

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA, )  
STATE OF ILLINOIS, )  
STATE OF LOUISIANA, and the )  
STATE OF MONTANA )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
EXXON MOBIL CORPORATION and )  
EXXONMOBIL OIL CORPORATION )  
 )  
Defendants. )  
\_\_\_\_\_ )

Case No. 05 C 5809

The Honorable Rebecca R. Pallmeyer

**THIRD AMENDMENT MAKING MATERIAL MODIFICATIONS TO  
CONSENT DECREE**

WHEREAS, the Plaintiffs filed a complaint in this matter on October 11, 2005, alleging violations of the Clean Air Act, 42 U.S.C. §§ 7401-7671q, and other environmental laws at six petroleum refineries owned and operated by Defendants Exxon Mobil Corporation and ExxonMobil Oil Corporation (collectively referred to herein as “ExxonMobil”), and the United States thereafter lodged a proposed Consent Decree between the Plaintiffs and the Defendants.

WHEREAS, the Court approved and entered the Consent Decree on December 13, 2005 (hereinafter the “2005 Consent Decree”).

WHEREAS, the 2005 Consent Decree specified that the Court would retain continuing jurisdiction for the purpose of enforcing and modifying the Decree.

WHEREAS, Paragraph 269 of the 2005 Consent Decree provides that any material modifications to the Decree shall be in writing, shall be signed by the U.S. Environmental Protection Agency (“EPA”), the Applicable Co-Plaintiff, and ExxonMobil, and shall be effective upon approval by the Court. In contrast, non-material modifications do not require Court approval, although Paragraph 269 of the 2005 Consent Decree specifies that non-material modifications shall be filed with the Court after being executed by EPA and ExxonMobil.

WHEREAS, EPA and ExxonMobil previously agreed to two stipulated non-material modifications to the 2005 Consent Decree, which were filed with the Court on June 1, 2006 and November 13, 2007.

WHEREAS, the parties to this Third Amendment Making Material Modifications to Consent Decree (the “Third Decree Amendment”) have agreed to certain material modifications to the 2005 Consent Decree, as set forth herein. Unlike the two prior non-material modifications, Court approval is required for these material modifications. The modifications address certain injunctive obligations relating to ExxonMobil’s refineries in Billings, Montana, Beaumont,

Texas, and Joliet, Illinois, so the State of Montana and the State of Illinois are parties to this agreement, as Applicable Co-Plaintiffs, along with the United States and ExxonMobil (collectively, the “Parties”).

WHEREAS, as specified herein, this Third Decree Amendment affords ExxonMobil additional time to install certain air pollution control equipment that is required by the 2005 Consent Decree in exchange for ExxonMobil’s commitment to implement additional injunctive relief, including accelerating installation of other air pollution control equipment and taking certain other steps to reduce air pollutant emissions from its refineries. The additional injunctive relief under this Third Decree Amendment will yield emissions reductions that will more than offset any excess emissions during the time extensions afforded by this Third Decree Amendment.

WHEREAS, for the sake of clarity, this Third Decree Amendment restates and incorporates the changes made by the two prior non-material modifications to the 2005 Consent Decree. This Third Decree Amendment also makes certain other minor and conforming changes to the 2005 Consent Decree.

WHEREAS, the Parties recognize, and the Court by entering this Third Decree Amendment finds, that this Third Decree Amendment has been negotiated at arms-length and in good faith and that this Third Decree Amendment is fair, reasonable, and in the public interest.

NOW THEREFORE, before the taking of any testimony, without adjudication of any issue of fact or law, and upon the consent and agreement of the Parties, it is hereby ORDERED, ADJUDGED and DECREED as follows:

**AMENDED AND RESTATED CONSENT DECREE PROVISIONS**

The 2005 Consent Decree shall remain in full force and effect in accordance with its terms, except that Paragraphs 14, 15, 17, 18, 20, 29, 30, 72, 143, 145, 166, 167, 237, 250, and 266, and Appendices C, D, and G are revised as set forth below and shall become effective no later than December 31, 2008, if entered by this Court.

\* \* \* \*

14. **NOx Emissions Control for the Beaumont FCCU.**

a. **NOx Control System.** ~~By no later than April 1, 2008,~~ ExxonMobil shall control NOx emissions from the Beaumont FCCU by installing and operating a SCR system for the FCCU. ~~ExxonMobil presently intends to control NOx emissions from the Beaumont FCCU by: (i) installing and operating a Thermal DeNOx system; (ii) installing and operating CO boiler low NOx burners; and/or (iii) shifting the FCCU to a lower CO operation mode. ExxonMobil shall use best efforts to design the NOx control system to attain 50 ppmvd NOx or less (at 0% O<sub>2</sub> on a 365-day rolling average basis) and 100 ppmvd NOx or less (at 0% O<sub>2</sub> on a 7-day rolling average basis); provided, however, that ExxonMobil shall not be required to design the control system in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate or yield selectivity. Nothing in this Subparagraph 14.a shall be deemed to limit ExxonMobil's ability to implement or use additional NOx reducing measures.~~

b. **Final NOx Limits.** By no later than July 1, 2009, ExxonMobil shall comply with NOx emission limits of 50 ppmvd at 0% O<sub>2</sub> on a 365-day rolling average basis and 100 ppmvd at 0% O<sub>2</sub> on a 7-day rolling average basis at the Beaumont FCCU.

~~(1) The long term Final NOx Limit for the Beaumont FCCU shall be set based on application of the provisions in Subparagraph 15.c., and shall be: (i) in the range of 50-60 ppmvd NOx (at 0% O<sub>2</sub> on a 365-day rolling average basis); and (ii) as close to 50 ppmvd as practicable. ExxonMobil shall comply with the long term Final NOx Limit upon submission of the Study report referenced in Subparagraphs 15.b. and 15.c.~~

~~(2) The short term Final NOx Limit for the Beaumont FCCU shall be set based on application of the provisions in Subparagraph 15.c., and shall be: (i) in the range of 100-120 ppmvd NOx (at 0% O<sub>2</sub> on a 7-day rolling average basis); and (ii) as close to 100 ppmvd as practicable. ExxonMobil shall comply with the short term Final NOx Limit upon submission of the Study report referenced in Subparagraphs 15.b. and 15.c.~~

c. Interim NOx Control Measures. Beginning April 1, 2008, ExxonMobil shall use best efforts to minimize NOx emissions from the Beaumont FCCU by minimizing supplemental firing to the CO Boiler and/or by minimizing FCCU regenerator outlet CO to the full extent without adversely impacting FCCU feed rate, conversion, feed slate, or yield selectivity, unless reasonable steps can be taken to compensate for such impairment. The requirement to perform these Interim NOx Control Measures will remain in effect until the Final NOx Limits specified in Subparagraph 14.b become applicable.

