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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”), has simultaneously filed a Complaint and lodged this Consent Decree against defendant Alon USA, LP (“Alon”) for alleged environmental violations at its petroleum refinery in Big Spring, Texas.

WHEREAS, the United States alleges on information and belief that Alon has violated and/or continues to violate one or more of 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” found 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), 40 C.F.R. Part 51, Appendix S, and 40 C.F.R. § 52.24 (the “NSR Regulations”) (collectively the “PSD/NSR Regulations”) for heaters and boilers and fluid catalytic cracking unit 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, J and Ja (“Refinery NSPS Regulations”), promulgated under Section 111 of the Act, 42 U.S.C. § 7411, for sulfur recovery plants, fuel gas combustion devices, flares, 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 GGG,

GGGa, 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”).

WHEREAS, the United States also alleges with respect to the Big Spring Refinery that, upon information and belief, Alon has been and/or continues to be in violation of the Texas State Implementation Plan (“SIP”), approved by EPA pursuant to Section 110 of the Act, 42 U.S.C. § 7410, to the extent that such plan implements, adopts, or incorporates the above-described federal requirements.

WHEREAS, with respect to the provisions of Subsection V.J (“Requirements for Control of Acid Gas Flaring and Tail Gas Incidents”) of this Consent Decree, EPA maintains that “[i]t is the intent of the proposed standard [subsequently codified in part at 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, Office of Air Quality Planning and Standards, U.S. EPA, Background Information for Proposed New Source Performance Standards: Asphalt Concrete Plants, Petroleum Refineries, Storage Vessels, Secondary Lead Smelters and Refineries, Brass or Bronze Ingot Production Plants, Iron and Steel Plants, Sewage Treatments Plants (Vol. 1: Main Text), 28 (1973).

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

WHEREAS, EPA recognizes that “Malfunctions,” as defined in Section IV(Definitions) of this Consent Decree and 40 C.F.R. § 60.2, of “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, Alon denies that it has violated and/or continues to violate the foregoing federal statutory and regulatory provisions, or the foregoing SIP provisions incorporating and implementing the federal requirements, and maintains that it has been and remains in compliance with all applicable statutes, regulations, and permits and is not liable for civil penalties and injunctive relief.

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

WHEREAS, Alon consents to the simultaneous filing of the Complaint and lodging of this Consent Decree to accomplish Alon’s objective of cooperatively reconciling the goals of the United States and Alon under the Clean Air Act, and Alon therefore agrees to undertake the installation of pollution control equipment and the enhancements to its air pollution management practices at its Refinery to reduce air emissions through participation in the Global Settlement Strategy.

WHEREAS, with this settlement, each of the facilities currently engaged in petroleum refining in the U.S. that are owned or operated by Alon USA, LP, or any other subsidiary of

Alon USA Energy, Inc., Alon USA, LP's corporate parent, are now covered by Consent Decrees pursuant to the Global Settlement Strategy.

WHEREAS, Alon estimates that, when the affirmative relief identified in Sections V (Affirmative Relief) of this Consent Decree is fully implemented, annual emissions from the Big Spring Refinery will be reduced by the following amounts: 1) nitrogen oxide by approximately 477 tons; 2) sulfur dioxide by approximately 2455 tons, and will also result in reductions of volatile organic compounds ("VOCs"), carbon monoxide ("CO") and particulate matter ("PM").

WHEREAS, Alon waives any applicable federal or state requirements of statutory notice of the alleged violations.

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

WHEREAS, the Parties recognize, and the Court by entering the Consent Decree finds, that the Consent Decree has been negotiated at arm's length and in good faith and that the Consent Decree 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 to the Consent Decree, it is hereby ORDERED, ADJUDGED and DECREED as follows:

#### **I. JURISDICTION AND VENUE**

1. This Court has jurisdiction over the subject matter of this action and over the Parties pursuant to 28 U.S.C. §§ 1331, 1345, and 1355 and 1367(a). In addition, this Court has jurisdiction over the subject matter of this action pursuant to Sections 113(b) and 167 of the Clean Air Act, 42 U.S.C. §§ 7413(b) and 7477. The Complaint states a claim upon which relief



may be granted for injunctive relief and civil penalties against Alon under the Clean Air Act. Authority to bring this suit is vested in the United States Department of Justice by 28 U.S.C. §§ 516 and 519, and Section 305 of the Act, 42 U.S.C. § 7605.

2. Venue is proper in the Northern District of Texas pursuant to Section 113(b) of the Clean Air Act, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c), and 1395(a). Alon consents to the personal jurisdiction of this Court and waives any objections to venue in this District.

3. Notice of the commencement of this action has been given to the State of Texas under Section 113(a)(1) and 113(b) of the Clean Air Act, 42 U.S.C. §§ 7413(a)(1) and (b).

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

4. The provisions of the Consent Decree shall apply to Alon and the Big Spring Refinery as described herein. The provisions of the Consent Decree shall be binding upon the United States, Alon, and Alon's successors, assigns, and other entities or persons bound by law.

5. Alon agrees not to contest the validity of the Consent Decree in any subsequent proceeding to implement or enforce its terms.

6. Alon shall give written notice of the Consent Decree to any successors in interest prior to the transfer of ownership or operation of any portion of the Big Spring Refinery and shall provide a copy of the Consent Decree to any successor in interest. Alon shall notify the United States, in accordance with the notice provisions set forth in Paragraph 248 (Notice), of any successor in interest at least thirty (30) days prior to any such transfer. No transfer of ownership will relieve Alon of its obligations under this Consent Decree, except in accordance with Paragraphs 7-11.

7. Alon shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest (exclusive of any non-controlling, non-operational shareholder interest) in the Big Spring Refinery upon the transferee's written agreement to execute a modification to the Consent Decree that shall make the terms and conditions of the Consent Decree applicable to the transferee.

8. As soon as possible prior to the transfer, (a) Alon shall notify the United States of the proposed transfer and of the specific Consent Decree provisions that Alon proposes the transferee assume; (b) Alon shall certify that the transferee is contractually bound to assume the obligations and liabilities of this Consent Decree; and (c) the transferee shall submit to the United States a certification that the transferee has the financial and technical ability to assume the obligations and liabilities of this Consent Decree and a certification that the transferee is contractually bound to assume the obligations and liabilities of this Consent Decree.

9. By no later than sixty (60) days after the submission to the United States of the notice and certification required by the previous Paragraph 8: (a) the United States shall notify Alon that the United States does not agree to modify the Consent Decree to make the transferee responsible for complying with the terms and conditions of the Consent Decree or (b) the United States, Alon, and the transferee shall file with the Court a joint motion requesting the Court to approve a modification substituting the transferee for Alon as the Defendant responsible for complying with the terms and conditions of the Consent Decree.

10. If Alon does not secure the agreement of the United States to a joint motion within the sixty-day (60) period, then Alon and the transferee may file, without the agreement of the United States, a motion requesting the Court to approve a modification substituting the transferee for Alon as the Defendant responsible for complying with the terms and conditions of

the Consent Decree. The United States may file an opposition to the motion. Such a motion may be granted unless Alon and the transferee fail to show that the transferee has the financial and technical ability to assume the obligation and liabilities of the Consent Decree.

11. Except as provided in Paragraphs 7-10, above, Alon shall be responsible for ensuring that performance of the work contemplated under this Consent Decree is undertaken in accordance with the deadlines and requirements contained in this Consent Decree.

12. No later than the execution of any contract with a consulting or contracting firm that is retained to perform work required by this Consent Decree, Alon shall provide a copy of this Consent Decree to the consulting or contracting firm that is retained. No later than thirty (30) days after the Date of Lodging of the Consent Decree, Alon also shall provide a copy of this Consent Decree to each consulting or contracting firm that Alon already has retained to perform the work required by 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 of this Consent Decree.

### **III. OBJECTIVES**

13. It is the purpose of the Parties to this Consent Decree to further the objectives of the Clean Air Act.

### **IV. DEFINITIONS**

14. 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 this Consent Decree shall be defined, for purposes of the Consent Decree and the reports and documents submitted pursuant hereto, as follows:

a. “Acid Gas” or “AG” shall mean any gas that contains hydrogen sulfide and is generated by the Refinery by the regeneration of an amine scrubber solution, but does not mean Tail Gas.

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

c. “Acid Gas Flaring Device” or “AG Flaring Device” shall mean any device used to combust Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid.

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 Acid Gas Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping twenty-four (24) hour periods are measured from the initial commencement of Acid Gas Flaring within the Acid Gas Flaring Incident.

e. “Alon” shall mean Alon USA LP, and its successors and assigns.

f. “Big Spring Refinery” shall mean the petroleum refinery owned by Alon and located at the intersection of I-20 and Refinery Road, Big Spring, Texas, with a refining capacity of 73,000 barrels per day.

g. “CD Emissions Reductions” shall mean any emissions reductions that result from any projects conducted or controls utilized taken to comply with this Consent Decree.

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

i. “Low-Emissions Packing” or “Low-E Packing” shall mean either (i) or (ii):

(i) A valve packing product, independent of any specific valve, for which the manufacturer has issued a written warranty that the packing will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the product; provided however, that no packing product shall qualify as “Low-E” by reason of written warranty unless the packing first was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty;

(ii) A valve packing product, independent of any specific valve, that has been tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions, and that, during the test, at no time leaked at greater than 500 ppm, and on average, leaked at less than 100 ppm.

j. “Low-Emissions Valve” or “Low-E Valve” shall mean either of the following:

(i) a valve (including its specific packing assembly) for which the manufacturer has issued a written warranty that it will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the valve; provided however, that no valve shall qualify as “Low-E” by reason of written warranty unless the valve (including its specific packing assembly) either:

(a) first was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty; or

(b) is as an extension of another valve that qualified as “Low-E” under Subparagraph 14.j(i)(a); or

(ii) a valve (including its specific packing assembly) that:

(a) has been tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and that, during the test, at no time leaked at greater than 500 ppm, and on Average, leaked at less than 100 ppm; or

(b) is an Extension of another valve that qualified as “Low-E” under Subparagraph 14.j(ii)(a).

k. “CO” shall mean carbon monoxide.

l. “Consent Decree” or “Decree” shall mean this Consent Decree, including any and all appendices attached to the Consent Decree, including Appendices A through D.

m. “Covered Heaters and Boilers” shall mean the heaters and boilers that are listed in Appendix A, which includes all heaters and boilers at the Big Spring Refinery for which heat input capacity is greater than 40 mmBTU/hr (HHV).

n. “Covered Equipment” shall mean all pumps and valves, in light liquid, heavy liquid, or gas/vapor service in all Covered Process Units.

o. “Covered Process Units” shall mean any process unit that is, or under the terms of this Consent Decree becomes, subject to the equipment leak provisions of 40 C.F.R. Part 60, Subpart GGGa.

p. "Date of Lodging" or "Date of Lodging of the Consent Decree" shall mean the date the Consent Decree is lodged with the Clerk of the Court for the United States District Court for the Northern District of Texas.

q. "Day" or "Days" (whether or not capitalized) shall mean a calendar day or days, unless "business days" are expressly specified. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday or Federal Holiday, the period shall run until the close of business on the next working day.

r. "Entry Date" shall mean the date the Consent Decree is entered as a final judgment by the United States District Court for the Northern District of Texas.

s. "FCCU" shall mean a fluidized catalytic cracking unit, its regenerator, and its associated CO boiler.

t. "Flaring Device" shall mean an Acid Gas Flaring Device and/or an HC Flaring Device.

u. "Flaring Incident" shall mean an Acid Gas Flaring Incident, a Tail Gas Incident, and/or an HC Flaring Incident.

