated penalties as required by Paragraph 61 of this Consent Decree, Navajo shall be liable for \$2,500 per day and Montana Refining shall be liable for \$1000 per day, and both shall be liable for interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a).

**60. Payment of Stipulated Penalties.** Navajo or Montana Refining, as applicable, shall pay stipulated penalties upon written demand by the United States, the NMED, or the Montana DEQ, no later than sixty (60) days after Navajo or Montana Refining, as applicable, receives such demand. Demand from one agency shall be deemed a demand from all applicable agencies, but the agencies shall consult with each other prior to making a demand. Stipulated penalties owed by Navajo Refining shall be paid 50% to the United States and 50% to the State of New Mexico. Stipulated penalties owed by Montana Refining shall be paid 50% to the United States and 50% to the State of Montana. Stipulated penalties shall be paid to the United States, the State of New Mexico, and/or the State of Montana 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, the State of New Mexico, and the State of Montana may, in their unreviewable discretion, waive payment of any portion of stipulated penalties that may accrue under this Consent Decree.

**61. Stipulated Penalties Dispute.** Should Navajo and/or Montana Refining, as applicable, dispute its/their obligation to pay part or all of a stipulated penalty, it/they may avoid the imposition of a stipulated penalty for failure to pay a stipulated penalty under Paragraph 59 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 60 for payment of stipulated penalties. If the dispute is thereafter resolved in Navajo's or Montana Refining's favor, the escrowed amount plus accrued interest shall be returned to them; 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, New Mexico, and Montana reserve the right to pursue any other non-monetary remedies to which they are entitled, including but not limited to, additional injunctive relief for Navajo's or Montana Refining's violations of this Consent Decree.

## **XII. INTEREST**

**62.** Navajo and Montana Refining 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 62, 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 61 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**

**63.** 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 (except as expressly provided in Paragraph 33) all records maintained by Navajo and Montana Refining required by this Consent Decree. Navajo and Montana Refining 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**

**64.** If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, first knew of the event or should have known of the event by the exercise of due diligence. In this notice, Navajo and/or Montana Refining, as applicable, shall specifically reference this Paragraph 64 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 Navajo and/or Montana Refining, as applicable, to prevent or minimize the delay

and the schedule by which those measures shall be implemented. Navajo and/or Montana Refining, 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 91 (Notice).

**65.** Failure by Navajo and/or Montana Refining, as applicable, to substantially comply with the notice requirements of Paragraph 64 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 Navajo and/or Montana Refining, as applicable, has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.

**66.** The United States, after consultation with the Applicable State Agency, shall notify Navajo and/or Montana Refining, 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 64.

**67.** 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 Navajo and/or Montana Refining, as applicable, including any entity controlled by Navajo and/or Montana Refining, as applicable, and that Navajo and/or Montana Refining, 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. Navajo and/or Montana Refining, as applicable, shall not be liable for stipulated penalties for the period of any such delay.

**68.** If the United States, after consultation with the Applicable State Agency, does not accept Navajo's and/or Montana Refining's claim of a delay or impediment to performance, Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, 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 Navajo and/or Montana Refining, as applicable, including any entity controlled by Navajo and/or Montana Refining, as applicable, and that the delay could not have been prevented by Navajo and/or Montana Refining, as applicable, by the exercise of due diligence, Navajo and/or Montana Refining, 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.

**69.** Navajo and/or Montana Refining, 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. Navajo and/or Montana Refining, 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.

70. Unanticipated or increased costs or expenses associated with the performance of Navajo's and/or Montana Refining'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.

71. 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 Navajo and/or Montana Refining, as applicable, serving a force majeure notice or the Parties' inability to reach agreement.

72. 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. Navajo and/or Montana Refining, 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**

73. 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 95 of this Consent Decree (Termination).

74. Except as expressly provided in Paragraph 33, the dispute resolution procedure set forth in this Section XV shall be available to resolve all disputes arising under this Consent Decree, including assertion of commercial unavailability under Paragraph 28 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.

75. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the Parties to this Consent Decree to another advising of a dispute pursuant to this 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.

76. 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.

77. 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 Navajo and/or Montana Refining, 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 Navajo's and/or Montana Refining's receipt of the written summary of the United States' or the Applicable State Agency's position, Navajo and/or Montana Refining, 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.

**78.** In the event that the United States and the Applicable State Agency make differing determinations or take differing actions that affect Navajo's and/or Montana Refining's rights or obligations under this Consent Decree, the final decisions of the United States shall take precedence.

**79.** 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.

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

**81.** 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. Navajo and/or Montana Refining, 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**

**82.** The effect of settlement of this action is governed by this Paragraph 82.

**A. Definitions.** For purposes of Paragraph 82, the following definitions apply:

i. "Applicable NSR/PSD Requirements" shall mean:

- (a) PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. § 52.21;
- (b) “Plan Requirements for Non-Attainment Areas” at Part D of Subchapter I of the Act, 42 U.S.C. §§ 7502-7503, and the regulations promulgated thereunder at 40 C.F.R. §§ 51.165 (a) and (b); Title 40, Part 51, Appendix S; and 40 C.F.R. § 52.24; 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 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 82 after the Date of Lodging. Post-Lodging Compliance Dates include dates certain (e.g., “December 31, 2003”), 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. Specific Pollutant and Units.** With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of Navajo, Montana Refining, and Holly 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>
Artesia FCCU	SO <sub>2</sub>	December 31, 2003
	NO <sub>x</sub>	March 31, 2005
	PM and PM <sub>10</sub>	December 31, 2003
	CO	December 31, 2003
Great Falls FCCU	SO <sub>2</sub> and NO <sub>x</sub>	December 31, 2004
	CO	Twelve Months after the Date of Lodging
Heaters and boilers of Navajo's listed in Appendix C	NO <sub>x</sub>	Dates in Appendix C
All heaters and boilers of Navajo's other than those listed in Appendix C	NO <sub>x</sub>	Date of Lodging
All heaters and boilers of Navajo	SO <sub>2</sub>	Date of Lodging
All heaters and boilers of Montana Refining	NO <sub>x</sub>	Date of Lodging
All heaters and boilers of Montana Refining	SO <sub>2</sub>	December 31, 2006