\* \* \* \*

15. **Baton Rouge and Beaumont NOx Minimization StudyStudies.** ExxonMobil shall complete a 12-month studyies of: ~~(i) the Baton Rouge FCCUs' NOx control system, by no later than 12 months after the Entry Date (the "Baton Rouge NOx Minimization Study"); and (ii)~~

~~the Beaumont FCCU NO<sub>x</sub> control system, by no later than July 1, 2009 (the “Beaumont NO<sub>x</sub> Minimization Study”).~~

a. During ~~the each~~ Study, ExxonMobil shall use best efforts to operate the FCCU and the NO<sub>x</sub> control system to achieve emissions as close as practicable to 50 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 365-day rolling average basis) and 100 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 7-day rolling average basis); provided, however, that ExxonMobil shall not be required to operate the FCCU(s) or the control system in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate or yield selectivity, unless reasonable steps can be taken to compensate for such impairment.

b. Within 90 days after the completion of ~~the each~~ Study, ExxonMobil shall submit a written report to EPA that shall summarize the results of the Study and shall provide relevant CEMS data and FCCU feed and operating data on a daily or daily average basis as measured directly (where available) or as calculated (where necessary). Upon request by EPA, ExxonMobil shall submit any additional, readily available data that EPA determines it needs to evaluate the Study.

c. Based on the results of the Study, ~~the each~~ Study report shall specify Final NO<sub>x</sub> Limits for the ~~relevant~~ FCCU(s) within the ranges set forth in Subparagraphs 13.b. ~~and 14.b.~~ ExxonMobil shall specify limits which reflect best efforts to achieve emissions as close as practicable to 50 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 365-day rolling average basis) and 100 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 7-day rolling average basis); provided, however, that ExxonMobil shall not be required to specify a limit below the upper end of the range that would create a safety problem or impair unit feed rate, conversion, feed slate or yield selectivity.

d. If ~~the any~~-limit specified pursuant to Subparagraph 15.c is higher than 50 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 365-day rolling average basis) or 100 ppmvd NO<sub>x</sub> (at 0% O<sub>2</sub> on a 7-day rolling average basis), then the ~~relevant~~ Study report shall include a plan for making supplemental NO<sub>x</sub> emission reductions from Combustion Units at the Baton Rouge ~~relevant~~ refinery, in accordance with the following table:

<u>Long-Term Limit</u>	or	<u>Short-Term Limit</u>	<u>Additional Required Reductions</u>
50 ppmvd		100 ppmvd	0 TPY NO <sub>x</sub>
51 ppmvd		101-102 ppmvd	12 TPY NO <sub>x</sub>
52 ppmvd		103-104 ppmvd	26 TPY NO <sub>x</sub>
53 ppmvd		105-106 ppmvd	42 TPY NO <sub>x</sub>
54 ppmvd		107-108 ppmvd	60 TPY NO <sub>x</sub>
55 ppmvd		109-110 ppmvd	80 TPY NO <sub>x</sub>
56 ppmvd		111-112 ppmvd	102 TPY NO <sub>x</sub>
57 ppmvd		113-114 ppmvd	126 TPY NO <sub>x</sub>
58 ppmvd		115-116 ppmvd	152 TPY NO <sub>x</sub>
59 ppmvd		117-118 ppmvd	180 TPY NO <sub>x</sub>
60 ppmvd		119-120 ppmvd	210 TPY NO <sub>x</sub>

Such supplemental NO<sub>x</sub> reductions: (i) shall be in addition to those NO<sub>x</sub> emission reductions from Combustion Units required by Subsection V.G of this Consent Decree, and shall not count toward the reductions required by that Subsection; and (ii) shall be quantified, made, and incorporated into federally-enforceable permits in a manner consistent with the approach outlined in Subsections V.G and V.Q of this Consent Decree. If supplemental NO<sub>x</sub> reductions are required under this Subparagraph, then ExxonMobil's Study report shall include a definitive schedule for making the supplemental NO<sub>x</sub> reductions, and for submitting a completion report documenting the reductions. The schedule shall be subject to EPA approval, which shall not be unreasonably withheld.

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17. **NOx Emissions Control for the Billings FCCU.**

a. NOx Control System. ExxonMobil shall control emissions from the Billings FCCU by installing and operating a SCR system for the FCCU~~presently intends to control NOx emissions from the Billings FCCU by: (i) converting the FCCU to Full Burn Operation; and (ii) taking other steps to reduce NOx (which may include, but are not limited to, use of a Thermal DeNOx system and/or CO boiler low NOx burners and/or use of NOx reducing catalyst additive and/or low NOx combustion promoter).~~

b. Interim~~Final~~ NOx Limits. By no later than June 30, 2009~~December 31, 2008~~, ExxonMobil shall comply with interim NOx emission limits of 40 ppmvd at 0% O<sub>2</sub> on a 365-day rolling average basis and 80 ppmvd at 0% O<sub>2</sub> on a 7-day rolling average basis at the Billings FCCU.

c. NOx Reduction Study.

(1) By no later than December 31, 2010 ExxonMobil shall complete a 12-month study of the Billings FCCU SCR system with the objective of establishing a final long-term NOx emission limit that is: (i) in the range of 30-40 ppmvd NOx (at 0% O<sub>2</sub> on a 365-day rolling average basis); and (ii) as close to 30 ppmvd as practicable. During the Study, ExxonMobil shall use best efforts to operate the FCCU and the NOx control system to achieve emissions as close as practicable to 30 ppmvd NOx (at 0% O<sub>2</sub> on a 365-day rolling average basis) or less; provided, however, that ExxonMobil shall not be required to operate the FCCU or the control system in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate or yield selectivity, unless reasonable steps can be taken to compensate for such impairment.



(2) By February 28, 2011, ExxonMobil shall submit a Report which summarizes the results of the NOx Reduction Study and provides all relevant NOx and O<sub>2</sub> CEMS data and any other data relevant to the Study. Based on the results of the Study, the Report shall propose a long-term NOx limit for the Billings FCCU that is consistent with the criteria described in Subparagraph 17.c.(1).

(3) ExxonMobil shall comply with the long-term emission limit it proposes for the Billings FCCU beginning immediately upon submission of the Report. ExxonMobil shall continue to comply with that proposed long-term limit unless and until ExxonMobil is required to comply with the long-term emission limit set by EPA pursuant to Subparagraph 17.d.

d. Establishment of Final NOx Limits for the Billings FCCU. EPA will use the data collected during the Billings FCCU NOx Reduction Study, as well as all other available and relevant information, to establish a final long-term limit for NOx emissions from the Billings FCCU that is consistent with the criteria described in Subparagraph 17.c.(1). EPA will establish a 365-day rolling average concentration-based (ppmvd) NOx emission limit, corrected to 0% oxygen, which can be met with a reasonable certainty of compliance. This limit may be the same as the limit proposed by ExxonMobil in accordance with Subparagraph 17.c. The interim short-term (7-day rolling average) NOx emission limit of 80 ppmvd, corrected to 0% O<sub>2</sub>, shall remain unchanged and shall become the final short-term limit. ExxonMobil may propose, and EPA may establish, alternative emissions limits to be applicable during alternative operating scenarios. EPA will determine the limit based on: (i) the level of performance during the NOx Reduction Study period; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information. EPA will notify ExxonMobil of its determination of the long-term

concentration-based NOx emission limit. ExxonMobil shall immediately (or within thirty (30) days, if EPA's limit is more stringent than the limit proposed by ExxonMobil) operate the FCCU so as to comply with the EPA-established emission limit. Disputes regarding the appropriate emission limit shall be resolved in accordance with the dispute resolution provisions of this Decree.