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

w. "HHV" shall mean the quantity of heat liberated by the complete combustion of a unit volume or weight of a fuel assuming that the produced water vapor is completely condensed and the heat is recovered; HHV is also known as gross calorific value.

x. "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.

y. “Hydrocarbon Flaring Device” or “HC Flaring Device” shall mean any device used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas.

z. “Hydrocarbon Flaring Incident” or “HC Flaring Incident” shall mean the continuous or intermittent combustion of refinery-generated gases, except for Acid Gas or Sour Water Stripper Gas or Tail Gas, that results in the emission of sulfur dioxide equal to, or greater than five hundred (500) pounds in a twenty-four (24) hour period; provided, however, that if five hundred (500) pounds or more of sulfur dioxide have been emitted in any 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. When HC Flaring occurs within a twenty-four hour period at more than one Flaring Device at the refinery, the quantities of sulfur dioxide emitted from each Flaring Device shall be added together for purposes of determining whether there is one HC Flaring Incident unless the Root Causes of the HC Flaring at the various Flaring Devices are not related to each other.

aa. “Interest” shall mean interest at the rate specified in 28 U.S.C. § 1961.

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



- cc. "Natural Gas Curtailment" shall mean a restriction imposed by a natural gas supplier or a public utility, which limits Alon's ability to obtain natural gas.
- dd. "NO<sub>x</sub>" shall mean nitrogen oxides.
- ee. "Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral.
- ff. "Parties" shall mean the United States and Alon.
- gg. "PM" shall mean particulate matter.
- hh. "ppmvd" shall mean parts per million by volume (dry basis).
- ii. "Root Cause" shall mean the primary cause(s) of Acid Gas Flaring Incident(s), Hydrocarbon Flaring Incident(s), or Tail Gas Incident(s) as determined through a process of investigation.
- jj. "Screening Value" shall mean the highest emission level that is recorded at each piece of Covered Equipment as it is monitored in compliance with Method 21.
- kk. "Selective Catalytic Reduction" or "SCR" shall mean an air pollution control device consisting of ammonia injection and a catalyst bed to selectively catalyze the reduction of NO<sub>x</sub> with ammonia to nitrogen and water.
- ll. "Shutdown" shall mean the cessation of operation of equipment for any purpose.
- mm. "SO<sub>2</sub>" shall mean sulfur dioxide.
- nn. "SO<sub>2</sub> Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce SO<sub>2</sub> emissions by reduction and adsorption.
- oo. "Sour Water Stripper Gas" shall mean the gas produced by the process of stripping or scrubbing refinery sour water.
- pp. "Startup" shall mean the setting in operation of equipment for any purpose.

qq. “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.

rr. “Tail Gas” shall mean exhaust gas from a Claus train of an SRP and/or from a Tail Gas Unit section of an SRP.

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

tt. “Tail Gas Incident” shall mean 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. When a Tail Gas Incident occurs within a twenty-four hour period at more than one Flaring Device at the refinery (the quantities of sulfur dioxide emitted from each Flaring Device shall be added together for purposes of determining whether there is one Tail Gas Incident unless the Root Causes of the Tail Gas Incident at the various Flaring Devices are not related to each other); or

(ii) combusted in a thermal incinerator and results in emissions of 500 pounds or more of SO<sub>2</sub> in any 24-hour period. Only those time periods which are in excess of an SO<sub>2</sub> concentration of 250 ppm (rolling 12-hour average) shall be used to determine the amount of excess SO<sub>2</sub> emissions from the incinerator. When a Tail Gas Incident occurs within a twenty-four hour period at more than one thermal incinerator at the refinery, the quantities of sulfur dioxide emitted from each thermal incinerator shall be added together for purposes of determining whether there is one Tail Gas Incident unless the Root Causes of the Tail Gas Incident at the various thermal incinerators are not related to each other. Alon shall use good engineering judgment and other monitoring data to estimate

emissions during periods in which the SO<sub>2</sub> CEMS has exceeded the range of the instrument or is out of service.

uu. “Torch Oil” shall mean the FCCU feedstock or light cycle oil that is combusted in the FCCU regenerator.

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

ww. “Waste Management Unit” means a piece of equipment, structure, or transport mechanism used in handling, storage, treatment, or disposal of waste. Examples of a waste management unit include a tank, surface impoundment, container, oil-water separator, individual drain system, steam stripping unit, thin-film evaporation unit, waste incinerator, and landfill.

## V. AFFIRMATIVE RELIEF

### A. NO<sub>x</sub> EMISSIONS REDUCTIONS FROM THE FCCU AT THE BIG SPRING REFINERY

Program Summary: Alon shall implement a program to reduce NO<sub>x</sub> emissions from the Big Spring Refinery FCCU. Alon shall comply with NO<sub>x</sub> emission limits determined under this Subsection V.A. and demonstrate compliance with such limits through the use of CEMS.

15. NO<sub>x</sub> Emissions Limits. By no later than December 31, 2018, Alon shall comply with a final NO<sub>x</sub> emissions limit from the FCCU at the Big Spring Refinery of 20 ppmvd NO<sub>x</sub> on a 365-day rolling average basis and 40 ppmvd NO<sub>x</sub> on a 7-day rolling average basis, each at 0% O<sub>2</sub>. For purposes of clarity, the first 7-day compliance date shall be January 6, 2019, and the first 365-day compliance date shall be December 30, 2019. As an interim limit, Alon shall continue to comply with the NO<sub>x</sub> limits applicable to the FCCU in Permit Number 49154: 200 ppmv

averaged over a one-hour period (Special Condition No. 4), and emission rates of 464.21 tons per year and 105.98 lbs/hr (Maximum Allowable Emission Rates).

16. Startup, Shutdown, and Malfunction. NO<sub>x</sub> emissions (a) caused by or attributable to the Startup, Shutdown, or Malfunction of the Big Spring Refinery FCCU and/or (b) during periods of Malfunction of the Big Spring Refinery FCCU's NO<sub>x</sub> control system shall not be used in determining compliance with the 7-day average NO<sub>x</sub> limits established pursuant to Paragraph 15, provided that during such periods Alon implements good air pollution control practices to minimize NO<sub>x</sub> emissions. Nothing in this Paragraph shall be construed to relieve Alon 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.

17. Demonstrating Compliance with FCCU NO<sub>x</sub> Emission Limits. By no later than December 31, 2018, Alon shall continue to use NO<sub>x</sub> and O<sub>2</sub> CEMS at the Big Spring Refinery FCCU to demonstrate compliance with the NO<sub>x</sub> emission limits established pursuant to this Subsection V.A. of this Consent Decree. Upon demand, Alon shall make emissions monitoring data available to EPA. Alon shall install, certify, calibrate maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

**B. SO<sub>2</sub> EMISSIONS REDUCTIONS FROM THE FCCU AT THE BIG SPRING REFINERY**

Program Summary: Alon shall comply with the SO<sub>2</sub> emissions limits for the Big Spring Refinery FCCU specified below. Alon shall demonstrate compliance with the emission limits through the use of CEMS, as specified by this Subsection V.B.

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18. Interim SO<sub>2</sub> Emission Limits. By no later than the Date of Entry, Alon shall add SO<sub>2</sub> Reducing Catalyst Additive at a 7.5% daily average fresh catalyst addition rate until the date that Final SO<sub>2</sub> emission limits apply pursuant to Paragraph 19.

19. Final SO<sub>2</sub> Emission Limits. By no later than January 1, 2022, Alon shall comply with final SO<sub>2</sub> Emission Limits of 25 ppmvd at 0% O<sub>2</sub> on a 365-day rolling-average basis and 50 ppmvd at 0% O<sub>2</sub> on a 7-day rolling-average basis, using one of the control technology options as provided in this Paragraph. By no later than December 31, 2018, Alon shall notify EPA which of the control options Alon has selected to meet the final SO<sub>2</sub> emission limits. For purposes of clarity, the first 7-day compliance date shall be January 7, 2022, and the first 365-day compliance date shall be December 31, 2022.

a. Installation and Operation of Wet Gas Scrubber. If Alon selects a Wet Gas Scrubber as its control technology to comply with the final SO<sub>2</sub> emission limits under this Paragraph, then by no later than December 31, 2021, Alon shall complete installation and begin operation of a Wet Gas Scrubber at the Big Spring Refinery FCCU.

b. Installation and Operation of a Hydrotreater with or without SO<sub>2</sub> Reducing Catalyst. If Alon selects a hydrotreater as its control technology (either solely or in conjunction with SO<sub>2</sub> Reducing Catalyst Additives) to comply with the final SO<sub>2</sub> emission limits under this Paragraph, then by no later than six months before the initial startup of the hydrotreater (but in no event later than June 30, 2021), Alon shall submit to EPA for its approval a plan to minimize FCCU SO<sub>2</sub> emissions during hydrotreater outages, including, but not limited to, storage of hydrotreated feed, addition of SO<sub>2</sub> Reducing Catalyst Additive and minimizing FCCU feed sulfur content. Alon shall

comply with the hydrotreater outage plan at all times, including during periods of Startup, Shutdown and Malfunction of the hydrotreater.

c. Use or Installation of Other Technology. If Alon selects a control technology other than a Wet Gas Scrubber, a hydrotreater and/or SO<sub>2</sub> Reducing Catalyst Additives to comply with the final SO<sub>2</sub> emission limits under this Paragraph, then it shall comply with the final SO<sub>2</sub> emission limits by no later than the dates established in this Paragraph.

20. Startup, Shutdown and Malfunction. SO<sub>2</sub> emissions during period of Startup, Shutdown, and Malfunction of the FCCU or control technology shall be determined based on the type of technology selected pursuant to Paragraph 19.

a. Wet Gas Scrubber. If Alon selects a Wet Gas Scrubber as its control technology as provided in Paragraph 19.a, SO<sub>2</sub> emissions during periods of Startup, Shutdown, and Malfunction of the FCCU or the Wet Gas Scrubber shall not be used in determining compliance with the 7-day average SO<sub>2</sub> emission limits set forth in Paragraph 19 above, provided that during such periods Alon implements good air pollution control practices to minimize SO<sub>2</sub> emissions.

b. Hydrotreater and/or SO<sub>2</sub> Reducing Catalyst Additives. If Alon selects a hydrotreater (either solely or in conjunction with SO<sub>2</sub> Reducing Catalyst Additives) as its control technology as provided in Paragraph 19.b, SO<sub>2</sub> emissions during periods of Startup, Shutdown, and Malfunction of the FCCU or hydrotreater outages shall not be used in determining compliance with the 7-day average SO<sub>2</sub> emission limits set forth in Paragraph 19 above, provided that Alon is maintaining and operating the FCCU (including all associated all pollution control equipment) in a manner consistent with

good air pollution control practices for minimizing emissions and in accordance with the EPA-approved hydrotreater outage plan.

c. Other Technology. SO<sub>2</sub> emissions during periods of Startup, Shutdown or Malfunction of the Big Spring FCCU shall not be used in determining compliance with the 7-day average SO<sub>2</sub> emission limits set forth in Paragraph 19 above, provided that during such periods Alon implements good air pollution control practices to minimize SO<sub>2</sub> emissions.

d. Nothing in this Paragraph shall be construed to relieve Alon 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 comply with emissions limits applicable during periods of Startup, Shutdown or Malfunction.

21. Demonstrating Compliance with FCCU SO<sub>2</sub> emission limits for the Big Spring Refinery FCCU. Alon shall continue to use SO<sub>2</sub> and O<sub>2</sub> CEMS at the Big Spring Refinery FCCU to monitor performance and to report compliance with the terms and conditions of this Subsection V.B relating to the SO<sub>2</sub> emissions from the Big Spring Refinery FCCU. Alon shall make emissions monitoring data available to EPA upon request for such data. Alon shall install, certify, calibrate, maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

**C. PARTICULATE MATTER EMISSIONS REDUCTIONS FROM THE FCCU AT THE BIG SPRING REFINERY**

Program Summary: Alon shall comply with emissions limits on PM emissions from the Big Spring Refinery FCCU as specified below. Alon shall demonstrate compliance with the emission limits through the use of PM testing, as specified by this Subsection V.C.