**b. NSR/PSD PM and PM<sub>10</sub> Violations at the Great Falls FCCU.** With respect to emissions of PM and PM<sub>10</sub> from the Great Falls FCCU, if and when Montana Refining certifies the commencement of the operation of a TSS or control technology equivalent in PM control effectiveness pursuant to requirements of Paragraph 13.C, the civil liability of Montana Refining and Holly to the United States and the State of Montana shall be resolved 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 Great Falls FCCU, and for violations

of the Applicable NSR/PSD Requirements that resulted from any such pre-Lodging construction or modification and that continued up to the date of certification of the commencement of the operation a TSS or control technology equivalent in PM control effectiveness pursuant to requirements of Paragraph 13.C.

**ii. Reservation of Rights: Release for Violations Continuing After the Date of Lodging Can be Rendered Void.** Notwithstanding the resolution of liability in Paragraph 82.B.i, the release of liability by the United States and the Plaintiff-Intervenors to Navajo, Montana Refining, and Holly 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 Navajo and/or Montana Refining, as applicable, materially fails to comply with the obligations and requirements of Paragraphs 11 - 14; provided however, that the release in Paragraph 82.B.i shall not be rendered void if Navajo and/or Montana Refining, as applicable, 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 82.B.i.** Notwithstanding the resolution of liability in Paragraph 82.B.i, nothing in this Consent Decree precludes the United States and/or the Plaintiff-Intervenors from seeking from Navajo and/or Montana Refining, as applicable, injunctive relief, penalties, or other appropriate relief for violations by Navajo and/or Montana Refining, as applicable, 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 82.B.i, and Navajo and/or Montana Refining 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.**

**a. Specific Pollutants and Units.** 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 Navajo, Montana Refining, and Holly 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>
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Artesia FCCU	SO <sub>2</sub> , PM, PM <sub>10</sub> and CO	December 31, 2003
Great Falls FCCU	SO <sub>2</sub> CO	December 31, 2004 12 months after the Date of Lodging
All heaters and boilers of Navajo	SO <sub>2</sub>	Date of Lodging
All heaters and boilers of Montana Refining	SO <sub>2</sub>	December 31, 2006
Artesia SRP	SO <sub>2</sub>	Date of Lodging
Artesia Flaring Devices	SO <sub>2</sub>	Date of Lodging
GOHT Flaring Device	SO <sub>2</sub>	Date of Installation
Lovington Flaring Device (FL-1001)	SO <sub>2</sub>	December 31, 2006
Great Falls Flaring Device	SO <sub>2</sub>	Date of Lodging

**b. NSPS PM and PM<sub>10</sub> violations at the Great Falls FCCU.** If and when Montana Refining: (1) commences the operation of a TSS or control technology equivalent in PM control effectiveness; (2) notifies EPA and the Montana DEQ that Montana Refining accepts NSPS applicability for PM from the Great Falls FCCU; and (3) demonstrates compliance with an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average basis by conducting a 3-hour performance test representative of normal operating conditions for PM emissions, then the civil liability of Montana Refining and Holly to the United States and the State of Montana shall be resolved for violations of the NSPS Subparts A and J provisions that relate to PM emissions from an FCCU from the date that the NSPS claims of the United States and/or the State Montana first accrued through the date of the first demonstration of compliance with an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average

basis by conducting a 3-hour performance test representative of normal operating conditions for PM emissions.

**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 82.C.i.a, the release of liability by the United States and the Plaintiff-Intervenors to Navajo, Montana Refining, and Holly 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 Navajo and/or Montana Refining, as applicable, materially fails to comply with the obligations and requirements of Paragraphs 15 - 19; provided however, that the release in Paragraph 82.C.i.a shall not be rendered void if Navajo and/or Montana Refining, as applicable, 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 FCCU, fuel gas combustion device, or sulfur recovery plant currently subject to NSPS as previously determined by any federal, state, or local authority or any applicable permit.

**D. LDAR and Benzene Waste NESHAP.**

**i. Resolution of Liability.** Entry of this Consent Decree shall resolve all civil liability of Navajo, Montana Refining, and Holly 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:

**a. LDAR.** For all equipment in light liquid service and gas and/or vapor service, the LDAR requirements promulgated pursuant to Sections 111 and 112 of the Clean Air Act, and

codified at 40 C.F.R. Part 60, Subparts VV and GGG; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H, and CC;

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

**c.** Any applicable state regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified in Paragraphs 82.D.i-ii.

**ii. Artesia FCCU Wet Gas Compressor.** Notwithstanding the provisions of Paragraph 82.D.i.a, the civil liability of Navajo and Holly to the United States and the State of New Mexico for violations of 40 C.F.R. § 60.482-3 at the Artesia FCCU Wet Gas Compressor shall be resolved through December 31, 2003; provided however, that the release of liability for the period between the Date of Lodging and December 31, 2003, shall be rendered void if Navajo does not meet the NSPS requirements at 40 C.F.R. § 60.482-3 for the Artesia FCCU Wet Gas Compressor on or before December 31, 2003.