~~e.e.~~ Non-Routine Operations. FCCU NOx emissions during a period of natural gas curtailment will not be used in determining compliance with the short-term (7-day) Final NOx Limit established pursuant to Subparagraph 17.b if Fuel Oil is burned in a combustion unit serving the Billings FCCU CO boiler or CO furnace during the period of natural gas curtailment. During any such period of natural gas curtailment, ExxonMobil shall comply with an alternate short-term NOx emission limit of 120 ppmvd at 0% O<sub>2</sub> on 24-hour rolling average basis at the Billings FCCU.

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18. **NOx Emissions Control for the Joliet FCCU.**

a. NOx Control System. ExxonMobil presently intends to control emissions from the Joliet FCCU by installing and operating a SCR system for the FCCU.

b. Final NOx Limits. By no later than December 31, ~~2010~~<sup>2012</sup>, ExxonMobil shall comply with NOx emission limits of 20 ppmvd at 0% O<sub>2</sub> on a 365-day rolling average basis and 40 ppmvd at 0% O<sub>2</sub> on a 7-day rolling average basis at the Joliet FCCU.

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20. **Startup, Shutdown, and Malfunction.** NOx emissions (i) caused by or attributable to the startup, shutdown, or Malfunction of an FCCU listed in Subsection V.A and/or

(ii) during periods of Malfunction of the relevant FCCU's NOx Control System will not be used in determining compliance with the short-term (7-day) Interim NOx Limits or Final NOx Limits established pursuant to Subparagraphs 13.b.(2), 14.b.(2), 16.b, 16.c, 17.b, 17.d, 18.b, and 19.b, provided that during such periods ExxonMobil implements good air pollution control practices to minimize NOx emissions. Nothing in this Paragraph shall be construed to relieve ExxonMobil of any obligation under any federal, state, or local law, regulation, or permit to report emissions during periods of startup, shutdown, or Malfunction, or to document the occurrence and/or cause of a startup, shutdown, or Malfunction event. Emissions during any such period of startup, shutdown, or Malfunction shall either be: (i) monitored with CEMS as provided by Paragraph 21; or (ii) monitored in accordance with an alternative monitoring plan approved by EPA pursuant to this Consent Decree if it is necessary to bypass the FCCU's main stack during the particular period of startup, shutdown, or Malfunction.

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29. **SO<sub>2</sub> Emissions Control for the Billings FCCU.**

a. SO<sub>2</sub> Control System. ExxonMobil presently intends to control SO<sub>2</sub> emissions from the Billings FCCU by: (i) converting the FCCU to Full Burn Operation; and (ii) implementing a special two-step protocol using SO<sub>2</sub> Reducing Catalyst Additives, as summarized below.

(1) Step 1. Step 1 of the protocol will commence shortly after the Entry Date. Step 1 will require a performance of a short-term trial to identify the commercially-available catalyst additive that achieves the greatest SO<sub>2</sub> reduction at the Required Addition Rate. Once the best-performing additive is identified, ExxonMobil

shall use that additive at the Required Addition Rate, except as otherwise required in Subparagraph 30.f, whenever the unit is operated, until Step 2 of the protocol.

(2) Step 2. Step 2 of the protocol will commence several years after the Entry Date. Step 2 will require a performance of another short-term trial to identify the future-generation commercially-available catalyst additive that achieves the greatest SO<sub>2</sub> reduction at the Required Addition Rate. Once the best-performing additive is identified, ExxonMobil shall use that additive at the Required Addition Rate during a defined demonstration period.

(3) Required Addition Rate. For the purpose of this Paragraph 29 and Paragraph 30, the term “Required Addition Rate” shall mean addition of 20.0 Average Weight % of Total Catalyst Added, unless EPA agrees to a lesser weight % addition rate for a particular SO<sub>2</sub> Reducing Catalyst Additive based on a demonstration by ExxonMobil that a lesser addition rate achieves an equal or greater total reduction in SO<sub>2</sub> emissions from the Billings FCCU. The Average Weight % of Total Catalyst Added shall be calculated based on the Total Catalyst Addition Rate during the two year baseline period from November 2001 to October 2003. As required by this Paragraph 29 and Paragraph 30, ExxonMobil shall add SO<sub>2</sub> Reducing Catalyst Additive at the Required Addition Rate in a manner that minimizes SO<sub>2</sub> emissions; provided, however, that ExxonMobil shall not be required to use the Additive in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate or yield selectivity, unless reasonable steps can be taken to eliminate the problem or compensate for such impairment.

b. Final SO<sub>2</sub> Limits. The final long-term and short-term SO<sub>2</sub> limits for the Billings FCCU shall be established by one of two methods, designated as “Option A” and “Option B” below.

(1) Option A. Under Option A, the final long-term and short-term SO<sub>2</sub> limits for the Billings FCCU shall be set pursuant to Subparagraph 30.i based on the results achieved during the demonstration period in Step 2 of the SO<sub>2</sub> Reducing Catalyst Additive protocol. ExxonMobil shall comply with any long-term and short-term Final SO<sub>2</sub> Limits set under Subparagraph 30.i according to the schedule prescribed by Subparagraph 30.i.

(2) Option B. Under Option B, ExxonMobil may, at any time up to and including its proposing emission limits under Subparagraph 30.h, accept and agree to comply immediately with concentration-based SO<sub>2</sub> emission limits of 25 ppmvd on a 365-day rolling average and 50 ppmvd on a 7-day rolling average basis, both at 0% oxygen, for the Billings FCCU. In such circumstances, ExxonMobil shall be absolved of any remaining obligations for the Billings FCCU under Paragraph 30 of this Consent Decree.

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30. **Particular Requirements for the Billings FCCU: Conversion to Full Burn Operation and Two-Step SO<sub>2</sub> Reducing Catalyst Additive Program.** Unless and until ExxonMobil selects Option B under Subparagraph 29.b.(2), ExxonMobil shall implement an SO<sub>2</sub> emissions control program for the Billings FCCU as specified by this Paragraph. The program shall include conversion of the Billings FCCU to Full Burn Operation and implementation of a special two-step protocol using SO<sub>2</sub> Reducing Catalyst Additives, as described below.

a. Conversion of Billings FCCU to Full Burn Operation. By no later than 30 days after the Entry Date, ExxonMobil shall convert the Billings FCCU to Full Burn Operation.

b. SO<sub>2</sub> Baseline Data for the Billings FCCU. By no later than 210 days after the Entry Date, ExxonMobil shall submit to EPA and the Applicable Co-Plaintiff a report on the baseline period beginning 60 days after the Entry Date and ending 180 days after the Entry Date. During that baseline period, the FCCU shall be operated in Full Burn Operation mode, without use of SO<sub>2</sub> Reducing Catalyst Additives. The Baseline Data Report shall include all relevant SO<sub>2</sub> and O<sub>2</sub> CEMS data and all other data set forth in Appendix H.

c. Identification and Selection of SO<sub>2</sub> Reducing Catalyst Additives for Trial Use and Trial Procedures. By the following dates, ExxonMobil shall select and submit for EPA approval a written plan for use of at least three commercially available SO<sub>2</sub> Reducing Catalyst Additives that ExxonMobil proposes to use for short-term trials at the Billings FCCU.