22. NSPS Emission Limits for PM. By no later than the Date of Entry, the NSPS regulations at 40 C.F.R. Part 60, Subparts A and J for PM shall continue to be applicable to the FCCU at the Big Spring Refinery (an emission limit of 1.0 pounds of PM per 1000 pounds of coke burned, on a 3-hour average based on the average of three 1-hour runs).

23. NSR Emission Limit for PM. At any time during the term of the Consent Decree, Alon may accept the following Final PM Limit:

a. Alon shall comply with PM limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis, which shall apply during all periods of operation, except during periods of Startup or Shutdown of the FCCU.

b. During periods of Startup or Shutdown of the FCCU, Alon shall maintain the inlet velocity to the primary internal cyclones of the FCCU catalyst regenerator at or above 20 feet per second.

Acceptance of this Final PM Limit will resolve liability for certain potential NSR/PSD violations for PM emissions from the Big Spring Refinery FCCU pursuant to Paragraph 222 of this Consent Decree, provided that this Final PM Limit is incorporated into a federally-enforceable permit under Section V.N.

24. Startup, Shutdown, and Malfunction. Nothing in this Paragraph shall be construed to relieve Alon of any obligation under any federal, state, or local law, regulation, or permit to report emissions during periods of Startup, Shutdown or Malfunction, comply with emissions limits applicable during periods of Startup, Shutdown or Malfunction, or to document the occurrence and/or cause of a Malfunction.

25. PM Testing for the Big Spring Refinery FCCU.



a. Alon shall follow the test methods specified in 40 C.F.R. § 63.1571(a)(5) (Table 4) to measure PM emissions from the Big Spring Refinery FCCU. Alon shall perform PM tests not less than every two years, with the first test to be conducted by no later than August 1, 2017. If two consecutive PM tests are compliant, Alon shall not be required to perform future PM tests under this Consent Decree. Alon shall submit the results in the next Semi-Annual Report due under Section VIII three (3) months or more after the date of the PM test.

b. If Alon installs a WGS as its control technology to comply with the emission limits in Paragraph 19, then further PM testing is not required under this Consent Decree on and after Alon has completed installation and begun operation of the WGS.

**D. CARBON MONOXIDE EMISSIONS REDUCTIONS FROM THE FCCU AT THE BIG SPRING REFINERY**

Program Summary: Alon shall comply with emissions limits on CO emissions from the Big Spring Refinery FCCU as specified below. Alon shall demonstrate compliance with the emission limits with CEMS, as specified by this Subsection V.D.

26. NSPS Emission Limit for CO. By no later than the Date of Entry, the NSPS regulations at 40 C.F.R. Part 60, Subparts A and J for CO shall continue to be applicable to the FCCU at the Big Spring Refinery (an emission limit of 500 ppmvd CO at 0% O<sub>2</sub> on a 1-hour average basis).

27. NSR Emission Limits for CO.

a. At any time during the term of the Consent Decree, Alon may accept a Final CO Limit for the Big Spring Refinery FCCU of 100 ppmvd on a 365-day rolling-average basis at 0% O<sub>2</sub>, which shall apply during all periods of operation, except during periods of Startup or Shutdown of the FCCU.

b. During periods of Startup or Shutdown of the FCCU, Alon shall maintain the O<sub>2</sub> concentration in the exhaust gas from the FCCU catalyst regenerator at or above 1 volume percent (dry basis).

Acceptance of this Final CO Limit will resolve liability for certain potential NSR/PSD violations for CO emissions from the Big Spring Refinery FCCU pursuant to Paragraph 223 of this Consent Decree, provided that this Final CO Limit is incorporated into a federally-enforceable permit under Section V.N.

28. Startup, Shutdown, and Malfunction. Nothing in this Paragraph shall be construed to relieve Alon of any obligation under any federal, state, or local law, regulation, or permit to report emissions during periods of Startup, Shutdown, or Malfunction, to comply with emissions limits applicable during periods of Startup, Shutdown, or Malfunction, or to document the occurrence and/or cause of a Startup, Shutdown, or Malfunction event.

29. Demonstrating Compliance with CO Emission Limits. By no later than the Entry Date, Alon shall continue to use CO and O<sub>2</sub> CEMS at the Big Spring Refinery FCCU to monitor emissions and to report compliance with the terms and conditions of this Subsection V.D relating to CO emissions from the Big Spring Refinery FCCU. Alon shall make emissions monitoring data available to EPA following an EPA request for such data. Alon shall calibrate, maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

**E. NSPS APPLICABILITY TO THE FCCU CATALYST REGENERATOR AT THE BIG SPRING REFINERY**

30. NSPS Applicability and Compliance. The Big Spring Refinery FCCU catalyst regenerator has been and is an “affected facility” as that term is used in the Standards of Performance for New Stationary Sources (“NSPS”), 40 C.F.R. Part 60, Subparts A and J. On and after the Entry Date, the Big Spring Refinery FCCU catalyst regenerator shall continue to be subject to and shall comply with 40 C.F.R. Part 60, Subparts A and J, with respect to SO<sub>2</sub>, PM, and CO.

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

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

31. Opacity Monitoring at the FCCUs. By no later than the Date of Entry, the Big Spring Refinery will calibrate, maintain, and operate a Continuous Opacity Monitoring System (“COMS”) to monitor opacity at the FCCU. The Big Spring Refinery shall calibrate, maintain and operate the COMS required by this Consent Decree in accordance with 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 Appendix B. If Alon installs a WGS to achieve compliance with the emission limits in Paragraph 19, the Refinery will conduct a performance test within six months of startup of the WGS and submit an alternative monitoring plan (“AMP”) for monitoring opacity at the FCCU,

based on the test results. Alon shall submit a complete application and shall comply with the proposed AMP pending EPA's approval or disapproval of the application. If EPA disapproves a proposed AMP, Alon shall, according to EPA's direction, either monitor in accordance with the applicable monitoring requirements, or submit a revised AMP to EPA for approval within ninety (90) days of receiving notice of EPA's disapproval. Such revised plan may include a revised AMP application, physical or operational changes to the equipment, or additional or different monitoring. If the revised monitoring plan is not approved by EPA, the monitoring in question shall be conducted in accordance with the applicable monitoring requirements.

**F. NO<sub>x</sub> EMISSIONS REDUCTIONS FROM HEATERS AND BOILERS AT THE BIG SPRING REFINERY**

Program Summary: Alon shall implement a program to reduce NO<sub>x</sub> emissions from the heaters and boilers greater than 40 mmBTU/hr (HHV) at the Big Spring Refinery by committing to a final refinery-wide weighted average of concentration emission limits on individual heaters and boilers for NO<sub>x</sub> of 0.040 lb/mmBTU by December 31, 2016.

32. Appendix A to this Consent Decree (the "Initial Inventory") provides an initial list of all heaters and boilers for the Big Spring Refinery for which heat input capacity is greater than 40 mmBTU/hr (HHV).

33. The Initial Inventory identifies previously constructed heaters and boilers at the Big Spring Refinery that comprises the initial list of Covered Heaters and Boilers. The Initial Inventory also provides the following information concerning the Covered Heaters and Boilers:

- a. Alon's designation for each of the Covered Heaters and Boilers;
- b. Identification of the heat input capacity for each of the Covered Heaters and Boilers;
- c. Identification of all applicable NO<sub>x</sub> emission limitations, in pounds per million BTU, for each of the Covered Heaters and Boilers; and

d. Statement of whether a CEMS for NO<sub>x</sub> has been installed on the respective Covered Heater or Boiler.

This information is included in Appendix A (“Initial Inventory – Covered Heaters and Boilers for the Big Spring Refinery”), which reflects Alon’s control plan for the Covered Heaters and Boilers.

34. Reserved.

35. NO<sub>x</sub> Emissions Limit.

a. Reserved.

b. By no later than December 31, 2016, Alon shall install NO<sub>x</sub> control technology on, or otherwise limit NO<sub>x</sub> emissions from, certain Covered Heaters and Boilers such that Alon’s final refinery-wide weighted average for NO<sub>x</sub> emissions from the Covered Heaters and Boilers at the Big Spring Refinery is no greater than 0.040 lbs/mmBTU.

36. Reserved.

37. Alon shall thereafter include in the Semi-Annual Reports required by Section VIII (in Paragraphs 159.g and 160.a) the results of emissions tests required by Paragraph 41, and annual average CEMS data required by Paragraph 42 (reported in ppmvd at 3% O<sub>2</sub>, lbs/mmBTU, and in tons of NO<sub>x</sub> per year). Appendix A (Initial Inventory) and reports required by this Paragraph shall be for informational purposes only and may contain estimates. They shall not be used to develop permit requirements or other operating restrictions.

38. For the purposes of Paragraph 35, in the event that, on or before December 31, 2016, Alon permanently ceases operation of any Covered Heaters or Boilers, then Alon may include each such shutdown unit in its demonstration of compliance with Paragraph 35 if Alon

notifies the appropriate permitting authority that such unit is no longer operational and requests the withdrawal or invalidation of any permit or permit provisions authorizing operation of such unit. For purposes of Alon's demonstration of compliance with Paragraph 35, the emissions of any such shutdown unit shall be equal to 0.000 lbs/mmBTU NO<sub>x</sub>, and the heat input attributed to any shutdown Covered Heater or Boiler shall be its Heat Input Capacity prior to shutdown.

39. Compliance Demonstration. By no later than 30 days after Date of Entry, Alon shall submit to EPA a report demonstrating compliance with Paragraph 35.b. The compliance report submitted pursuant to this paragraph shall include the following information for the Refinery, as applicable to Alon's compliance demonstration:

a. The NO<sub>x</sub> emission limit for each Covered Heater or Boiler which is the least of the following:

(i) the NO<sub>x</sub> emission limit, in pounds per mmBTU at HHV (as a 365-day rolling average if based on CEMS, or as a 3-hour average if based on stack tests) based upon any existing federally-enforceable, non-Title V (permanent) permit condition, including such a condition as may be reflected in a consolidated permit (where applicable), or the Covered Heater or Boiler; or

(ii) the NO<sub>x</sub> emission limit, in pounds per mmBTU at HHV, reflected in any permit application for a federally-enforceable, non-Title V (permanent) permit, including a consolidated permit where such limit would also be permanent, submitted by Alon for such Covered Heater or Boiler prior to the date of submittal of the Compliance Report.

In the event that Alon identifies a NO<sub>x</sub> emission limit, in pounds per mmBTU at HHV, for a Covered Heater or Boiler pursuant to this Paragraph based on a NO<sub>x</sub> emission limit

then reflected in a pending permit application, Alon shall not withdraw such application nor may Alon seek to modify that application to increase the NO<sub>x</sub> emission limit reflected in such application without prior EPA approval.

b. Heat Input Capacity, in mmBTU/hr at HHV, for each Covered Heater and Boiler, including an explanation of any change relative to that reported in the most recent Annual Update.

c. A demonstration of compliance with Paragraph 35.b, performed in accordance with Paragraph 40.

d. If Alon transfers ownership of the Big Spring Refinery before achieving all of the NO<sub>x</sub> reductions required by Paragraph 35.b, Alon will notify EPA of that transfer and the NO<sub>x</sub> reduction requirements of Paragraph 35.b will apply to the transferred refinery after such transfer.

40. Alon shall demonstrate compliance with the provisions of Paragraph 35.b, by the following inequality:  $0.040 \geq \sum (EL_i \times HIR_i) / \sum HIR_i$

For purposes of this Paragraph:

EL<sub>i</sub> = The relevant NO<sub>x</sub> Emission Limit for Covered Heater or Boiler “i”, in pounds per million BTU (HHV), as reported pursuant to Paragraph 39(a);

HIR<sub>i</sub> = Heat Input Capacity of Covered Heater or Boiler “i”, in million BTU (HHV) per hour, as reported pursuant to paragraph 33 (b);

n = The total number of Covered Heaters and Boilers at the Big Spring Refinery subject to this Section.