**iii. Reservation of Rights.** Except as specifically provided in Paragraph 82.D.ii, and notwithstanding the resolution of liability in Paragraphs 82.D.i, nothing in this Consent Decree precludes the United States and/or Plaintiff-Intervenors from seeking from Navajo or Montana Refining or Holly:

- (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; or (B) commenced after the Date of Entry of the Consent Decree; or
- (b) civil penalties for violations of the Benzene Waste NESHAP and/or LDAR occurring on or after the Date of Entry of the Consent Decree.

**E. NSPS Subpart QQQ.** Entry of this Consent Decree shall resolve all civil liability of Navajo to the United States and the State of New Mexico for violations of 40 C.F.R. §§ 60.690-60.699 (Subpart QQQ), from the date that the claims of the United States and New Mexico accrued through December 31, 2003; provided however, that the release of liability for the period between the Date of Lodging and December 31, 2003, shall be rendered void if Navajo does not meet the NSPS requirements at 40 C.F.R. §§ 60.692-60.693, on or before December 31, 2003.

**F. Other.**

**i. May 10, 2001 and July 27, 2001 NMED Compliance Orders.** Entry of this Consent Decree shall resolve all civil liability of Navajo and Holly to the State of New Mexico and to the United States for the violations in the May 10, 2001 NMED Compliance Order and the July 27, 2001 NMED Compliance Order. This civil liability shall be resolved with respect to SO<sub>2</sub>, PM, and CO, through December 31, 2003, and with respect to NO<sub>x</sub>, through the date that the NO<sub>x</sub> emission limitation is established by EPA pursuant to Paragraph 11.E; provided however, that the release of liability for the period between the Date of Lodging and the Post-Lodging Compliance Dates shall be rendered void if Navajo materially fails to comply with the obligations and requirements of Paragraphs 11 - 14; provided however, that this release shall not be rendered void if Navajo remedies such material failure and pays any stipulated penalties due as a result of such material failure.

**ii. Lovington Flaring Device.** Entry of this Consent Decree shall resolve all civil liability of Navajo and Holly to the State of New Mexico for violations arising from Navajo's use of the Lovington Flaring Device (FL-1001) occurring during scheduled shutdown at Duke

Energy's Linam Ranch Natural Gas Plant from the date that New Mexico's claims accrued through December 31, 2006; provided however, that the release of liability for the period between the Date of Lodging and December 31, 2006, shall be rendered void: (i) with respect to a particular Flaring Incident at the Lovington Flaring Device occurring during a scheduled shutdown at Duke Energy's Linam Ranch Natural Gas Plant for which Navajo did not comply with the notice requirement of Paragraph 19.E; or (ii) if Navajo does not meet the emission limit for fuel gas combustion devices at 40 C.F.R. § 60.104(a)(1), on or before December 31, 2006. Notwithstanding the preceding sentence, New Mexico reserves the right to seek injunctive relief for Navajo's operation of its Lovington Flaring Device that results or may result in an exceedance of an ambient air quality standard.

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

**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 Navajo or Montana Refining or Holly for violations of the PSD/NSR, NSPS, NESHAP, and/or LDAR requirements, not identified in Paragraph 82 of the Consent Decree and/or the Complaint and/or the May 10, 2001 NMED Compliance Order and/or the July 27, 2001 NMED Compliance Order:

a. Navajo, Montana Refining, and/or Holly 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 Navajo, Montana Refining, and/or Holly 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 Navajo, Montana Refining and/or Holly to assert that the claims are deemed resolved by virtue of this Paragraph 82 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 Navajo, Montana Refining, and/or Holly 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, New Mexico, and Montana to undertake any action against any person, including Navajo, Montana Refining and/or Holly, to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

## **XVII. GENERAL PROVISIONS**

**83. Other Laws.** Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Navajo and Montana Refining of their obligations to comply with all applicable federal, state and local laws and regulations. Subject to Paragraph 82, nothing contained in this Consent Decree shall be construed to prevent or limit the rights of the United States, New Mexico, or Montana to seek or obtain other remedies or sanctions available under other federal, state or local statutes or regulations, by virtue of Navajo's or Montana Refining's violation of the Consent Decree or of the statutes and regulations upon which the Consent Decree is based, or for Navajo's or Montana Refining's violations of any applicable provision of law, other than the specific matters resolved herein. This shall include the right of the United States, New Mexico, or Montana to invoke the authority of the Court to order Navajo's or Montana Refining's compliance with this Consent Decree in a subsequent contempt action.

**84. Post-Permit Violations.** Nothing in this Consent Decree shall be construed to prevent or limit the right of the United States, New Mexico, or Montana, to seek injunctive or monetary relief for violations of permits issued as a result of the procedure required under Paragraph 24 of this Decree; provided however, that with respect to monetary relief, the United States, New Mexico, and Montana 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).

**85. Failure of Compliance.** The United States, New Mexico, and Montana do not, by their consent to the entry of Consent Decree, warrant or aver in any manner that Navajo's and Montana Refining's complete compliance with the Consent Decree will result in compliance

with the provisions of the CAA, the New Mexico Air Quality Control Act, or the Montana Clean Air Act. Notwithstanding the review or approval by EPA, the NMED and/or the Montana DEQ of any plans, reports, policies or procedures formulated pursuant to the Consent Decree, Navajo and Montana Refining 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).