No later than 255 Days after the Entry Date	for the Step 1 trials of current-generation SO <sub>2</sub> Reducing Catalyst Additives
No later than January 15, 2010	for the Step 2 trials of future-generation SO <sub>2</sub> Reducing Catalyst Additives

In the plan for each set of short-term trials, ExxonMobil shall describe, in detail, the trial procedures to be used, including but not limited to: (i) the amount of additive to be baseloaded into the regenerator; (ii) the method of additive loading; and (iii) the expected timing and duration of the trial. Each such plan shall also propose use of at least three specific SO<sub>2</sub> Reducing Catalyst Additives that are likely to perform the best at reducing SO<sub>2</sub> emissions in the FCCU. EPA will base its approval or disapproval of the SO<sub>2</sub> Reducing Catalyst Additives on its

assessment of the performance of the proposed Additives in other FCCUs and the similarity of those FCCUs to ExxonMobil's Billings FCCU, with the objective of testing SO<sub>2</sub> Reducing Catalyst Additives likely to have the best performance in reducing SO<sub>2</sub> emissions. If EPA objects to one or more of the proposed SO<sub>2</sub> Reducing Catalyst Additives, or if EPA objects to any other aspect of ExxonMobil's plan, then EPA will explain the basis of its objections in writing. In the event that ExxonMobil submits less than three approvable Additives, EPA shall identify and by that identification approve the use of other SO<sub>2</sub> Reducing Catalyst Additives by ExxonMobil.

d. Performance of the Short-Term Trials. In each Step of the protocol, ExxonMobil shall perform a set of short-term trials in accordance with the plan approved by EPA under Subparagraph 30.c. ExxonMobil shall commence and complete the short-term trials in accordance with the following schedule:

For the Step 1 trials of current-generation SO<sub>2</sub> Reducing Catalyst Additives:

Commencement Date	No later than 300 days after the Entry Date
Completion Date	No later than 480 days after the Entry Date

For the Step 2 trials of future-generation SO<sub>2</sub> Reducing Catalyst Additives:

Commencement Date	No later than March 1, 2010
Completion Date	No later than October 1, 2010

e. Reports on the Short-Term Trials. For each Step of the protocol, ExxonMobil shall submit a written report to EPA describing the performance of each SO<sub>2</sub> Reducing Catalyst Additive that was tested in the short-term trials.

(1) In each Trials Report, ExxonMobil shall summarize the results of the trials and shall provide all relevant SO<sub>2</sub> and O<sub>2</sub> CEMS data and all other data set forth in Appendix H. Each Trials Report shall also summarize any safety problems or impairments of unit feed rate, conversion, feed slate, or yield selectivity observed in the

trials, and all steps that were taken to attempt to eliminate the problems or compensate for such impairments.

(2) In each Trials Report, ExxonMobil shall identify the Additive that achieved the lowest SO<sub>2</sub> concentration, corrected to 0% O<sub>2</sub>, when averaged over the entire trial period and the additive that reduced emissions the most from a predicted uncontrolled baseline during the trials (the “Best-Performing Additive”). If EPA determines that another Additive tested in the trials was the Best-Performing Additive in the trials, then EPA, after consultation with the Applicable Co-Plaintiff, will so notify ExxonMobil and ExxonMobil shall treat that Additive as the Best-Performing Additive and use it at the specified addition rate in the Step 1 Interim Reduction Period (under Subparagraph 30.f) or the Step 2 Demonstration (under Subparagraph 30.g).

(3) ExxonMobil shall submit the Trials Reports in accordance with the following schedule:

For the Step 1 trials of current-generation SO<sub>2</sub> Reducing Catalyst Additives:

Report Due Date No later than 540 days after the Entry Date

For the Step 2 trials of future-generation SO<sub>2</sub> Reducing Catalyst Additives:

Report Due Date No later than December 1, 2010

f. Step 1 Interim Reduction Period. By no later than 585 days after the Entry Date, ExxonMobil shall commence and continue use of the Best-Performing Additive for Step 1 at the Required Addition Rate, and beginning April 1, 2008 shall commence and continue use of the Best-Performing Additive for Step 1 at the Required Addition Rate plus 2.0%; provided, however, that ExxonMobil shall not be required to operate the FCCU or use the Additive in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate, or yield selectivity, unless reasonable steps can be taken to eliminate the problem or compensate for such



impairment. ExxonMobil shall continue using the Best-Performing Additive at the Required Addition Rate plus 2.0% until commencement of the Step 2 trials under Subparagraph 30.d.

g. Step 2 Demonstration. ExxonMobil shall commence and complete a demonstration of the Best-Performing Additive for Step 2 in accordance with the following schedule:

Commencement Date	No later than January 15, 2011
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Completion Date	No later than January 15, 2012
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During the Step 2 demonstration, ExxonMobil shall use the Best-Performing Additive for Step 2 at the Required Addition Rate and shall operate the FCCU and the CO boiler in a manner that minimizes SO<sub>2</sub> emissions; provided, however, that ExxonMobil shall not be required to operate the FCCU or use the Additive in a manner that creates a safety problem or impairs unit feed rate, conversion, feed slate, or yield selectivity, unless reasonable steps can be taken to eliminate the problem or compensate for such impairment. Even after completion of the demonstration, ExxonMobil shall continue using the Best-Performing Additive at the Required Addition Rate until ExxonMobil begins complying with proposed and final SO<sub>2</sub> emission limits under Subparagraphs 30.h and 30.i.

h. Step 2 Demonstration Report. By no later than March 15, 2012, ExxonMobil will submit a written report to EPA on the results of the Step 2 Demonstration. In the Step 2 Demonstration Report, ExxonMobil shall summarize the results of the demonstration and shall provide all relevant SO<sub>2</sub> and O<sub>2</sub> CEMS data and all other data set forth in Appendix H. In the Step 2 Demonstration Report, ExxonMobil shall propose a long-term (i.e., 365-day rolling average) and short-term (i.e., 7-day rolling average) concentration-based (ppmvd) SO<sub>2</sub> emission limits, both as measured at 0% O<sub>2</sub>, for the Billings FCCU. ExxonMobil shall comply with the

emission limits it proposes for the Billings FCCU beginning immediately upon submission of the Step 2 Demonstration Report. ExxonMobil shall continue to comply with these limits unless and until ExxonMobil is required to comply with the emissions limits set by EPA pursuant to Subparagraph 30.i.

i. Establishment of Final Limits for the Billings FCCU. EPA will use the data collected during the Step 2 Demonstration Period, as well as all other available and relevant information, to establish long-term and short-term final limits for SO<sub>2</sub> emissions from the Billings FCCU. EPA will establish 365-day rolling average and 7-day rolling average concentration-based (ppmvd) SO<sub>2</sub> emission limits, corrected to 0% oxygen, which limits can be met with a reasonable certainty of compliance. Such limits may be the same as the limits proposed by ExxonMobil in accordance with Subparagraph 30.h. ExxonMobil may propose, and EPA may establish, alternative emissions limits to be applicable during alternative operating scenarios. EPA will determine the limits based on: (i) the level of performance during the Step 2 Demonstration Period; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information. EPA will notify ExxonMobil of its determination of the long-term and short-term concentration-based SO<sub>2</sub> emissions limits. ExxonMobil shall immediately (or within thirty (30) days, if EPA's limit is more stringent than the limit proposed by ExxonMobil) operate the 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, ExxonMobil shall use Additive in the manner and amount applicable during the Step 2 Demonstration Period (in lieu of meeting the EPA-established limits).