41. Monitoring Requirements. By no later than December 31, 2016, Alon shall monitor each Covered Heater or Boiler according to the method provided in the Initial Inventory,

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except as provided in Subparagraph “d” below. For any new Covered Heater or Boiler, Alon shall monitor each Covered Heater or Boiler as follows:

a. For each Covered Heater or Boiler with a Heat Input Capacity equal to or greater than 100 mmBtu/hr (HHV) install or continue to operate a NO<sub>x</sub> and O<sub>2</sub> CEMS;

b. For each Covered Heater or Boiler with a Heat Input Capacity of less than 100 mmBTU/hr (HHV), (i) conduct an initial performance test and any periodic tests that may be required by EPA or by the applicable State or local permitting authority under other applicable regulatory authority; or (ii) comply with the monitoring requirements described in Subparagraph “a” of this Paragraph, above. The results of the initial performance testing shall be reported to EPA within 30 days after Date of Entry. Alon shall perform a second performance test within one year of the initial performance test. The results of the second performance test shall be reported to EPA within 90 days of completing the test. Alon shall perform performance tests every two calendar years thereafter for the life of the Consent Decree.

c. Alon shall use Method 7E of 40 C.F.R. Part 60, Appendix A-4, or an EPA-approved alternative test method, to conduct performance testing required by Subparagraph 41.b.

d. Crude Heater D. By no later than 18 months from the Date of Entry, Alon shall notify EPA of its election to either:

i. Physically de-rate the Heat Input Capacity of Crude Heater D to less than 100 mmBtu/hr; or

ii. Maintain Crude Heater D’s capacity at greater than 100 mmBtu/hr and to install and operate a NO<sub>x</sub> and O<sub>2</sub> CEMS.



Alon shall physically de-rate or install a NO<sub>x</sub> and O<sub>2</sub> CEMS Crude Heater D by no later than the next refinery turnaround, scheduled as of the Date of Lodging to be completed during the fourth quarter of 2019. If the schedule for completion of the next refinery turnaround changes from the fourth quarter of 2019, Alon shall include the new date for the turnaround in its Semi-Annual Report required under Section VIII, and shall physically de-rate or install a NO<sub>x</sub> and O<sub>2</sub> CEMS Crude Heater D during the rescheduled turnaround. Alon shall begin to operate the NO<sub>x</sub> and O<sub>2</sub> CEMS following completion of the refinery turnaround. Prior and up to the next refinery turnaround, Alon shall continue to monitor Crude Heater D as required by TCEQ Permit No. 36845. Alon shall thereafter monitor Crude Heater D as required by Subparagraph “a” or “b” above, as applicable.

42. Demonstrating Compliance Through Use of a NO<sub>x</sub> CEMS. Alon shall certify, calibrate, maintain, and operate the CEMS required by Paragraph 41 in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) 40 C.F.R. Part 60, Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B.

**G. SO<sub>2</sub> EMISSIONS REDUCTIONS FROM, AND NSPS APPLICABILITY TO, HEATERS, BOILERS, AND OTHER FUEL GAS COMBUSTION DEVICES (OTHER THAN FLARING DEVICES)**

Summary: Alon shall undertake measures to reduce SO<sub>2</sub> emissions from refinery heaters and boilers and other fuel gas combustion devices (other than Flaring Devices) at the Big Spring Refinery by restricting H<sub>2</sub>S in refinery fuel gas and by agreeing not to burn Fuel Oil except as specifically permitted under the provisions set forth herein.

43. NSPS Applicability to Heaters and Boilers

a. By no later than the Entry Date, each heater and boiler that is used to combust fuel gas at the Big Spring Refinery is an “affected facility” as that term is used in 40 C.F.R. Part 60, Subparts A and J, or Ja, as specified in Appendix A. On and after

the Entry Date, each heater and boiler shall continue to be subject to and comply with the requirements of NSPS Subparts A and J, or Ja, as applicable, for fuel gas combustion devices.

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

c. If prior to the termination of this Consent Decree, the heater or boiler becomes subject to NSPS Subpart Ja due to a “reconstruction” (as that term is defined in Subpart Ja), the reconstructed facility shall be subject to and comply with NSPS Subpart Ja for all pollutants in lieu of Subpart J. The compliance deadline shall be the earlier of the compliance deadline in this Consent Decree or that required by Subpart Ja.

44. Elimination/Reduction of Fuel Oil Burning.

a. Existing Combustion Devices. Effective on the Entry Date, Alon shall not burn Fuel Oil in any combustion unit at the Refinery except during periods of Natural Gas Curtailment or operator training. “Fuel Oil” means any liquid fossil fuel with a sulfur content greater than 0.05% by weight. However, nothing in this Paragraph shall be construed to allow Alon to violate any existing permit limit related to sulfur in fuel oil at the Big Spring Refinery. Nothing herein is intended to limit, or shall be interpreted as

limiting, the use of Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.

b. Combustion Devices Constructed After Lodging. After the Date of Lodging until Termination, Alon will not construct any new combustion device that burns Fuel Oil unless the air pollution control equipment controlling the combustion device either (i) has an SO<sub>2</sub> control efficiency of 90% or greater; or (ii) achieves an SO<sub>2</sub> concentration of 20 ppm at 0% O<sub>2</sub> or less on a three-hour rolling average basis. Nothing in this Paragraph will exempt Alon from securing all necessary permits before constructing a new combustion device.

#### **H. SULFUR RECOVERY PLANT OPERATIONS AT THE BIG SPRING REFINERY**

45. Sulfur Recovery Plant NSPS Applicability and Compliance. The Big Spring Refinery has one Sulfur Recovery Plant (“SRP”) with two Sulfur Recovery Units. The Big Spring Refinery’s SRU #1 and SRU #2 each have a Claus train and a Scot Tail Gas Unit. The Big Spring Refinery’s SRU #1 and SRU #2 have been and are “affected facilities” as that term is used in 40 C.F.R. Part 60, Subparts A and J. On and after the Entry Date, the Big Spring Refinery’s SRP shall continue to be subject to and shall comply with the requirements of the NSPS Subparts A and J, including all monitoring, recordkeeping, reporting, and operating requirements.

a. NSPS Emission Limits. Beginning no later than the Entry Date, Alon shall ensure that the Big Spring SRP complies with the emission standards and limits applicable to SRPs in 40 C.F.R. Part 60, Subparts A and J.

b. NSPS Operation and Maintenance Requirements. At all times on and after the Entry Date, including periods of Startup, Shutdown, and Malfunction, Alon shall, to

the extent practicable, operate and maintain the Big Spring SRP and associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions as required by 40 C.F.R. § 60.11(d).

c. Monitoring. By no later than the Entry Date, for the Big Spring SRP, Alon shall operate CEMS and monitor all emissions points (stacks, incinerators, and bypass routes) to the atmosphere for Tail Gas emissions and shall monitor and report excess emissions from the SRPs as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105(a)(5), (6) or (7). Alon shall monitor emissions from the SRP with CEMS at all of the emission points, unless an SRP alternative monitoring procedure has been approved by EPA, pursuant to 40 C.F.R. § 60.13(i), for any of the emission points. The requirement for continuous monitoring of the SRP emission points is not applicable to the Acid Gas Flaring Devices used to flare the Acid Gas or Sour Stripper Gas diverted from the SRP.

d. Other Requirements. By no later than the Entry Date, Alon shall ensure that each SRP complies with all other applicable provisions of NSPS set forth at 40 C.F.R. Part 60, Subparts A and J, including but not limited to all applicable recordkeeping and reporting requirements.

e. If prior to the termination of this Consent Decree the SRP becomes subject to NSPS Subpart Ja due to a “modification” or a “reconstruction” (as those terms are defined in Subpart Ja), the SRP shall be subject to and comply with NSPS Subpart Ja, in lieu of NSPS Subpart J.

46. Sulfur Pit Gases.

a. By no later than the Entry Date, Alon shall route all sulfur pit gases so that sulfur pit gases are eliminated, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart J limit for SO<sub>2</sub>, 40 C.F.R. § 60.104(a)(2).

b. If prior to the termination of this Consent Decree the SRP becomes subject the NSPS Subpart Ja as provided in Paragraph 45.e, Alon shall route all sulfur pit gases so that sulfur pit gases are eliminated, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart Ja limit for SO<sub>2</sub>, 40 C.F.R. § 60.102a(f)(1).

47. Preventive Maintenance and Operation Plan.

a. By no later than 180 days after Date of Entry, Alon shall submit to EPA a summary of the plans, implemented or to be implemented, at the Big Spring Refinery for enhanced maintenance and operation of the SRP (including its control devices), any sulfuric acid plants and their control devices, and Upstream Process Units. Those plans shall be termed the Preventative Maintenance and Operations Plan ("PMO Plan"). The PMO Plan shall be a compilation of Alon's approaches for exercising good air pollution control practices and for minimizing SO<sub>2</sub> emissions from sulfur processing and Upstream Process Units at the Refinery. PMO Plans shall have as their goals the elimination of Acid Gas Flaring and the operation of the SRP between scheduled maintenance turnarounds with minimization of emissions. The PMO Plan shall include, but shall not be limited to, sulfur shedding procedures, Startup and Shutdown procedures of SRP, control devices and Upstream Process Units, emergency procedures and schedules to coordinate maintenance turnarounds of the SRP Claus trains and any control device to coincide with scheduled turnarounds of major Upstream Process Units. Through and after termination of this Consent Decree, Alon shall implement the PMO Plan at all

times, including periods of Startup, Shutdown and Malfunction of its SRP, consistent with the requirements imposed by 40 C.F.R. § 60.11(d). Changes to a PMO Plan related to minimizing Acid Gas Flaring and/or SO<sub>2</sub> emissions shall be summarized and reported by Alon to EPA in the Semi-Annual Report required under Section VIII.

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

## **I. FLARING DEVICES**

48. Good Air Pollution Control Practices. On and after the Entry Date, Alon shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction, implement good air pollution control practices to minimize emissions from its Flaring Devices, in a manner consistent with and as required by 40 C.F.R. § 60.11(d). Alon shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all such incidents in accordance with the procedures for Acid Gas Flaring Incidents in Paragraphs 52.a and 53.a.

49. NSPS Applicability to Flaring Devices. Alon currently owns and/or operates the following Flaring Devices at the Big Spring Refinery: Northside Flare (F1), Southside Flare (F6), Crude Flare (F3), and HDS Reformer Flare (F4). Each of these Flaring Devices has been and is an “affected facility” as that term is used in NSPS 40 C.F.R. Part 60, Subparts A and J.

50. Each flaring device listed in Paragraph 49 is an “affected facility” as that term is used in 40 C.F.R. Part 60, Subparts A and Ja, and by Date of Entry, Alon shall comply with all

applicable requirements of 40 C.F.R. Part 60, Subparts A and Ja for Southside Flare (F6), Crude Flare (F3), and HDS Reformer Flare (F4).

a. By November 11, 2016, Alon shall either: (1) comply with all applicable requirements of 40 C.F.R. Part 60, Subparts A and Ja for Northside Flare (F1); or (2) submit to EPA a compliance plan and schedule for complying with all applicable requirements of 40 C.F.R. Part 60, Subparts A and Ja for Northside Flare (F1). The compliance plan and schedule (or any revisions to the compliance plan and schedule) will consider installation of a control or controls to ensure compliance with all applicable requirements of 40 C.F.R. Part 60, Subparts A and Ja. The plan will provide for compliance of the Northside Flare to comply with 40 C.F.R. Part 60, Subparts A and Ja as soon as practicable, but in no event later than by the next refinery turnaround, scheduled as of the Date of Lodging to be completed during the fourth quarter of 2019. If the schedule for completion of the next refinery turnaround changes from the fourth quarter of 2019, Alon shall include the new date for the turnaround in its Semi-Annual Report required under Section VIII, and shall complete installation of all control(s) as needed for the Northside Flare (F1) during the rescheduled turnaround.

b. Entry of this Consent Decree and compliance with the relevant monitoring requirements of this Consent Decree shall satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

c. Notwithstanding any provision in 40 C.F.R. Part 60, Subpart Ja that permits the owner or operator of a flare to apply for an exemption from the H<sub>2</sub>S monitoring requirements in the Subpart, Alon shall install, operate, calibrate and maintain

instrumentation compliant with 40 C.F.R. § 60.107a(a)(2) to monitor H<sub>2</sub>S in the fuel gas before being burning in any flare listed in Paragraph 49.