**86. Service of Process.** Navajo and Montana Refining 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 Navajo and Montana Refining at Paragraph 91 (Notice) are authorized to accept service of process with respect to all matters arising under or relating to the Consent Decree.

**87. Post-Lodging/Pre-Entry Obligations.** Obligations of Navajo and Montana Refining 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, New Mexico and/or Montana 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.

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

**89. Public Documents.** All information and documents submitted by Navajo and Montana Refining 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, the NMED, and the Montana DEQ, 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.

**90. 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.

**91. 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 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 Navajo and Montana Refining shall be submitted as specified in this Consent Decree, with copies to EPA Headquarters and the Applicable EPA Region and the Applicable State Agency. 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 States, Navajo and Montana Refining 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. 90-5-2-1-2228/1

**As to EPA:**

U.S. Environmental Protection Agency  
Director, Air Enforcement Division  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code 2242-A  
Washington, DC 20460

**EPA Region 6:**

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

**EPA Region 8:**

Air Program Coordinator  
U.S. EPA Region 8, Montana Office  
301 S. Park, Drawer 10096  
Helena, MT 59262-0096

**The State of New Mexico:**

General Counsel  
Office of General Counsel  
New Mexico Environment Department  
P.O. Box 26110  
1190 St. Francis Dr.  
Santa Fe, NM 87502-6110

Bureau Chief  
Air Quality Bureau  
New Mexico Environment Department  
2048 Galisteo St.  
Santa Fe, NM 87505

**The State of Montana:**

Enforcement Division Administrator  
Montana Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59620-0901

Bureau Chief  
Air and Waste Management Bureau  
Metcalf Building  
P.O. Box 200901  
Helena, MT 50620-0901

**As to Navajo:**

Plant Manager  
Navajo Refining Co.  
P.O. Box 159  
501 E. Main St.  
Artesia, NM 88211

General Counsel  
Holly Corp.  
100 Crescent Court  
Suite 1600  
Dallas, TX 75201-6927

**As to Montana Refining:**

Refinery Manager  
Montana Refining Co.  
1900 10<sup>th</sup> St., N.E.  
Great Falls, MT 59404

General Counsel  
Holly Corp.  
100 Crescent Court  
Suite 1600  
Dallas, TX 75201-6927

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.

**92. Approvals.** All EPA approvals or comments required under this Decree shall come from EPA, Office of Regulatory Enforcement, Air Enforcement Division, at the address listed in Paragraph 91 (Notice). All Plaintiff-Intervener approvals shall be sent from the offices identified in Paragraph 91.

**93. 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.

**94. 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**

**95. A.** Provisions of this Consent Decree relating to Navajo shall be subject to termination upon motion by the United States or Navajo (under the conditions identified in Paragraph 95.B). Provisions of this Consent Decree relating to Montana Refining shall be subject to termination upon motion by the United States or Montana Refining (under the conditions identified in Paragraph 95.B). In either case, Navajo or Montana Refining, 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, New Mexico, or Montana;
- iv. for Navajo, the completion of the projects set forth in Paragraphs 29 - 33;
- v. the receipt of permits incorporating the emission limits established under Section V;
- vi. EPA's receipt of the first calendar quarterly progress report following the conclusion of the operation by Navajo or Montana Refining, as applicable, for at

least one year of all units in compliance with the emission limits established herein; and

- vii. Navajo or Montana Refining, as applicable, has certified compliance pursuant to Paragraph 95.A.i-vi, above, to the United States and the Applicable State Agency in writing.

B. Unless, within 120 days of receipt of the certification required by Paragraph 95.A.vii., either the United States or the Applicable State Agency objects in writing with specific reasons, the Court may upon motion by Navajo or Montana Refining, as applicable, order that this Consent Decree as to the petitioning Defendant be terminated. If either the United States or the Applicable State Agency objects to the certification by Navajo or Montana Refining, 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, Navajo or Montana Refining, as applicable, shall bear the burden of proving that this Consent Decree should be terminated.

**XIX. SIGNATORIES**

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

Dated and entered this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

\_\_\_\_\_  
UNITED STATES DISTRICT JUDGE

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

FOR PLAINTIFF THE UNITED STATES OF AMERICA:

Date: \_\_\_\_\_

\_\_\_\_\_  
JOHN C. CRUDEN  
Acting Assistant Attorney General  
Environment and Natural Resources Division  
United States Department of Justice

Date: \_\_\_\_\_

\_\_\_\_\_  
ANNETTE M. LANG  
Trial Attorney  
Environmental Enforcement Section  
Environment and Natural Resources  
Division  
United States Department of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044-7611

DAVID C. IGLESIAS  
United States Attorney for the  
District of New Mexico

Date: \_\_\_\_\_

By: \_\_\_\_\_  
RAYMOND HAMILTON  
Assistant United States Attorney  
United States Attorneys Office for the District of  
New Mexico  
P.O. Box 607  
Albuquerque, NM 87103

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

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: \_\_\_\_\_

\_\_\_\_\_  
SYLVIA LOWRANCE  
Acting 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. Navajo Refining Co. and Montana Refining Co., subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR PLAINTIFF-INTERVENOR THE STATE OF NEW MEXICO

Date: \_\_\_\_\_

\_\_\_\_\_  
PETER MAGGIORE  
Secretary  
New Mexico Environment Department  
P.O. Box 26110  
1190 St. Francis Dr.  
Santa Fe, NM 87502-6110

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

FOR PLAINTIFF-INTERVENOR STATE OF MONTANA

Date: \_\_\_\_\_

\_\_\_\_\_  
JAN P. SENSIBAUGH  
Director  
Montana Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59620-0901

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. Navajo Refining Co. and Montana Refining Co.