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72. **Construction and Operation of Upgraded Flare Gas Recovery Systems.**

a. ExxonMobil currently operates existing flare gas recovery systems at the Baton Rouge, Baytown, Beaumont, Billings, and Torrance Refineries.

b. By no later than September 30, 2010~~42 months after the Entry Date~~, ExxonMobil will construct and commence operation of enhancements to its existing flare gas recovery systems at the Beaumont Refinery. Those enhanced flare gas recovery systems will serve certain NSPS Flaring Devices at the Beaumont Refinery, as specified in Appendix G.

c. By no later than September 30, 2010~~48 months after the Entry Date~~, ExxonMobil will construct and commence operation of enhancements to its existing flare gas recovery system at the Billings Refinery. That enhanced flare gas recovery system will serve both the NSPS Flaring Devices at the Billings Refinery that are identified in Appendix G.

d. By no later than the Entry Date, ExxonMobil shall construct and commence operation of flare gas recovery facilities at the Joliet Refinery pursuant to the IEPA Construction Permit for the Joliet Coker Blowdown Recovery Project (Application Number 03060091).

\* \* \* \*

143. **Emission Limits and Standards.** The following Consent Decree requirements shall constitute the emission limits and standards that are required to be incorporated into permits under Paragraphs 141 and 142:

- i. the interim emission limits and standards imposed by Subparagraphs 16.b, 17.b, 29.a, 30.f, 30.g, and 68.b, for so long as each such interim emission limit or standard applies under this Consent Decree; and
- ii. the requirements specified in Subparagraphs 145.a.(1) through 145.a.(9), that shall survive termination of the Consent Decree.

\* \* \* \*

145. **Obligations that Shall Survive Consent Decree Termination.** The requirements imposed by the following provisions of this Consent Decree that shall survive termination of the Consent Decree under Section XVIII:

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

- (1) Subparagraphs 13.b, 14.b, 15.d, 16.c, ~~17.b~~[17.d](#), 18.b, 19.b, and Paragraph 21 in Subsection V.B;
- (2) Subparagraphs 23.b, 24.b, 25.b, 26.b, 27.b, 28.b, 29.b, and Paragraph 32 in Subsection V.C;
- (3) Paragraphs 34 and 35 (if applicable as of the date of termination) in Subsection V.D;
- (4) Paragraphs 39, 40 (if applicable as of the date of termination), and 42 in Subsection V.E;
- (5) Paragraph 43 and 44 in Subsection V.F;
- (6) Paragraphs 52, 53 and 54 in Subsection V.G;
- (7) Subparagraphs 59.a and 59.b and Paragraph 60 in Subsection V.H;
- (8) Paragraphs 63 and 64, Subparagraph 67.e, and Paragraph 69 in Subsection V.I; and
- (9) Paragraphs 70, 71, and 73 in Subsection V.J.

b. Certain Other Requirements

- (1) Subparagraph 65.a (as specified therein) in Subsection V.I;
- (2) Paragraph 79 (as specified therein) and Subparagraph 91.a (as specified therein) in Subsection V.K;
- (3) Paragraph 92 (as specified therein) in Subsection V.L;
- (4) All of this Subsection V.Q; and
- (5) All of Section VI.

c. Agreement Required for Changes to Surviving Requirements. In the event

ExxonMobil should ever seek, after termination of this Consent Decree, to delete or modify an emission limit or standard surviving termination by virtue of Subparagraph 145.a, such emission limit or standard shall not be deleted or modified unless EPA and the Applicable Co-Plaintiff shall have first agreed in writing to the deletion or modification. In the event that ExxonMobil should ever seek to delete or modify any of the certain other requirements surviving termination pursuant to Subparagraph 145.b, such requirement shall not be deleted or modified unless EPA and the Applicable Co-Plaintiff shall have first agreed in writing to the deletion or modification.

\* \* \* \*

161. ExxonMobil shall submit Semi-Annual Reports to EPA and the Applicable Co-Plaintiff that contain the following information:

- i. a progress report on the implementation of the requirements of Section V (Affirmative Relief) at the Covered Refineries;
- ii. a summary of the emissions data, including a separate identification of any exceedance(s) of Consent Decree emission limitations or standards for the Covered Refineries set forth in or established pursuant to Section V of this Consent Decree, for the six (6) month period covered by the report;
- iii. a description of any problems anticipated with respect to meeting the requirements of Section V of this Consent Decree at the Covered Refineries;

- iv. a progress report on the implementation of the requirements of Section VIII (Environmentally Beneficial Projects);
- v. any such additional matters as ExxonMobil believes should be brought to the attention of EPA and the Applicable Co-Plaintiff; and
- vi. additional items required by another Paragraph of this Consent Decree to be submitted with a Semi-Annual Report.

Semi-Annual Reports shall be submitted by August 31 (covering the period from January 1 to June 30) and February 28 (covering the period from July 1 to December 31), provided, however, that the first such Report shall be due on August 31, 2006 (covering the period from December 31, 2005 to June 2006)~~with the first such Report due on the first reporting date after the Entry~~

~~Date~~. The Semi-Annual Report shall be certified by: (i) the person responsible for environmental management and compliance for each of the Covered Refineries; or (ii) a person responsible for overseeing implementation of this Decree for ExxonMobil, as follows:

I certify under penalty of law that this information [related to \_\_\_\_\_ refiner(y)(ies)] 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.

\* \* \* \*

166. For failure to meet any FCCU Interim NOx Limit or Final NOx Limit set forth in or established pursuant to Subparagraphs 13.b, 14.b, 16.b, 16.c, 17.b, 17.d, 18.b, or 19.b, per FCCU: \$750 for each calendar day in a calendar quarter in which the short-term rolling average exceeds the applicable limit; and \$2,500 for each calendar day in a calendar quarter on which the specified 365-day rolling average exceeds the applicable limit.