**J. CONTROL OF ACID GAS FLARING AND TAIL GAS INCIDENTS**

51. Reserved.

52. Acid Gas Flaring Incidents and Tail Gas Incidents.

a. By no later than the Date of Lodging, Alon shall comply with the root cause, corrective action and reporting requirements of 40 C.F.R. Part 60, Subpart Ja but not the root cause and corrective action requirements in this Subsection V.J applicable to Tail Gas Incidents defined at Paragraph 14.tt(ii). The stipulated penalty provisions of Paragraph 181-184 shall not apply to Acid Gas Flaring and Tail Gas Incidents covered by 40 C.F.R. Part 60, Subpart Ja.

b. By no later than the Date of Entry, Alon shall comply with the incident investigation and corrective action procedures of this Subsection V.J through and after termination of the Consent Decree for Tail Gas Incidents defined at Paragraph 14.tt(ii), but the reporting and stipulated penalty provisions of this Subsection shall not apply after Termination. If prior to the termination of this Consent Decree the SRP becomes subject to NSPS Subpart Ja as provided in Paragraph 45.e, the root cause and corrective action requirements in this Subsection V.J applicable to Tail Gas Incidents defined at Paragraph 14.tt(ii) shall no longer apply, and Alon shall comply with the root cause, corrective action and reporting requirements of 40 C.F.R. Part 60, Subpart Ja.

53. Investigation and Reporting.

a. For each Acid Gas Flaring Incident occurring after the Entry Date, Alon shall conduct an investigation as required by NSPS Subpart Ja, and shall report the information required by 40 C.F.R. § 60.108(d) in the Semi-Annual Report for the time



period in which the Acid Gas Flaring Incident occurred, as required by Paragraph 63 of this Decree.

b. For each Tail Gas Incident defined at Paragraph 14.tt(ii) (a “Paragraph 14.tt(ii) TG Incident”) occurring after the Entry Date, Alon shall conduct an investigation into the Root Cause or Causes of the incident, and record the finding of the investigation in a Root Cause Analysis Report, which shall be submitted to EPA as part of a Semi-Annual Report for the time period in which the Paragraph 14.tt(ii) TG Incident occurred, as required by Paragraph 63 of this Decree. The report for each incident shall include, at a minimum, the following:

i. The date and time that the Paragraph 14.tt(ii) TG Incident started and ended. To the extent that the incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, Alon 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 Alon took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Paragraph 14.tt(ii) TG Incident;

iv. A detailed analysis that sets forth the Root Cause or Causes and all contributing causes of that Paragraph 14.tt(ii) TG Incident, to the extent determinable;

v. An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of a Paragraph 14.tt(ii) TG Incident resulting from the same Root Cause or contributing causes in the future. The analysis shall discuss all reasonable 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 Alon concludes that corrective action(s) is (are) required under Paragraph 54, 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 Alon concludes that corrective action is not required under Paragraph 54, the report shall explain the basis for that conclusion;

vii. A statement that: (i) specifically identifies each of the grounds for stipulated penalties in Paragraphs 55 and 56 of this Decree and describes whether or not the Paragraph 14.tt(ii) TG Incident falls under any of those grounds; provided, however, that Alon may choose to submit with the Root Cause Analysis a payment of stipulated penalties in the nature of settlement without the need to specifically identify the grounds for the penalty. Such payment of stipulated penalties shall not constitute an admission of liability, nor shall it raise any presumption whatsoever about the nature, existence or strength of Alon's potential defenses; (ii) if a Paragraph 14.tt(ii) TG Incident falls under Paragraph 57 of this Decree, describes which Subparagraph (57.a or 57.b) applies and why; and (iii) if a Paragraph 14.tt(ii) TG Incident falls under either Paragraph 54 or

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Subparagraph 57.b, states whether or not Alon asserts a defense to the Paragraph 14.tt(ii) TG Incident, and if so, a description of the defense;

viii. 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 Subparagraphs d and e of this Paragraph 53 shall be completed; provided, however, that if Alon has not completed 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 this Paragraph 53 (or such additional time as the EPA may allow), the stipulated penalty provisions of Section X.J shall apply. Nothing in this Paragraph shall be deemed to excuse Alon from its investigation, reporting, and corrective action obligations under this Section for any Paragraph 14.tt(ii) TG Incident that occurs after a Paragraph 14.tt(ii) TG Incident for which Alon has requested an extension of time under this Subparagraph 53.b.viii; and

ix. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the completion of the report required under this Paragraph, then Alon shall include in the next Semi-Annual Report a supplemental report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

54. Corrective Action.

a. In response to any Paragraph 14.tt(ii) TG Incident occurring after the Entry Date, Alon 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 or Causes and all contributing causes of that Paragraph 14.tt(ii) TG Incident.

b. EPA does not, by its agreement to the entry of this Decree, or by its failure to object to any corrective action that Alon may take in the future, warrant or aver in any manner that any of Alon's corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or any other applicable federal, state, or local law or regulation.

c. Notwithstanding EPA's review of any plans, reports, corrective actions or procedures under this Subsection V.J, Alon shall remain solely responsible for complying with the Clean Air Act and its implementing regulations. Nothing in this Subsection V.J 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, except as set forth in Paragraph 180.

d. After review of any report required by Paragraph 53 and submitted as required by Paragraph 63, EPA will notify Alon in writing of (i) any deficiencies in the corrective actions identified in the report and/or (ii) any objections to the schedules for corrective actions. EPA will also explain the basis for its objection(s) to the corrective actions and/or schedule(s). Alon shall implement an alternative or revised corrective action or implementation schedule based on EPA's comments. If a corrective action that EPA has identified as deficient has already been completed by the time of EPA's notification, Alon shall not be obligated to implement the corrective action as specified by EPA for that incident. Alon shall be on notice, however, that EPA has determined that the corrective action is deficient and not acceptable for remedying the same or similar Root Cause or Causes of later incidents. If EPA and Alon cannot agree on the

appropriate corrective action(s) to be taken in response to a particular Paragraph 14.tt(ii) TG Incident, either Party may invoke the Dispute Resolution provisions of Section XV of the Consent Decree.

e. Nothing in this Subsection V.J shall be construed to limit the right of Alon to take such corrective actions as it deems necessary and appropriate immediately following an Paragraph 14.tt(ii) TG Incident or in the period during preparation and review of any reports required under this Paragraph.

55. Stipulated Penalties for Paragraph 14.tt(ii) TG Incidents. As indicated in Appendix D (Stipulated Penalties Flow Chart), the stipulated penalty provisions of Paragraph 181 shall apply to any Paragraph 14.tt(ii) TG 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; or
- c. A failure of equipment that is due to a failure by Alon to operate and maintain that equipment in a manner consistent with good engineering practice.

56. As indicated in Appendix D (Stipulated Penalties Flow Chart), if the Paragraph 14.tt(ii) TG Incident is not a result of one of the Root Causes identified in Paragraph 55, then the stipulated penalty provisions of Paragraph 181 shall apply if the Paragraph 14.tt(ii) TG Incident:

- a. Results in emissions of sulfur dioxide at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more and Alon failed to act in accordance with its PMO Plan and/or to take any action during the Paragraph

14.tt(ii) TG Incident to limit the duration and/or quantity of SO<sub>2</sub> emissions associated with such incident; or

b. Causes the total number of Paragraph 14.tt(ii) TG Incidents in a rolling twelve-month (12-month) period to exceed five (5).

57. As indicated in Appendix D (Stipulated Penalties Flow Chart), with respect to any Paragraph 14.tt(ii) TG Incident not identified in Paragraphs 55 or 56, the following provisions shall apply:

a. First Time: If the Root Cause of the Paragraph 14.tt(ii) TG Incident was not a recurrence of the same Root Cause that resulted in a previous Paragraph 14.tt(ii) TG Incident that occurred after the Entry Date, then:

i. If the Root Cause of the Paragraph 14.tt(ii) TG 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 Paragraph 14.tt(ii) TG Incidents; or

ii. If the Root Cause of the Paragraph 14.tt(ii) TG Incident was sudden and infrequent, but reasonably preventable through the exercise of good engineering practice, then Alon shall implement corrective action(s) pursuant to Paragraph 54, and the stipulated penalty provisions of Paragraph 181 shall not apply.

b. Recurrence: If the Root Cause is a recurrence of the same Root Cause that resulted in a previous Paragraph 14.tt(ii) TG Incident that occurred since the Entry Date, then Alon shall be liable for stipulated penalties under Paragraph 181 unless:

- i. the Paragraph 14.tt(ii) TG Incident resulted from a Malfunction;
- ii. the Root Cause previously was designated as an agreed-upon Malfunction under Subparagraph 57.a.i.; or
- iii. the Paragraph 14.tt(ii) TG Incident had as its Root Cause the recurrence of a Root Cause for which Alon had previously developed, or was in the process of developing, a corrective action plan for which Alon had not yet completed implementation.

58. Defenses. As indicated in Appendix D (Stipulated Penalties Flow Chart), Alon may raise the following affirmative defenses in response to a demand by the United States for stipulated penalties:

- a. Force majeure;
- b. Malfunction;
- c. As to Paragraphs 55 and 57, the Paragraph 14.tt(ii) TG Incident does not meet the identified criteria.

59. In the event a dispute under Paragraphs 55-58 is brought to the Court pursuant to the Dispute Resolution provisions of this Consent Decree, Alon may also assert a Startup, Shutdown and/or Malfunction defense, but the United States shall be entitled to assert that such defenses are not available. If Alon prevails in persuading the Court that the defenses of Startup, Shutdown, and/or Malfunction are available for Paragraph 14.tt(ii) TG Incident under 40 C.F.R. § 60.104(a)(1), Alon shall not be liable for stipulated penalties for emissions resulting from such Startup, Shutdown and/or Malfunction. If the United States prevails in persuading the Court that the defenses of Startup, Shutdown and/or Malfunction are not available, Alon shall be liable for such stipulated penalties.

60. Other than for a Malfunction or force majeure, if no Paragraph 14.tt(ii) TG Incident occurs at the Big Spring Refinery for a rolling 36-month period commencing after the Entry Date, then the stipulated penalty provisions of Paragraph 181 shall no longer apply. EPA may elect to reinstate the stipulated penalty provision if such refinery has a Paragraph 14.tt(ii) TG Incident that 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 term of this Consent Decree.

61. Emission Calculations.

a. Calculation of the Quantity of Sulfur Dioxide Emissions Resulting from Paragraph 14.tt(ii) TG Flaring. For purposes of this Consent Decree, the rate of SO<sub>2</sub> emissions resulting from a Paragraph 14.tt(ii) TG Incident shall be calculated by the following method: If Tail Gas exceeding the 250 ppmvd NSPS J limit is emitted from a monitored SRP 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<sub>TGI</sub> = Emissions from Tail Gas Unit at the SRP incinerator, pounds of SO<sub>2</sub> over a 24 hour period

TD<sub>TGI</sub> = Hours when the incinerator CEM was exceeding 250 ppmvd SO<sub>2</sub> on a rolling twelve hour average, corrected to 0% O<sub>2</sub>, in each 24 hour period of the Incident

i = Each hour within TD<sub>TGI</sub>

FR<sub>Inc.</sub> = 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> = The 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 x 10<sup>-6</sup> = [lb mole of SO<sub>2</sub> / 379 scf SO<sub>2</sub>] [64 lbs SO<sub>2</sub> / lb mole SO<sub>2</sub>] [1 x 10<sup>-6</sup>]
- Standard conditions = 60 deg F; 14.7 lb<sub>force</sub>/sq.in. absolute.

b. 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 Alon shall estimate emissions based on best engineering judgment.