FOR DEFENDANT NAVAJO REFINING COMPANY, L.P.

Date: \_\_\_\_\_

\_\_\_\_\_  
MATTHEW P. CLIFTON  
President  
Navajo Refining Company, L.P.  
P.O. Box 159  
501 E. Main St.  
Artesia, NM 88211

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. Navajo Refining Co. and Montana Refining Co.

FOR DEFENDANT MONTANA REFINING COMPANY

Date: \_\_\_\_\_

\_\_\_\_\_  
LELAND GRIFFIN  
Refinery Manager  
Montana Refining Company  
1900 10<sup>th</sup> St., N.E.  
Great Falls, MT 59404

WE HEREBY CONSENT to the entry of the Consent Decree in United States, et al. v. Navajo Refining Co. and Montana Refining Co.

FOR HOLLY CORPORATION

Date: \_\_\_\_\_

\_\_\_\_\_  
MATTHEW P. CLIFTON  
President  
Holly Corporation  
100 Crescent Court  
Suite 1600  
Dallas, TX 75201-6927

# **APPENDIX A**

**MAY 10, 2001 NMED COMPLIANCE ORDER;  
JULY 27, 2001 NMED COMPLIANCE ORDER**

# **APPENDIX B**

## **LIST OF FLARING DEVICES**

**APPENDIX B**

**LIST OF FLARING DEVICES AT THE ARTESIA, LOVINGTON AND  
GREAT FALLS REFINERIES**

**A. ACID GAS FLARING DEVICES**

**Navajo Refinery- Artesia, NM**

North Plant Flare (FL-400)

FCC Unit Flare (FL-402)

Alky/CCR Flare (FL-403)

**B. HYDROCARBON FLARING DEVICES**

**Navajo Refinery- Artesia, NM**

South Plant Flare (FL-401)

North Plant Flare (FL-400)

FCC Unit Flare (FL-402)

Alky/CCR Flare (FL-403)

GOHT Flare (FL-404) (not installed as of Date of Lodging)

**Navajo Refinery - Lovington NM**

LPG Flare (FL-1001)

**Montana Refining Refinery - Great Falls, MT**

Emergency Flare (D-720)

# **APPENDIX C**

## **LIST OF CONTROLLED HEATERS AND BOILERS**

**APPENDIX C**

**CONTROLLED HEATERS AND BOILERS AND  
RETROFIT SCHEDULE  
FOR CONTROLLED HEATERS AND BOILERS**

<u>Equipment Identification</u>	<u>Heat Input Design Capa. (MMBtu/hr)</u>	<u>Deadline for Retrofit Dec-02</u>	<u>Deadline for Retrofit Dec-03</u>	<u>Deadline for Retrofit Dec-05</u>	<u>Deadline for Retrofit Dec-09</u>
ARTESIA:					
B-7	232.0	X			
B-8	258.0		X		
H-20	93.8			X	
H-601	55.0			X (Per permit application dated May 2001*)	
H-600	88.0				X
70-H1/H2/H3	188.0				X
LOVINGTON:					
H-101	112.3			X	
B-SG-1101A	48.7				X
B-SG-1101B	48.7				X
Retrofitted Capacity		232.0	258.0	206.1**	373.4
% of Heaters/Boilers >40 MMBtu/hr**:		21.7%	24.1%	19.3%	34.9%

---

\* Will be installed with Next generation Ultra-Low NOx when built  
(As per permit application)

\*\* Excluding H-601

# **APPENDIX D**

**DETERMINING THE OPTIMIZED ADDITION  
RATES OF LOW NO<sub>x</sub> COMBUSTION  
PROMOTORS AND NO<sub>x</sub> REDUCING  
CATALYST ADDITIVES  
AT THE ARTESIA FCCU**

## APPENDIX D

### **DETERMINING THE OPTIMIZED ADDITION RATES OF LOW NO<sub>x</sub> COMBUSTION PROMOTORS AND NO<sub>x</sub> REDUCING CATALYST ADDITIVES AT THE ARTESIA FCCU**

#### **I. PURPOSE**

This Appendix defines a process by which Navajo shall determine for the Artesia FCCU the Optimized Addition Rates for Low NO<sub>x</sub> Combustion Promotors and NO<sub>x</sub> Reducing Catalyst Additives during the Optimization Period.

#### **II. ESTABLISHING AN OPTIMIZED LOW NO<sub>x</sub> COMBUSTION PROMOTOR ADDITION RATE**

---

**A. Overview.** Establishing an Optimized Low NO<sub>x</sub> Combustion Promotor Addition Rate for the Artesia FCCU is a three-step process: (1) establishing a minimum addition rate for the conventional combustion promotor that Navajo currently uses such that the effectiveness of the conventional combustion promotor is maintained (the “Minimum Conventional Combustion Promotor Addition Rate”); (2) replacing the conventional combustion promotor with Low NO<sub>x</sub> Combustion Promotor at an addition rate that is the functional equivalent of the Minimum Conventional Combustion Promotor Addition Rate (the “Initial Low NO<sub>x</sub> Combustion Promotor Addition Rate”); and (3) increasing the addition rate up to two times the Initial Low NO<sub>x</sub> Combustion Promotor Addition Rate if the Initial Low NO<sub>x</sub> Combustion Addition Rate is not effective (the “Optimized Low NO<sub>x</sub> Combustion Promotor Addition Rate”).