\* \* \* \*

167. For failure to comply with [any of the Beaumont Interim NOx Control Measures specified by Subparagraph 14.c.](#), any of the Baton Rouge ~~and Beaumont~~ NOx Minimization Studies requirements specified by Paragraph 15, [or any of the Billings NOx Reduction Study requirements specified by Paragraph 17.](#) including submission of required reports, per day:

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

\* \* \* \*

237. **Liability Resolution Regarding the Applicable NSR/PSD Requirements.**

With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of ExxonMobil to the United States and the Applicable Co-Plaintiffs for alleged violations of the Applicable NSR/PSD Requirements resulting from construction or modification from the date of the pre-Lodging construction or modification up to the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
Baton Rouge PCLA 2	SO <sub>2</sub>	January 1, 2006
	NOx	455 days after the Entry Date
Baton Rouge PCLA 3	SO <sub>2</sub>	January 1, 2006
	NOx	455 days after the Entry Date
Baytown FCCU 2	SO <sub>2</sub>	December 31, 2009
	NOx	June 30, 2010
Baytown FCCU 3	SO <sub>2</sub>	Entry Date
	NOx	June 30, 2010
Beaumont FCCU	SO <sub>2</sub>	Entry Date
	NOx	<a href="#">July 1, 2009</a> <del>October 1, 2009</del>

Billings FCCU	SO <sub>2</sub>	Either: (i) March 15, 2012, if the Final SO <sub>2</sub> Limit is established by election of Option A under Subparagraph 29.b.(1); <u>or</u> (ii) the date on which a Final SO <sub>2</sub> Limit is established by election of Option B under Subparagraph 29.b.(2)
	NOx	<u>June 30, 2009</u> <del>December 31, 2008</del>
Joliet FCCU	SO <sub>2</sub>	December 31, 2008
	NOx	December 31, <u>2010</u> <del>2012</del>
Torrance FCCU	SO <sub>2</sub>	Entry Date
	NOx	Entry Date
All Combustion Devices listed in Appendix A	NOx	September 30, 2010
All heaters and boilers other than those in Appendix A	NOx	Entry Date
All heaters and boilers listed in Appendix C	SO <sub>2</sub>	Dates listed in or derived from Appendix C
All heaters and boilers other than those listed in Appendix C	SO <sub>2</sub>	Entry Date
All Other Fuel Gas Combustion Devices listed in Appendix D	SO <sub>2</sub>	Dates listed in or derived from Appendix D

\* \* \* \*

250. **Resolution of Liability Regarding LDAR Requirements.** Entry of this Consent Decree shall resolve the civil liability of ExxonMobil to the United States and the Applicable Co-Plaintiffs for alleged violations of LDAR Requirements at the Covered Refineries that either:

(i) commenced and ceased prior to the Consent Decree Entry Date; or (ii) commenced prior to the Entry Date and continued past the Entry Date, provided that the events giving rise to such post-Entry violations ~~are based on events that~~ are identified in the LDAR Initial Audit Report



required under Subparagraph 120.b and are corrected pursuant to the requirements of Paragraph 121.

\* \* \* \*

266. **Notice.** Unless otherwise provided herein, notifications to or communications between the Parties shall be deemed submitted on the date they are postmarked. Notifications and communications shall be sent by U.S. Mail, postage pre-paid, or private courier service, except for notices under Section XIV (Force Majeure) and Section XV (Retention of Jurisdiction/Dispute Resolution) which shall be sent by overnight mail or by certified or registered mail, return receipt requested. Each report, study, notification or other communication of ExxonMobil shall be submitted as specified in this Consent Decree, with copies to EPA Headquarters, the applicable EPA Region, and the Applicable Co-Plaintiff. If the date on which a notification or other communication is due falls on a Saturday, Sunday or legal holiday, the deadline for such submission shall be enlarged to the next business day. Except as otherwise provided herein, all reports, notifications, certifications, or other communications required under this Consent Decree to be submitted or sent to the United States, EPA, the Applicable Co-Plaintiffs, and/or ExxonMobil 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. 90-5-2-1-07030

**As to EPA:**

**EPA Headquarters:**

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

with a hard copy to

Director, Air Enforcement Division  
Office of Regulatory Enforcement  
c/o Matrix [New World Engineering, Inc.](http://www.matrixnewworld.com) ~~Environmental & Geotechnical Services~~  
[120 Eagle Rock Avenue, Suite 207](http://www.matrixnewworld.com) ~~215 Ridgedale Avenue~~  
[East Hanover, NJ 07936-3159](http://www.matrixnewworld.com) ~~Florham Park, NJ 07932~~

and an electronic copy to  
[jmack@matrixnewworld.com](mailto:jmack@matrixnewworld.com) ~~neichlin@matrixengineering.com~~  
foley.patrick@epa.gov

**EPA Region 5:**

Air and Radiation Division  
U.S. EPA, Region 5  
77 West Jackson Blvd. (AE-17J)  
Chicago, IL 60604  
Attn: Compliance Tracker

and

Office of Regional Counsel  
U.S. EPA, Region 5  
77 West Jackson Blvd. (C-14J)  
Chicago, IL 60604

**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. Environmental Protection Agency, Region 8  
Montana Office  
10 W. 15<sup>th</sup> St., Suite 3200  
Helena, MT 59626

**EPA Region 9:**

Director  
Air Division  
Mail Code AIR-1  
USEPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

**As to the State of Illinois:**

Manager Compliance and Enforcement Section  
Illinois Environmental Protection Agency  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, IL 62794

and

Field Operations Section  
Illinois Environmental Protection Agency  
9511 West Harrison  
Des Plaines, IL 60016

and

Maureen Wozniak  
Assistant Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, IL 62794

**As to the State of Louisiana:**

Peggy M. Hatch  
Administrator, Enforcement Division  
Office of Environmental Compliance  
Louisiana Department of Environmental Quality  
P.O. Box 4312  
Baton Rouge, LA 70821-4312

**As to the State of Montana:**

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

and

Bureau Chief  
Air Resources Management Bureau  
Montana Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59620-0901

**As to ExxonMobil:**

Assistant General Counsel, Litigation  
Law Department  
Exxon Mobil Corporation  
800 Bell Street  
ExxonMobil Building, Room 1503B  
Houston, TX 77022  
Tel. 713-656-3431  
Fax 713-656-7719

and

Downstream Environment and Global Compliance Manager  
Exxon Mobil Corporation  
3225 Gallows Road  
Room 8B 0233  
Fairfax, VA 22037-0001

**With a copy to each applicable refinery as shown below:**

**As to Baton Rouge:**

Refinery Manager  
ExxonMobil Baton Rouge Refinery  
P.O. Box 551  
Baton Rouge, LA 70821-0551

**As to Baytown:**

Refinery Manager  
ExxonMobil Baytown Refinery  
P.O. Box 3950  
Baytown, TX 77522-3950

**As to Beaumont:**

Refinery Manager  
ExxonMobil Beaumont Refinery  
P.O. Box 3311  
Beaumont, TX 77704

**As to Billings:**

Refinery Manager  
ExxonMobil Billings Refinery  
P.O. Box 1163  
Billings, MT 59103

**As to Joliet:**

Refinery Manager  
ExxonMobil Joliet Refinery  
P.O. Box 874  
Joliet, IL 60434

**As to Torrance:**

Refinery Manager  
ExxonMobil Torrance Refinery  
3700 W. 190<sup>th</sup> Street  
Torrance, CA 90509-2929

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.

**Appendix C: NSPS Subpart J Compliance Schedule for Certain Heaters and Boilers**

<u>Refinery</u>	<u>Combustion Device</u>	<u>Compliance Date</u> <sup>1/</sup>
Baton Rouge	PHLA-2-F-1 PHLA-2-F-2 PHLA-2-F-3 PHLA-2-F-4 PHLA-2-F-5 PHLA-2-F-6	December 31, 2008
Baton Rouge	FEED PREP F-30 FEED PREP F-31	December 31, 2008
Baton Rouge	4LEU-E F-1 4LEU-W F-1 4LEU-W F-2	December 31, 2008
Baton Rouge	LELA-E F-1 LELA-S F-4	December 31, 2008
Baton Rouge	KDLA- F-425 KDLA F-451	December 31, 2008
Baytown	LE Unit Heater F-601 LE Unit Heater F-804	Submit AMP six months after Entry Date for NSPS vent stream
Billings	Pipestill Heater F-1	<u>October 31, 2009</u> <del>December 31, 2008</del> <sup>2/</sup>

<sup>1/</sup> As provided by Consent Decree Subparagraph 59.c, where this Appendix C refers to an AMP submittal date rather than a final compliance date, ExxonMobil will submit an AMP application for the listed device by the date specified, and the device shall become an affected facility on the date that ExxonMobil receives EPA's approval of the relevant AMP.