62. Reserved.

63. Semi-Annual Reporting. Effective on Date of Entry, as part of the Semi-Annual Reports required by Section VIII of this Decree, Alon shall include all reports on Paragraph 14.tt(ii) TG Incidents that Alon was required to prepare pursuant to this Subsection V.J. during the six-month period covered by the Semi-Annual Report that is due. In addition, each Semi-Annual Report shall include a summary of any such incidents during the six-month period, including, at a minimum, the following information regarding each incident:

- a. Date;
- b. Summary of the Root Cause or Causes;
- c. Duration;
- d. Amount of sulfur dioxide released;
- e. Any penalties due or demanded as a result of the incident;
- f. Any corrective actions completed;
- g. A list of all incidents for which corrective actions are outstanding.

Semi-Annual Reports shall also include a summary analysis of any trends identified by Alon in the number, Root Causes, types of corrective actions, and other relevant information regarding

Paragraph 14.tt(ii) TG Incidents during the six-month period covered by the report. Alon shall also include copies of reports due under 40 C.F.R. § 60.108a(d).

**K. [RESERVED]**

64. Reserved.

**L. BENZENE WASTE NESHAP PROGRAM ENHANCEMENTS**

65. Compliance with Subpart FF and with Additional Measures. In addition to complying with all applicable requirements of 40 C.F.R. Part 61, Subpart FF (“Benzene Waste Operations NESHAP” or “Subpart FF”), Alon agrees to undertake the measures set forth in this Subsection V.L to ensure continuing compliance with Subpart FF and to minimize or eliminate fugitive benzene waste emissions.

66. Current Compliance Status. Alon reports a Total Annual Benzene (“TAB”) of less than 10 Mg/yr at the Big Spring Refinery.

67. Refinery Compliance Status Changes. Commencing on the Entry Date of the Consent Decree, Alon will not change the compliance status of the Big Spring Refinery covered by this Decree to the 2 Mg compliance option. If at any time after the Date of Lodging of the Consent Decree and continuing through termination, the correct TAB at the Big Spring Refinery is equal to or greater than 10 Mg/yr or any Waste Management Units are installed to comply with a compliance plan developed pursuant paragraph 72, then the refinery will utilize the 6 BQ compliance option. Any measure taken to comply with the Benzene Waste Operations NESHAP not barred by this Consent Decree must be developed and implemented in accordance with the regulatory provisions of that program.

68. Big Spring’s TAB: Phase One of the Review and Verification Process. By no later than one year after the Entry Date, Alon will complete a review and verification of the Big

Spring TAB and compliance with Subpart FF. The Phase One review and verification process will include, but is not limited to:

a. an identification of each waste stream that is required to be included in the 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 (that meet the definition of waste under Subpart FF));

b. 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;

c. an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste streams consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided however, that previous analytical data or documented knowledge of waste streams may be used in accordance with 40 C.F.R. § 61.355(c)(2), for streams not sampled;

d. an identification of whether or not the stream is controlled consistent with the requirements of Subpart FF; and

e. an identification of each stream sent to the sour water stripper.

69. Submission of BWON Report. By no later than sixty (60) days following completion of the Phase One Review and Verification, Alon will submit to EPA a Benzene Waste Operations NESHA Compliance Review and Verification Report (“BWON Compliance Review and Verification Report”) that sets forth the results of the Phase One review and verification, including but not limited to the items identified in (a) through (e) of Paragraph 68, as well as the schematic required to be prepared under Paragraph 99. With respect to

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Paragraph 68.e., the BWON Compliance Review and Verification Report shall contain the following information for streams sent to the sour water stripper:

- a. Identification of each stream sent to the stripper (*i.e.*, equipment number)
- b. The concentration of ammonia and sulfur compounds in ppm by weight at the location where the stream exits the process unit component or storage tank prior to handling or treatment;
- c. Description of the basis for the determination of the concentration of ammonia and sulfur compounds for each stream (*e.g.*, material balance data, process knowledge, sampling, etc.);
- d. A tabular summary, schematic or diagram (showing equipment numbers) that identifies the origin of each stream;
- e. For streams containing ammonia and/or sulfur compounds at concentrations of less than 10 ppm and containing benzene:
  - i. identify each Waste Management Unit handling the stream upstream of the sour water stripper;
  - ii. An assessment of whether and how each Waste Management Unit, if any are present upstream of the stripper, compares to the physical control requirements listed in 40 C.F.R. §§ 61.343 – 61.347;
- f. The benzene content in any non-enclosed, non-sour water streams (*i.e.*, contains ammonia or sulfur compounds at concentrations of less than 10 ppm by weight) shall be included in the Refinery's TAB.

70. One-Time Review and Verification of the Big Spring TAB: Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review

and Verification Report, EPA may select up to twenty (20) additional waste streams at the Big Spring Refinery for sampling for benzene concentration. Alon will conduct the required sampling and submit the results to EPA within sixty (60) days of receipt of EPA's request. Alon will use the results of this additional sampling to reevaluate the TAB and the uncontrolled benzene quantity and to amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires Alon to sample a waste stream as part of the Phase Two review that Alon sampled and included as part of its Phase One review, Alon may average the results of such sampling. Alon will submit an amended BWON 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. This amended BWON Compliance Review and Verification Report will supersede and replace the originally-submitted BWON Compliance Review and Verification Report. In lieu of an amended BWON Compliance Review and Verification Report, Alon may elect to submit a supplementary report that identifies all changes or differences identified during the Phase One sampling (Supplementary Phase Two BWON Verification Report). If Alon submits a Supplementary Phase Two BWON Verification Report, the originally-submitted BWON Compliance Review and Verification Report plus the Supplementary Phase Two BWON Verification Report shall constitute the final report. As described in this Paragraph, the amended, supplemental, or original BWON Compliance Review and Verification Report, as applicable, will become the Final Compliance Review and Verification Report at the conclusion of the Phase Two Review and Verification process described herein.

71. Amended TAB Reports. If the results of the BWON Compliance Review and Verification Report indicate that the Big Spring Refinery's most recently-filed TAB report does

not satisfy the requirements of Subpart FF, Alon will submit, by no later than sixty (60) days after completion of the BWON Compliance Review and Verification Report, a complete amended TAB report to EPA. If a complete amended TAB report is provided as part of Alon's Final BWON Compliance Review and Verification Report, this will be deemed the amended TAB report for purposes of Subpart FF reporting to EPA.

72. Implementation of Actions Necessary to Correct Non-Compliance. If the results of the BWON Compliance Review and Verification Report for the Big Spring Refinery indicate a TAB of over 10 Mg/yr, Alon will submit to EPA, by no later than one-hundred eighty (180) days after completion of the BWON Compliance Review and Verification Report, a plan which: (a) identifies with specificity for such Refinery the actions it will take to ensure that the Refinery's TAB remains below 10 Mg/yr for the next calendar year and each calendar year thereafter; (b) if Alon cannot ensure a consistent TAB below 10 Mg/yr, a compliance strategy and schedule that Alon will implement to ensure that it complies with the 6 BQ compliance option as soon as practicable but by no later than one (1) year from the date of submittal of the compliance strategy and schedule; or (c) in the event that new controls are required to be installed to comply with the 6 BQ compliance option, Alon may propose for EPA approval, a compliance plan for installation of such controls, which shall be completed as soon as practicable, but in no event longer than three (3) years from the date of submittal of the compliance plan.

73. In the event that Alon must submit a compliance plan to comply with the 6 BQ compliance option pursuant to Paragraph 72, Alon will include in the plan a schedule for achieving compliance with Paragraphs 76-87 [carbon canisters], 97 [additional training], 100 [non-aqueous benzene waste streams], and 111 [misc. measures]. Unless Alon must comply

with the 6 BQ option pursuant to Paragraph 72, Paragraphs 76-87, 97, 100 and 111 are not applicable.

74. Implementation of Actions Necessary to Correct Non-Compliance: Review and Approval of Plans. Any plans submitted pursuant to Paragraph 72 will be subject to the approval of, disapproval of, or modification by EPA. Within one hundred twenty (120) days after receiving any notification of disapproval or request for modification from EPA, Alon will submit to EPA a revised plan that responds to all identified deficiencies. Unless EPA responds to Alon's revised plan within one hundred twenty (120) days, Alon will implement the proposed plan.

75. Implementation of Actions Necessary to Correct Non-Compliance: Certification of Compliance. By no later than sixty (60) days after completion of the implementation of all actions, if any, required pursuant to Paragraphs 72-74 to come into compliance with the applicable compliance option, Alon will submit to EPA its certification and a report that the Refinery has complied with its compliance option under the Benzene Waste Operations NESHAP.

76. Carbon Canisters. Alon will comply with the requirements of Paragraphs 77-87 at the Big Spring Refinery at all locations where (a) carbon canister(s) is (are) utilized as a control device under the Benzene Waste Operations NESHAP. To the extent that any applicable state or local rule, regulation, or permit contains more stringent definitions, standards, limitations, or work practices than those set forth in Paragraphs 77-87, then those definitions, standards, limitations or work practices will apply instead.

77. Installation of Primary and Secondary Canisters Operated in Series. Alon will replace all single carbon canisters or dual canister systems in parallel with primary and secondary carbon canisters and operate them in series.

78. Report Certifying Installation. By no later than one year after completing implementation of the compliance plan required by Paragraph 72(b) or (c), Alon will submit a report to EPA certifying the completion of the installations required by Paragraph 77. The report will include a list of all locations within the Refinery where dual carbon canister systems were installed, the installation date of each dual carbon canister system, the date that each dual carbon canister system was put into operation, whether Alon is monitoring for breakthrough for VOCs or benzene, and the concentration of the monitored parameter that the Refinery uses as its definition of "breakthrough." Alon must provide written notification to EPA at least thirty (30) days prior to changing either the parameter that it is monitoring and/or the concentration that it defines as "breakthrough."

79. Prohibition of Use of Single Canisters. Except as expressly provided in Paragraph 84, Alon will not use single carbon canisters for any new units or installations that require vapor control pursuant to the Benzene Waste Operations NESHAP at the Big Spring Refinery.

80. Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series and depending upon the parameter that Alon decides to monitor, "breakthrough" between the primary and secondary carbon canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene.

81. Monitoring for Breakthrough in Dual Canister Systems. Seven (7) days after the installation of any new dual carbon canister system, Alon will start to monitor for breakthrough



between the primary and secondary carbon canisters at times when there is actual flow to the dual carbon canister system, in accordance with the frequency specified in 40 C.F.R. § 61.354(d) and will monitor the outlet of the secondary carbon canister on a monthly basis or at its design replacement interval (whichever is less) to verify the proper functioning of the system. In the event there is no flow to the carbon canister system, Alon shall document the lack of flow and re-monitor at the next monitoring period.

82. Replacing Canisters in Dual Carbon Canister Systems. Alon will replace the original primary carbon canister (or route the flow to an appropriate alternative control device) immediately when breakthrough is detected. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister unless both the primary and secondary carbon canisters are replaced. For purposes of this Paragraph, “immediately” will mean eight (8) hours for canisters of 55 gallons or less and twenty-four (24) hours for canisters greater than 55 gallons. If the Refinery chooses to define breakthrough for primary carbon canister replacement at 5 ppm or lower VOC, the Refinery may replace primary canisters of 55 gallons or less within twenty-four (24) hours of detecting breakthrough. Where breakthrough is detected on a Saturday, Sunday, or federal holiday, replacement must occur within 48 hours or on the next business day, whichever is sooner.