**B. “Effectiveness” Determinations.** The effectiveness of conventional combustion promotor shall be determined by the following criteria: (1) afterburn is controlled and regenerator temperature and combustion levels are adequately maintained; and (2) temperature excursions are brought under control adequately. The effectiveness of Low NO<sub>x</sub> Combustion

Promotor shall be determined by those two criteria and by whether a measurable reduction in NOx emissions occurs.

**C. Establishing the Minimum Conventional Combustion Promotor Addition Rate.**

Navajo shall reduce its historical usage of conventional combustion promotors to the point that the addition rate is the minimum necessary to retain the effectiveness of the conventional combustion promotor that Navajo is using (“Minimum Conventional Combustion Promotor Addition Rate”).

**D. Establishing the Initial Low NOx Combustion Promotor Addition Rate.** Based on information provided by the vendor, Navajo shall replace conventional combustion promotor with Low NOx Combustion Promotor at a rate that is the functional equivalent of the Minimum Conventional Combustion Promotor Addition Rate. This functionally equivalent rate shall be called the Initial Low NOx Combustion Promotor Addition Rate.

**E. Establishing the Optimized Low NOx Combustion Promotor Addition Rate.** If the Low NOx Combustion Promotor is not effective at the Initial Low NOx Combustion Promotor Addition Rate, Navajo shall increase, by up to two times, the Initial Low NOx Combustion Promotor Addition Rate. If, at two times the Initial Low NOx Combustion Promotor Addition Rate, the Low NOx Combustion Promotor is not effective, Navajo may discontinue the use of Low NOx Combustion Promotor.

### III. ESTABLISHING AN OPTIMIZED NO<sub>x</sub> REDUCING CATALYST ADDITIVE ADDITION RATE

A. **Overview.** The Optimized NO<sub>x</sub> Reducing Catalyst Additive Addition Rate shall be determined by evaluating NO<sub>x</sub> emissions reductions and annualized costs at three different addition rates.

B. **The Increments.** The three addition rates or “increments” shall be:

- 1.0 Weight % NO<sub>x</sub> Reducing Catalyst Additive
- 1.5 Weight % NO<sub>x</sub> Reducing Catalyst Additive
- 2.0 Weight % NO<sub>x</sub> Reducing Catalyst Additive

C. **The Procedure.** Navajo shall successively add NO<sub>x</sub> Reducing Catalyst Additive at each increment set forth above. Once a steady state has been achieved at each increment, Navajo shall evaluate the performance of the NO<sub>x</sub> Reducing Catalyst Additive in terms of NO<sub>x</sub> emissions reductions and projected annualized costs. The final Optimized NO<sub>x</sub> Reducing Catalyst Additive Addition Rate shall occur at the lowest addition rate where either:

- (1) the FCCU meets 20 ppmvd NO<sub>x</sub> (corrected to 0% O<sub>2</sub>) on a 365-day rolling average, in which case Navajo shall agree to accept limits of 20 ppmvd NO<sub>x</sub> (corrected to 0% O<sub>2</sub>) on a 365-day rolling average basis at the conclusion of the Demonstration Period;
- (2) the total annualized cost-effectiveness of the NO<sub>x</sub> Reducing Catalyst Additive used exceeds \$10,000 per ton of NO<sub>x</sub> removed as measured from an uncontrolled baseline (as estimated based on current operating parameters as compared to operating parameters during the baseline period); or
- (3) the Incremental NO<sub>x</sub> Reduction Factor is less than 1.8, where the Incremental NO<sub>x</sub> Reduction Factor is defined as:

$$\frac{PR_i - PR_{i-1}}{CAR_i - CAR_{i-1}} \text{ where:}$$

$PR_i$  = Pollutant (NO<sub>x</sub>) reduction rate at increment i in pounds per day from the baseline

$PR_{i-1}$  = Pollutant (NO<sub>x</sub>) reduction rate at the increment prior to increment i in pounds per day from the baseline

$CAR_i$  = Total Catalyst Additive Rate at increment i in pounds per day from the baseline

$CAR_{i-1}$  = Total Catalyst Additive Rate at the increment prior to increment i in pounds per day from the baseline

If the conditions of either (1), (2), or (3) above are not met at any addition rate less than 2.0

Weight % NOx Reducing Catalyst Additive, then the Optimized Addition Rate shall be 2.0

Weight % NOx Reducing Catalyst Additive.

# **APPENDIX E**

## **NSPS SUBPART J COMPLIANCE SCHEDULE FOR FLARES**

## APPENDIX E

### NSPS SUBPART J COMPLIANCE SCHEDULE FOR FLARES

<u>Source</u>	<u>Date of Compliance</u>	<u>Method/Proof of Compliance</u>
<b>NAVAJO REFINERY</b> <b><u>ARTESIA, NM</u></b>		
North Plant Flare (FL-400)	Immediate	For each routinely-generated refinery fuel gas stream that is directed to this flare on a continuous or intermittent basis, Navajo will monitor this stream with either (i) a CEMS; or (ii) will submit for EPA approval, a fully-approvable alternative monitoring plan (“AMP”) by no later than 90 days after the Date of Lodging of this Consent Decree.
FCC Unit Flare (FL-402)	Immediate	Same as above.
Alky/CCR Flare (FL-403)	Immediate	Same as above.
South Plant Flare (FL-401)	Immediate	Same as above.
GOHT Flare (FL-404)	Date of Installation	Same as above, except that if Navajo monitors by means of an AMP, Navajo shall submit the AMP by no later than 90 days after installation of this Flare

**NAVAJO REFINERY,  
LOVINGTON, NM**

LPG Flare (FL-1001)

December 31, 2006

By no later than June 30, 2007, Navajo shall submit for EPA approval, a fully-approvable AMP.