<sup>2/</sup> Between the Entry Date and October 31, 2009~~December 31, 2008~~, Billings Pipestill Heater F-1 shall comply with the emission limitation specified by 40 C.F.R. § 60.104(a)(1) at all times, except when SWS T-23 ammonia overhead gas is combusted in the unit as permitted by pertinent provisions of the Montana State Implementation Plan.

**Appendix D: NSPS Subpart J Compliance Schedule for Certain Other Fuel Gas Combustion Devices**

<u>Refinery</u>	<u>Combustion Device</u>	<u>Compliance Date</u> <sup>4/</sup>
Baton Rouge	MVR Combustor/Flare No. 1	AMP pending
Baton Rouge	MVR Combustor/Flare No. 2	AMP pending
Baytown	MVR Thermal Oxidizer VCU-440	Submit AMP six months after Entry Date
Baytown	MVR Thermal Oxidizer VCU-470	Submit AMP six months after Entry Date
Baytown	Thermal Oxidizer for Loading Racks 22 & 3	Submit AMP six months after Entry Date
Baytown	Caustic Oxidation Unit Incinerator	Submit AMP six months after Entry Date
Beaumont	MVR - John Zink Combustor	Submit AMP six months after Entry Date
Billings	FCCU CO Boiler	Treat or re-route SWS T-23 ammonia overhead gas by no later than <u>October 31, 2009</u> <del>December 31, 2008</del> ; Submit AMP six months after Entry Date for Unsaturated Light Ends Merox Vent stream (DSO Offgas stream)
Joliet	NBRU Thermal Vapor Incinerator - 38B-1	Shutdown, treat, or re-route stream by no later than December 31, 2008
Joliet	SBRU Thermal Vapor Incinerator - 38B-2	Shutdown, treat, or re-route stream by no later than December 31, 2008
Torrance	API Thermal Oxidizer 72F2	Submit AMP six months after Entry Date
Torrance	API Thermal Oxidizer 72F4	Submit AMP six months after Entry Date
Torrance	Resid Loading Rack Incinerator 50J-30	Submit AMP six months after Entry Date
Torrance	Sulfur Pit Vapor Incinerator 28F-11	Shutdown, treat, or re-route stream by July 1, 2009

<sup>4/</sup> As provided by Consent Decree Subparagraph 59.c, where this Appendix D refers to an AMP submittal date rather than a final compliance date, ExxonMobil will submit an AMP application for the listed device by the date specified, and the device shall become an affected facility on the date that ExxonMobil receives EPA's approval of the relevant AMP.



**Appendix G: NSPS Subpart J Compliance Schedule for NSPS Flaring Devices Operated by Covered Refineries**

<u>Refinery</u>	<u>Flaring Device</u>	<u>Compliance Date</u> <sup>6/</sup>	<u>Compliance Method</u>
Baton Rouge	Flare 5	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 8	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 9	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 17	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 19	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 20	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 21	Entry Date	Subparagraph 73.a.ii
Baton Rouge	Flare 23	Entry Date	Subparagraph 73.a.i
Baton Rouge	Flare 24	Entry Date	Subparagraph 73.a.i
Baytown	Flare 3	Entry Date	Subparagraph 73.a.i
Baytown	Flare 4	Submit AMP six months after Entry Date for HF3 vent stream routed to flare downstream from flare gas recovery system  All other streams routed to Flare 4, through flare gas recovery system	Subparagraph 73.a.iii  Subparagraph 73.a.i
Baytown	Flare 5	Entry Date	Subparagraph 73.a.i
Baytown	Flare 6	Entry Date <a href="#">for emergency service</a> <a href="#">All other streams routed to Flare 6, through flare gas recovery system</a>	Subparagraph 73.a.ii <a href="#">Subparagraph 73.a.i</a>
Baytown	Flare 11	Monitor with CEMS as required by 40 C.F.R. § 60.105(a)(3) or (a)(4) by no later than 12 months after Entry Date	Subparagraph 73.a.iv
Baytown	Flare 14	Monitor with CEMS as required by 40 C.F.R. § 60.105(a)(3) or (a)(4) by no later than 12 months after Entry Date	Subparagraph 73.a.iv
Baytown	Flare 15	Entry Date	Subparagraph 73.a.i
Baytown	Flare 16	Entry Date	Subparagraph 73.a.i

<sup>6/</sup> As provided by Consent Decree Subparagraph 73.b, where this Appendix G refers to an AMP submittal date rather than a final compliance date, ExxonMobil will submit an AMP application for the listed device by the date specified, and the device shall become an affected facility on the date that ExxonMobil receives EPA's approval of the relevant AMP.

**Appendix G: NSPS Subpart J Compliance Schedule for NSPS Flaring Devices Operated by Covered Refineries (continued)**

<u>Refinery</u>	<u>Flaring Device</u>	<u>Compliance Date</u>	<u>Compliance Method</u>
Baytown	Flare 17	24 months after Entry Date (so that certain streams can be re-routed by that Compliance Date)	Subparagraph 73.a.i
Baytown	Flare 18	Entry Date	Subparagraph 73.a.i
Baytown	Flare 19	Entry Date for emergency service  Submit AMP six months after entry for intermittent low mass sweet streams	Subparagraph 73.a.ii  Subparagraph 73.a.iii
Baytown	Flare 20	24 months after Entry Date for streams other than HF4 stream (so that certain streams can be re-routed by that Compliance Date)  Submit AMP six months after Entry Date for monitoring HF4 stream <del>when Flare 17 is on turnaround</del>	Subparagraph 73.a.i  Subparagraph 73.a.iii
Baytown	Flare 21	Entry Date	Subparagraph 73.a.i
Baytown	Flare 22	Entry Date for emergency service  Submit AMP six months after Entry Date for monitoring intermittent low mass sweet streams when Flare 19 is on turnaround	Subparagraph 73.a.ii  Subparagraph 73.a.iii
Baytown	Flare 25	Entry Date for emergency service  Submit AMP six months after Entry Date for monitoring intermittent refinery fuel gas streams and natural gas streams	Subparagraph 73.a.ii  Subparagraph 73.a.iii
Baytown	Flare 26	Submit AMP six months after Entry Date for monitoring certain sweet streams and nitrogen-containing streams	Subparagraph 73.a.iii
Baytown	Flare 27	Monitor with CEMS as required by 40 C.F.R. § 60.105(a)(3) or (a)(4) by no later than 12 months after Entry Date	Subparagraph 73.a.iv
Beaumont	High Pressure (HP) Flare	<del>42 months after Entry Date</del> <u>September 30, 2010</u> (so that flare gas recovery system upgrades can be completed by that Compliance Date)	Subparagraph 73.a.i
Beaumont	Low Pressure (LP) Flare	<del>42 months after Entry Date</del> <u>September 30, 2010</u> (so that flare gas recovery system upgrades can be completed by that Compliance Date)	Subparagraph 73.a.i
Beaumont	FCC Flare	<del>42 months after Entry Date</del> <u>September 30, 2010</u> (so that flare gas recovery system upgrades can be completed by that Compliance Date)	Subparagraph 73.a.i