83. In lieu of replacing the primary carbon canister immediately, Alon may elect to monitor the secondary carbon canister on the day breakthrough between the primary and secondary carbon canister is identified and each calendar day thereafter. This daily monitoring will continue until the primary carbon canister is replaced. If the monitored parameter (either benzene or VOC) is detected above background levels at the outlet of the secondary carbon

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canister during this period of daily monitoring, both carbon canisters must be replaced within eight (8) hours.

84. Limited Use of Single Canisters. Alon may utilize properly-sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For single canisters operated as part of a single canister system, breakthrough is defined for purposes of this Decree as any reading of VOC or benzene above background. Alon will monitor for breakthrough from single carbon canisters each day there is actual flow to the carbon canister.

85. Replacing Canisters in Single Canister Systems. Alon will replace the single carbon canister with a fresh carbon canister or fresh carbon, discontinue flow or route the stream to an alternate, appropriate device immediately when breakthrough is detected. For this Paragraph, “immediately” will mean eight (8) hours for single canisters of 55 gallons or less and within the next calendar day for single canisters greater than 55 gallons. Where breakthrough is detected on a Saturday, Sunday, or federal holiday, replacement must occur within 48 hours or on the next business day, whichever is sooner. If flow to a single canister is discontinued under this Paragraph, such canister may not be placed back into BWON vapor control service until it has been appropriately regenerated or replaced.

86. Maintaining Canister Supplies. Alon will maintain a supply of fresh carbon or carbon canisters at the Big Spring Refinery.

87. Records relating to Canisters. Alon will maintain records for the requirements of Paragraphs 76-86 in accordance with 40 C.F.R. § 61.356(j)(10).

88. Annual Review. By no later than 180 days after the Entry Date, Alon will maintain or modify existing management of change procedures, or develop a new program to

annually review process and project information for the Big Spring Refinery, including but not limited to construction projects, to ensure that all new benzene waste streams are included in the Refinery's waste stream inventory during the life of the Consent Decree.

89. Laboratory Audits. Alon will conduct audits of all laboratories that perform analyses of Alon's benzene waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed wherever they are required by this Consent Decree. For purposes of this Paragraph, if the Big Spring Refinery uses the same laboratories as other Alon refineries for purposes of their respective Consent Decree compliance, Alon may rely on the audits conducted by other Alon refineries.

90. Completion of Laboratory Audits and New Audits. By no later than 180 days after the Entry Date, Alon will complete audits of all of the laboratories it uses to perform analyses of benzene waste NESHAP samples. Alon will audit any new laboratory to be used for analyses of benzene waste NESHAP samples prior to such use.

91. Exception to Laboratory Audit Requirement. If Alon completed an audit of any laboratory on or after January 1, 2014, Alon will not be required to perform the initial audit of those laboratories pursuant to Paragraph 90.

92. Frequency for Later Laboratory Audits. During the life of this Consent Decree, Alon will conduct subsequent laboratory audits, such that each laboratory is audited every two (2) years. For laboratory audits meeting the exception in Paragraph 89 and 91, the two (2) year audit cycle will start from Date of Entry.

93. In lieu of conducting laboratory audits as required by Paragraphs 90 and 92, Alon may elect to use a laboratory that is accredited under the National Environmental Laboratory Accreditation Program ("NELAP") (*i.e.*, following a laboratory audit performed as required by

this Paragraph, Alon may use a NELAP accredited laboratory in lieu of performing its own audit pursuant to this Paragraph).

94. Qualifying Laboratory Audits. Alon may retain third parties to conduct these audits or use audits conducted by others as its own, but the responsibility and obligation to ensure that the Refinery complies with this Consent Decree and Subpart FF rest solely with Alon.

95. Benzene Spills. For each spill at the Big Spring Refinery after the Entry Date, Alon shall review the spill to determine if benzene waste, as defined by Subpart FF, was generated. For each spill involving the release of more than 10 pounds of benzene in a 24-hour period, the Refinery: (a) shall include benzene waste generated by the spill in the Refinery's TAB, as required by 40 C.F.R. § 61.342; and (b) shall account for such benzene waste in accordance with the applicable compliance option calculations, as appropriate under Subpart FF, unless the benzene waste is properly managed in controlled Waste Management Units at the Refinery.

96. Training. By no later than 60 days after the Entry Date for the Big Spring Refinery, Alon will develop and begin implementation of annual (*i.e.*, once each calendar year) training for all employees asked to draw benzene waste samples.

97. Additional Training. Alon will complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste Operations NESHAP at the Refinery and will complete an initial training program regarding these procedures for all operators assigned to this equipment. Comparable training will also be provided to any persons who subsequently become operators, prior to their assumption of this duty. Until termination of this Decree, "refresher" training in these procedures will be performed

at a minimum on a three (3) year cycle. Alon shall propose a schedule for training at the same time that it proposes a plan, pursuant to Paragraph 72, that identifies the compliance strategy and schedule that Alon will implement to secure and maintain compliance with the 6 BQ compliance option.

98. Training: Contractors. As part of Alon's training programs, Alon must ensure that the employees of any contractors hired to perform the requirements of Paragraphs 96 and 97 are properly trained to implement all applicable provisions of this Subsection V.L.

99. Waste/Slop/Off-Spec Oil Management: Schematics. Alon will include in the BWON Compliance Review and Verification Report required to be submitted to EPA pursuant to Paragraph 68 schematics for the Refinery that:

- a. depict the waste management units (including sewers) that handle, store, and transfer waste, slop, or off-spec oil streams;
- b. identify the control status of each waste management unit; and
- c. show how such waste streams are transferred within the Refinery.

Alon will include with the schematics a quantification of all uncontrolled waste, slop, or off-spec oil movements at the Refinery. If requested by EPA, Alon will submit to EPA within ninety (90) days of the request, revised schematics regarding the characterization of the wastewater, sourwater, and waste, slop, or off-specification oil streams and the appropriate control standards.

100. Waste/Slop/Off-Spec Oil Management: Non-Aqueous Benzene Waste Streams. All waste management units handling non-exempt, non-aqueous benzene wastes, as defined in Subpart FF, will meet the applicable control standards of Subpart FF.

101. Waste/Slop/Off-Spec Oil Management: Aqueous Benzene Waste Streams. For purposes of calculating the Refinery's TAB pursuant to the requirements of 40 C.F.R.

§ 61.342(a), Alon will include all waste/slop/off-spec oil streams that become “aqueous” until such streams are recycled to a process or put into a process feed tank (unless the tank is used primarily for the storage of wastes). Appropriate adjustments will be made to such calculations to avoid the double-counting of benzene. For purposes of complying with the 6 BQ compliance option, all waste management units handling benzene waste streams will either meet the applicable control standards of Subpart FF or will have their uncontrolled benzene quantity count toward the applicable 6 BQ limit.

102. Benzene Waste Operations Sampling Plans: General. By no later than 60 days after submitting the BWON Compliance Review and Verification Report required by Paragraph 69 or, if applicable, Paragraph 70, Alon will submit to EPA benzene waste operations sampling plans designed to describe the sampling of benzene waste streams that Alon will undertake to estimate quarterly and annual TABs if the Refinery’s TAB is below 10 Mg/yr, or quarterly and annual uncontrolled benzene quantities under the 6 BQ compliance option if the Refinery’s TAB equals or exceeds 10 Mg/yr.

103. Benzene Waste Operations Sampling Plans: Content Requirements.

- a. Sampling Plan if TAB under 10 Mg/yr. The sampling plan will identify:
  - i. all waste streams that contributed 0.05 Mg/yr or more at the point of generation to the previous year’s TAB calculations; and
  - ii. the proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual TAB calculations under the terms of Paragraph 106; and
  - iii. the proposed sampling locations on the schematic developed pursuant to Paragraph 99.

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The sampling plan will require Alon to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph (a)(i) and all locations identified in Subparagraph (a)(ii).

b. Sampling Plan under 6 BQ Compliance Option. If it is determined that the refinery TAB exceeds 10 Mg/yr, the sampling plan will identify:

i. All uncontrolled waste streams that count toward the 6 BQ calculation and contain greater than 0.05 Mg/yr of benzene at the point of generation; and

ii. The proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and calendar year annual uncontrolled benzene quantity calculations under the terms of Paragraph 106; and

iii. The proposed sampling locations on the schematic developed pursuant to Paragraph 99.

iv. The sampling plan will require Alon to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph b.i. and all locations identified in Subparagraph b.ii of this Paragraph.

c. Compliance Plan under Paragraph 72. If Alon must implement a compliance plan under Paragraph 72, Alon may submit a proposed sampling plan that does not include sampling points in locations within the Refinery that are subject to changes proposed in the compliance plan. To the extent that Alon believes that such sampling will not be effective until it completes implementation of the compliance plan and by no later than thirty (30) days prior to the due date for the submission of the

sampling plan, Alon may request EPA approval for postponing its submitting a sampling plan and commencing sampling until the compliance plan is completed. Should EPA disapprove, Alon will submit a plan by the due date in Paragraph 102.

104. Benzene Waste Operations Sampling Plans: Timing for Implementation. Alon will implement the sampling required under the applicable sampling plan for the Refinery during the first full calendar quarter after Alon submits the plan for the Refinery. Alon will continue to implement the sampling plan (a) unless and until EPA disapproves the plans; or (b) unless and until Alon modifies the plans, with EPA's approval, under Paragraph 105.

105. Benzene Waste Operations Sampling Plans: Modifications.

a. Changes in Processes, Operations or Other Factors. If changes in processes, operations or other factors lead Alon to conclude that a proposed or approved sampling plan may no longer provide an accurate basis for estimating the Refinery's quarterly or annual TABs or benzene quantities under Paragraph 106, then by no later than ninety (90) days after Alon determines that the plan no longer provides an accurate measure, Alon will submit to EPA a revised plan for EPA approval. In the first full calendar quarter after submitting the revised plan, Alon will implement it and continue to do so unless and until EPA disapproves the revised plan.

b. Requests for Modifications. After two (2) years of implementing a sampling plan at the Refinery covered by this Subparagraph, Alon may submit a request to EPA for approval, with a copy to the applicable state agency, to revise its sampling plan, including sampling frequency. Alon must not implement any proposed revisions under this Subparagraph until EPA provides its approval.



106. Quarterly and Annual Estimations of TABs and Uncontrolled Benzene Quantities.

Consistent with Paragraph 104, at the end of each calendar quarter and based on sampling results and approved flow calculations, Alon will calculate a quarterly and projected annual TAB or the uncontrolled benzene quantity for the Refinery, as applicable. In making these calculations, Alon will use the benzene concentration average of the three samples collected at each sampling location. If these calculations do not identify any potential exceedances of the benzene quantities identified in Paragraph 107, Alon will submit these calculations in the reports due under Section VIII of this Decree.

107. Corrective Measures: Basis. Except as set forth in Paragraph 108, Alon will implement corrective measures if:

- a. The quarterly TAB equals or exceeds 2.5 Mg or the projected annual TAB equals or exceeds 10 Mg for the then-current compliance year.
- b. If required to comply with the 6 BQ compliance option pursuant to this Consent Decree, the quarterly uncontrolled benzene quantity equals or exceeds 1.5 Mg or the projected annual uncontrolled benzene quantity equals or exceeds 6 Mg for the then-current compliance year.

108. Exception to Implementing Corrective Measures. If Alon can identify the reason(s) in any particular calendar quarter that the quarterly and projected annual calculations result in benzene quantities in excess of those identified in Paragraph 107 and states that it does not expect such reason or reasons to recur, then Alon may exclude the benzene quantity attributable to the identified reason(s) from the projected calendar year quantity. If that exclusion results in no potential violation of the benzene quantities identified in Paragraph 107, Alon will not be required to implement corrective measures under Paragraph 109, and Alon may

exclude the uncontrolled benzene attributable to the identified reason(s) in determining the applicability of Paragraph 109. At any time that Alon proceeds under this Paragraph, Alon will describe how it satisfied the conditions in this Paragraph in the reports due under Section VIII of this Decree.