**MONTANA REFINING,  
GREAT FALLS, MT**

Emergency Flare (D-720)

Immediate

By no later than 180 days after the Date of Lodging of this Consent Decree, Montana Refining shall submit for EPA approval, a fully-approvable AMP.

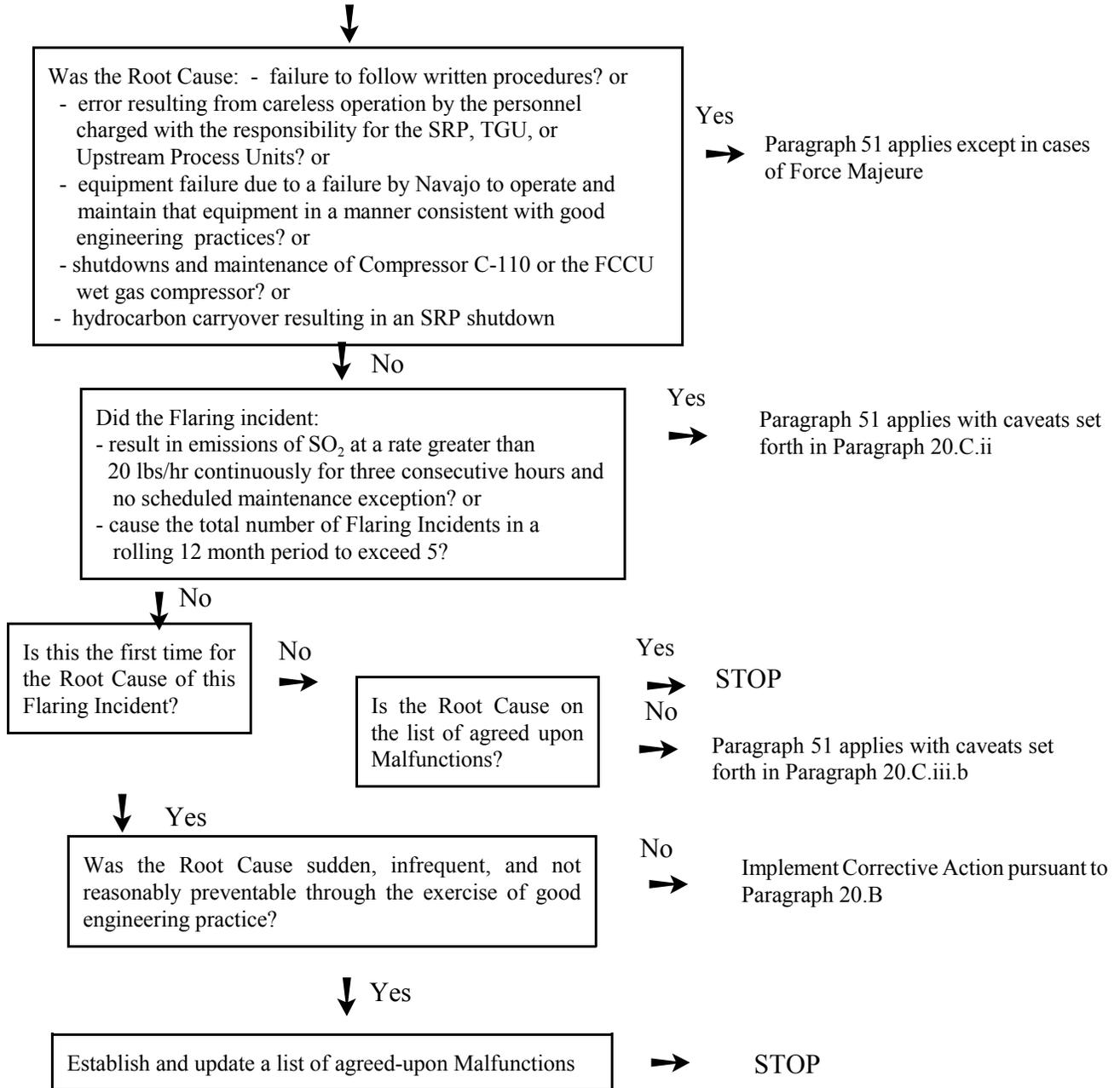
# **APPENDIX F**

## **LOGIC DIAGRAM FOR PARAGRAPH 20**

**APPENDIX F**

**LOGIC DIAGRAM FOR PARAGRAPH 20**

**ALL FLARING INCIDENTS**



# **APPENDIX G**

**REPORTS, PLANS AND CERTIFICATIONS  
FOR THE BENZENE WASTE NESHAP  
ENHANCED PROGRAM PROVISIONS  
OF PARAGRAPH 22**

**APPENDIX G**

**REPORTS, PLANS AND CERTIFICATIONS  
UNDER THE BENZENE WASTE NESHAP ENHANCED PROGRAM  
PROVISIONS OF PARAGRAPH 22 OF THE CONSENT DECREE IN  
UNITED STATES ET AL. V. NAVAJO REFINING CO. ET AL.**