**Appendix G: NSPS Subpart J Compliance Schedule for NSPS Flaring Devices Operated by Covered Refineries (continued)**

<u>Refinery</u>	<u>Flaring Device</u>	<u>Compliance Date</u>	<u>Compliance Method</u>
Beaumont	CHD 1 Flare	<u>September 30, 2010</u> <del>42 months after Entry Date</del>	Subparagraph 73.a.i, 73.a.ii, or 73.a.iii
Beaumont	CHD 2 Flare	<u>September 30, 2010</u> <del>42 months after Entry Date</del>	Subparagraph 73.a.i, 73.a.ii, or 73.a.iii
Beaumont	Coker Flare <sup>7/</sup>	<u>September 30, 2010</u> <del>42 months after Entry Date</del>	Subparagraph 73.a.i, 73.a.ii, or 73.a.iii
Billings	Main Flare	<u>September 30, 2010</u> <del>48 months after Entry Date</del> (so that flare gas recovery system upgrades <u>and other improvements</u> can be completed by that Compliance Date)	Subparagraph 73.a.iii
Billings	Turnaround Flare	<u>September 30, 2010</u> <del>48 months after Entry Date</del> (so that flare gas recovery system upgrades <u>and other improvements</u> can be completed by that Compliance Date)	Subparagraph 73.a.iii
Torrance	Flare 55F-1	Submit AMP six months after Entry Date	Subparagraph 73.a.iii
Torrance	Flare 65F-3	Entry Date	Subparagraph 73.a.i
Torrance	Flare 65F-4	Entry Date	Subparagraph 73.a.i
Torrance	Enclosed Ground Flare 65F-8 <sup>8/</sup>	Entry Date	Subparagraph 73.a.i

<sup>7/</sup> With respect to the Beaumont Refinery's CHD 1 Flare, CHD 2 Flare, and Coker Flare, by no later than September 30, 2010~~42 months after the Entry Date~~, ExxonMobil shall either: (i) complete flare gas recovery system upgrades to bring the particular flare into compliance with Subparagraph 73.a.i; or (ii) re-route streams as required to bring the particular flare into compliance with Subparagraph 73.a.ii or 73.a.iii. In the first Semi-Annual Report that is due under Section IX after September 30, 2010~~that 42 month period~~, ExxonMobil shall identify and certify compliance with a specific compliance method (i.e., either Subparagraph 73.a.i, 73.a.ii, or 73.a.iii ) for each of those three Beaumont Refinery flares.

<sup>8/</sup> Enclosed Ground Flare 65F-8 is an enclosed combustion device that: (i) is not subject to the velocity test requirement referenced in Subparagraph .b.(2) of this Consent Decree; and (ii) is subject to the requirements imposed by SCAQMD Rule 1118 and 40 C.F.R. §§ 60.482-10 and 60.486(d).

**Appendix G: NSPS Subpart J Compliance Schedule for NSPS Flaring Devices Operated by Covered Refineries (continued)**

Identification of Particular Low Volume/Low Pressure Streams to be Routinely Combusted in Certain Baytown Refinery Flaring Devices

1. Low Volume/Low Pressure Streams to be Routinely Combusted in Baytown Flare 11 and/or Baytown Flare 14

a. Hydrocracker Unit 1 (HCU-1)

- S-702 (C-708 suction knock out drum) drain
- D-713 (C-708 1st stage discharge knock-out drum) drain
- D-714 (C-708 2nd stage discharge knock-out drum) drain
- D-770 (C-770 1st stage suction knock-out drum) drain
- D-771 (C-770 2nd stage suction knock-out drum) drain
- D-772 (C-770 3rd stage suction knock-out drum) drain
- D-780 (C-780 1st stage suction knock-out drum) drain
- D-781 (C-780 2nd stage suction knock-out drum) drain
- D-782 (C-780 3rd stage suction knock-out drum) drain D-780
- Low-point piping seal pot drains from C-770 & C-780
- D-773 (C-770 filter knock-out drum) drain
- D-783 (C-780 filter knock-out drum) drain
- D-771, D-772, D-781, D-782 (knock-out liquid) vents
- C-780 suction drain
- C-770 suction drain
- S870 hydrogen comp. coalescer drain
- D-901 (water drain)
- T-810 (sample point vents)
- R-701 (sample point vent)
- D-717A (C-701 sour seal oil drain)
- D-717B (C-701 sour seal oil drain)
- S-704C (C-708 peco filter)
- D-703 (sour water sample)
- D-715 (skim line)
- D-905 (blend gas knock out)
- D-906 (blowdown header low point drain)

b. FCCU 3

- C-302 (FCCU 3 wet gas compressor) seal oil liquid collection pot drain
- C-303 (FCCU 3 wet gas compressor) seal oil liquid collection pot drain
- C-301 (FCCU 3 wet gas compressor) seal oil filtration system vent
- D-504 C (boiler pilot gas knock out)
- D-303 (slop drum vent)
- D-302 (sample point vent)
- Dopak sample points
- D-30A F-103 (fuel gas knock out)

- [D-406 F-105 \(fuel gas knock out\)](#)
  - [D-1502 A, B, C \(boiler fuel gas knock outs\)](#)
- c. Hydrofining Unit 9 (HU-9)
- D-390 (DCU flare knock-out drum) overhead vent
  - ~~• C-361 / 362 (hydrogen recycle and make up compressors) buffer gas (N2) vent and drains off compressor lube pots [through D-390]~~
  - ~~• RGB / LBG fuel gas knock-out drum liquid drain [through D-390]~~
- d. [Equipment leaks and purges from components such as pumps, compressors, valves, etc.](#)
2. Low Volume/Low Pressure Streams to be Routinely Combusted in Baytown Flare 27
- a. DCU
- D-617 (residual flow from DCU flare knock-out drum)
  - D-612 vent (DCU blowdown settling drum)
  - 2 - C-601 suction lines condensable drains (during winter months)
- b. [PS-3/7](#)
- [D-421 \(hydrocarbon containment drum\)](#)
  - [D-422 \(hydrocarbon containment drum\)](#)
- c. [Equipment leaks and purges from components such as pumps, compressors, valves, etc](#)

If ExxonMobil identifies any other low volume/low pressure stream that is routinely combusted in Baytown Flare 11, Flare 14, or Flare 27, EPA may approve addition of that stream to this Appendix through a non-material modification under Consent Decree Paragraph 269, so long as the other conditions of Subparagraph 73.a.iv are met.

**SIGNATORIES**

Each of the undersigned representatives certifies that he or she is fully authorized to enter into the Third Decree Amendment on behalf of such Parties, and to execute and to bind such Parties to this Third Decree Amendment. This Third Decree Amendment may be signed in counterparts.

Dated and entered this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_

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