Name or Summary of the Report, Plan, or Certification	CD Sub-Para No.	Applicable Refinery(ies) "All" means all Covered Refineries	Rqd. ("R") v. Contingent ("C")	One-Time ("1") v. Quarterly ("Q")	Due Date
BWN Compliance Review and Verification Report	C.i.	All	R	1	270 D after Lodging
Amended BWN Compliance Review and Verification Report	C.ii.	All	C	1	90 D after completing additional sampling requested by EPA
Amended TAB Report	D.i	All	C	1	60 D after completing BWN Compliance Review and Verification Report
Plan to comply w/ 6 BQ if TAB equals or is greater than 10	D.ii; J.vi.	All	C	1	180 D after completing BWN Compliance Review and Verification Report
Compliance Certification	D.iv	All	C	1	30 D after completing all actions necessary to come into compliance
Waste/Slop/Off-Spec Oil Schematics	H.i.	All	R	1	90 D after Lodging
Revised Waste/Slop/Off-Spec Oil Schematics	H.i.	All	C	1	Mutually-agreed upon time between Navajo and/or Montana Refining and EPA

Schedule to complete installation of controls on waste management units handling organic benzene waste	H.ii.	All	C	1	Mutually-agreed upon time between Navajo and/or Montana Refining and EPA, not to exceed 2 years
Plan to quantify uncontrolled waste/slop/off-spec oil movements	H.iv.	All	R	1	90 D after EPA has approved schematics
EOL Sampling Plan	I.i; J.ii	All	C	1	2 mos. after the 22.D.iii Certification (if TAB is 10 mg/yr or greater); 90 days after submitting final BWN Compliance Review and Verification Report (if TAB is 1 Mg/yr or more but less than 10)
EOL Revised Sampling Plan	I.ii; J.ii.	All	C	As needed	If and when Navajo and/or Montana Refining become aware of factors indicating original plan no longer accurately reflects EOL benzene quantity
Plan to ensure that uncontrolled benzene does not equal or exceed, as applicable, 6 or 10 Mg/yr or that it is minimized	I.vii; J.iv- J.v	All	C	1	30 D after the end of the Q in which the projected calendar year benzene quantity is equal to or greater than 6 or 10 Mg.
Proposal for Third-Party TAB Study and Compliance Review	I- viii; J.vi	All	C	1	Last day of 4 <sup>th</sup> Q as set forth in ¶ I.viii. (if TAB is 10 mg/yr or greater); As agreed bet. EPA and Navajo and/or Montana (if TAB is 1 Mg/yr or more but less than 10) Refining

Third-Party TAB Study and Compliance Review	I-viii; J.vi	All	C	1	30 D after receipt of the Third-Party Study and Compliance Review
Plan to implement the results of the Third-Party TAB Study and Compliance Review	I-viii; J.vi;	All	C	1	120 D after receipt of the Third-Party TAB Study and Compliance Review
Report on training done in that Q	G.i-iii.; Mii-a(1)	All	C	Q	Each Qtrly Report due under the Decree
Results of annual sampling of >0.05 Mg/yr benzene streams	J.i; Mii-a(2)	All	C	Q	In the first Qtrly Report for the first calendar Q of each year
Results of 3 Months of Monthly EOL Results	I.iii; J.iii; Mii-a(3); Mii-b(2)	All	C	Q	Each Qtrly Report due under the Decree
Results of Sampling of > 0.05 Streams	I.iv I.v; Mii-b(3)	All	C	Q	Each Qtrly Report due under the Decree,
Results of Sampling of > 0.03 Streams	I.vi Mii-b(3)	All	C	Q	Each Qtrly Report due under the Decree,

# **APPENDIX H**

**REPORTS, PLANS AND CERTIFICATIONS  
FOR THE LDAR  
ENHANCED PROGRAM PROVISIONS  
OF PARAGRAPH 23**

**APPENDIX H**

**REPORTS, PLANS AND CERTIFICATIONS  
UNDER THE LDAR ENHANCED PROGRAM  
PROVISIONS OF PARAGRAPH 23 OF THE CONSENT DECREE IN  
UNITED STATES, ET AL. V. NAVAJO REFINING CO., ET AL.**

Name or Summary of the Report, Plan, or Certification	CD Sub-Para Nos.	Applicable Refinery(ies) “All” means all Covered Refineries	Rqd. (“R”) v. Contingent (“C”)	One-Time (“1”) v. Quarterly or w/ §63.654 Reports (“>1”)	Due Date
Written Refinery-Wide LDAR Program	A; O.i.a	All	R	1	150 D after Lodging
Updated Refinery-Wide LDAR Program	A	All	C	1	As needed
Report on training for new LDAR personnel	B.i; O.ii-c(1)	All	R	>1	In each Section 63.654 Report
Report on annual training for LDAR personnel	B.ii; O.ii-c(1)	All	R	>1	In each Section 63.654 Report
Report on LDAR training for refinery and operations personnel who hold positions relevant to LDAR	B.iii O.ii-c(1)	All	R	>1	In each Section 63.654 Report

LDAR audit reports and records of corrective actions	D; O.ii-b.	All	R	>1	In the Qtrly Report for the 1 <sup>st</sup> calendar Q of each year
Certification of implementation of the first attempt at repair program	G; O.ii-a(1)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Operational specifications for electronic LDAR data collection and transfer	I.ii.; O.i.b	All	R	1	6 mos. after Lodging for Navajo; 1 yr. after Lodging for Montana Refining
Certification of implementation of QA/QC procedures for review of data generated by LDAR monitoring technicians	J; O.ii-a(2)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Identification of each Refinery's LDAR "point" person	K; O.ii-a(3)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Certification of the development of a tracking program for new valves and pumps	L; O.ii-a(4)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Certification of implementation of calibration drift assessment procedures	M; O.ii-a(5)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Certification of implementation of the "delay of repair" procedures	N; O.ii-a(6)	All	R	1	In the first Qtrly report due under the CD or the first Qtrly report in which the rqmt. becomes due
Quarterly monitoring reports	O.ii-c(2)	All	R	>1	In each Section 63.654 Report