109. Compliance Assurance Plan. If Alon meets one or more conditions in Paragraph 107 (except as provided under Paragraph 108), then by no later than sixty (60) days after the end of the calendar quarter in which one or more of the conditions were met, Alon will submit a compliance assurance plan to EPA for approval. In that compliance assurance plan, Alon will identify the cause(s) of the potentially-elevated benzene quantities, all corrective actions that Alon has taken or plans to take to ensure that the cause(s) will not recur, and the schedule of actions that Alon will take to ensure that the Refinery complies with the Benzene Waste Operations NESHAP for the calendar compliance year. Alon will implement the plan unless and until EPA disapproves it.

110. Third-Party Assistance. If at least one of the conditions in Paragraph 107 exists at the Refinery in two consecutive quarters, and the provisions of Paragraph 108 do not apply, Alon will retain for the Refinery a third-party contractor during the following quarter to undertake and complete a TAB study and compliance review at the Refinery within 90 days (*i.e.*, by the end of the following calendar quarter). By no later than ninety (90) days after Alon obtains results of the third-party TAB study and compliance review, Alon will submit such results and a plan and schedule for remedying any deficiencies identified in the third-party study and compliance review to EPA. Alon will implement their proposed plan unless and until EPA disapproves it.

111. Miscellaneous Measures. The provisions of this Paragraph will apply to the Big Spring Refinery, as required by Paragraph 73:

- a. Conduct monthly visual inspections of all Subpart FF water traps within the Refinery's individual drain systems;
- b. Identify and mark all area drains that are segregated storm water drains as defined in 40 C.F.R. § 61.341;
- c. On a weekly basis, visually inspect all Subpart FF conservation vents 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, the Refinery may submit a request to EPA Region 6 to modify the frequency of the inspections. Nothing in this Subparagraph c. will require Alon to monitor conservation vents on fixed roof tanks. Alternatively, for conservation vents with indicators that identify whether flow has occurred, Alon may elect to visually inspect such indicators on a monthly basis and, if flow is then detected, Alon will then visually inspect that indicator on a weekly basis for four (4) weeks. If flow is detected during any two (2) of those four (4) weeks, Alon will install a carbon canister on that vent until appropriate corrective action(s) can be implemented to prevent such flow; and
- d. Manage all groundwater remediation wastes that are covered by Subpart FF at the Refinery in accordance with 40 C.F.R. § 61.342(e).

112. Recordkeeping and Reporting Requirements for this Subsection V.L: Outside of the Reports Required Under 40 C.F.R. § 61.357 or Under the Progress Report Procedures of Section VIII (Recordkeeping and Reporting). At the times specified in the applicable provisions of this Subsection V.L, Alon will submit the following reports to EPA:

- a. BWON Compliance Review and Verification Report (Paragraph 69), as amended, if necessary (Paragraph 70);

- b. Amended TAB Report, if necessary (Paragraph 71);
- c. Plan for Big Spring Refinery to come into compliance with the 6 BQ compliance option upon discovering that its TAB equals or exceeds 10 Mg/yr through the BWON Compliance Review and Verification Report (Paragraph 72);
- d. Compliance certification, if necessary (Paragraph 75);
- e. Report certifying the completion of the installation of dual carbon canister systems (Paragraph 78);
- f. Schematics of waste/slop/off-spec oil movements (Paragraph 99), as revised, if necessary;
- g. Sampling Plans (Paragraph 102), and revised Sampling Plans, if necessary (Paragraph 105); and
- h. Plan to ensure that uncontrolled benzene does not equal or exceed, as applicable, 6 Mg/yr (Paragraph 109).

113. Recordkeeping and Reporting Requirements for this Section V.L: As Part of Either the Reports Required under 40 C.F.R. § 61.357 or the Progress Report Procedures of Section VIII (Recordkeeping and Reporting). Alon will submit the following information as part of the information submitted in either the quarterly report required pursuant to 40 C.F.R. § 61.357(d)(6) and (7) (“Section 61.357 Reports”) or in the reports due pursuant to Section VIII of this Decree:

- a. Sampling Results under Paragraph 102. The report will include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the quarterly and projected calendar year TAB for the Big Spring Refinery;

b. Training. Initial and/or subsequent training conducted in accordance with Paragraphs 96-97; and

c. Laboratory Audits. Initial and subsequent audits conducted pursuant to Paragraphs 90-92, through the calendar quarter for which the report is due, including in each such report, at a minimum, the identification of each laboratory audited, a description of the methods used in the audit, and the results of the audit. If the Refinery has elected to use a NELAP accredited lab, the report shall identify each laboratory used and shall include documentation of NELAP accreditation for each laboratory used.

114. Requests for Change in Reporting Frequency. At any time after two years of reporting pursuant to the requirements of Paragraph 113, Alon may submit a request to EPA to modify the reporting frequency for any or all of the reporting categories of Paragraph 113. This request may include a request to report the previous year's projected calendar year TAB and uncontrolled benzene quantity in the Section VIII report due on February 28 of each year, rather than semi-annually on February 28 and August 31 of each year. Alon will not change the due dates for their reports under Paragraph 113 unless and until EPA approves Alon's request.

115. Certifications Required in this Subsection V.L. Certifications required under this Subsection V.L. will be made in accordance with the provisions of Section VIII.

**M. LEAK DETECTION AND REPAIR**

116. As of 180 days after the Date of Entry, each "process unit" (as defined by 40 C.F.R. § 60.591) at the Big Spring shall be an "affected facility" for purposes of 40 C.F.R. Part 60, Subpart GGGa and shall be subject to and comply with the requirements of 40 C.F.R. Part 60, Subpart GGGa, and the requirements of this Section.

117. 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 gas/vapor service, Alon shall implement the enhancements in this Subsection V.M. to its Leak Detection and Repair (“LDAR”) programs under 40 C.F.R. Part 60, Subpart GGGa; Part 61, Subparts J and V; and Part 63, Subpart CC, at its Refinery, and for the Refinery’s Aromex Unit under 40 C.F.R. Part 63, Subparts F and H. For purposes of this Subsection V.M. the terms “equipment,” “in light liquid service” and “in gas/vapor service” shall have the definitions set forth in the applicable provisions of 40 C.F.R. Part 60, Subpart VVa and GGGa, Part 63, Subpart CC.

118. Written Refinery-Wide LDAR Program. By no later than 90 days after the Entry Date, Alon shall develop and maintain a written, Refinery-wide program for compliance with all applicable federal, state, and local LDAR regulations. Alon shall implement this program on a Refinery-wide basis and update such program as may be necessary to ensure continuing compliance through termination. The Refinery-wide LDAR Program shall include, at a minimum:

- a. An identification of all equipment in light liquid and/or gas/vapor service that is subject to periodic monitoring requirements via Method 21 under any applicable federal, state, or local LDAR regulation and that has the potential to leak VOCs, HAPs, VHAPs, and benzene;
- b. Procedures for identifying leaking equipment within process units;
- c. Procedures for repairing and keeping track of leaking equipment;
- d. Procedures (*e.g.*, a Management of Change program) to ensure that components subject to LDAR requirements that are added or removed to each facility during scheduled maintenance and construction activities are integrated into the LDAR program;

e. The number of personnel assigned to LDAR functions at the Big Spring Refinery and the percentage of time each person is dedicated to performing his/her LDAR functions; and

f. A procedure for regularly communicating LDAR information to appropriate Alon personnel.

119. By no later than 120 days after Entry Date, Alon shall submit a copy of the Refinery's initial written LDAR Program to EPA. Alon shall review this document on an annual basis and update it as needed by no later than December 31 of each year, beginning by December 31 of the first calendar year after submission of the written facility-wide LDAR Program.

120. Training. By no later than 150 days after the Entry Date, Alon shall implement a training program that includes the following features:

a. For personnel newly assigned to LDAR responsibilities, Alon shall require LDAR training prior to each employee beginning any LDAR work;

b. For all personnel assigned LDAR responsibilities, such as monitoring technicians, database users, QA/QC personnel, and the LDAR Coordinator, Alon shall provide and require completion of annual LDAR refresher training and initial training before the employee begins LDAR responsibilities or require its LDAR contractor to provide such training (initial annual LDAR training for all such personnel shall be completed no later than one year after the Entry Date);

c. For all other operations and maintenance personnel (including contract personnel) who have duties relevant to LDAR, such as operators and mechanics performing valve packing and designated unit supervisors reviewing for delay of repair work, Alon 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 (initial LDAR training for all such personnel shall be completed not later than one year after the Entry Date) and "refresher" training in LDAR shall be performed on a cycle of no longer than three years; and

d. If contract employees have LDAR responsibilities or have duties relevant to LDAR, Alon shall assure that the contractor complies with the training requirements of this Paragraph and shall require the contractor to provide its training information and records to Alon and, if requested, EPA.

121. LDAR Audits. Alon shall implement Refinery-wide LDAR Audits – including an Initial Third-Party LDAR Audit and Periodic LDAR Audits – as set forth in Paragraphs 122-124; to ensure compliance with all applicable LDAR requirements and Section M of this Consent Decree. Each LDAR Audit shall include, but shall not be limited to:

- a. Performing comparative monitoring;
- b. Reviewing records to ensure monitoring and repairs were completed in the required periods;
- c. Reviewing component identification procedures, tagging procedures, and data management procedures; and
- d. Observing LDAR technicians' calibration and monitoring techniques; and performing the following activities for Covered Equipment:
  - i. Calculating Comparative Monitoring Audit Leak Percentages.

Covered Equipment, excluding pumps and valves in heavy liquid service, shall be monitored in order to calculate a leak percentage for each Covered Process Unit, broken down by equipment type (*i.e.*, valves and pumps). The monitoring that



takes place during the audit shall be called “comparative monitoring” and the leak percentages derived from the comparative monitoring shall be called the “Comparative Monitoring Audit Leak Percentages.” Until termination of this Consent Decree, Alon shall conduct a comparative monitoring audit pursuant to this Paragraph during each LDAR audit. Each Covered Process Unit at the refinery that is not the subject of the current audit shall have a comparative monitoring audit at least once before a previously-audited Covered Process Unit is audited again.

ii. Calculating the Historic, Average Leak Percentage from Prior Periodic Monitoring Events. For each Covered Process Unit that is audited, the historic average leak percentage from prior periodic monitoring events, broken down by equipment type (*i.e.*, valves and pumps) shall be calculated. The following number of complete monitoring periods immediately preceding the comparative monitoring audit shall be used for this purpose: valves - 2 periods; and pumps - 12 periods.

iii. Calculating the Comparative Monitoring Leak Ratio. For the Covered Process Units audited, the ratio of the comparative monitoring audit leak percentage from Subparagraph 121.d.i to the historic periodic monitoring leak percentage from Subparagraph 121.d.ii shall be calculated (“Comparative Monitoring Leak Ratio”). If a calculated ratio yields an infinite result, Alon shall assume one leaking Covered Equipment was found in the process unit through its routine monitoring during the 12-month period before the audit, and the ratio shall be recalculated.

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122. Initial Third-Party LDAR Audit. By no later than 270 days after the Entry Date, Alon shall retain a third-party contractor with expertise in the LDAR Program's requirements to complete an Initial Third-Party LDAR Audit. No later than 60 days after the completion of the Initial Third-Party LDAR Audit, Alon shall submit the contractor's Report on the Initial Third-Party Audit to EPA. The Report shall describe the results of the Initial Third-Party LDAR Audit and disclose all areas of identified non-compliance.

123. Corrective Action Plan.

a. Requirements of a CAP. By no later than 30 days after the Initial LDAR Audit Completion Date, Alon shall develop a preliminary corrective action plan ("CAP") if the results of the Initial LDAR audit identify any deficiencies or if the Comparative Monitoring Leak Ratio calculated pursuant to Subparagraph 121.d.iii is 3.0 or higher and the Comparative Monitoring Audit Leak Percentage is greater than or equal to 0.5 percent. The CAP shall describe the actions that Alon shall take to correct the deficiencies and/or the systemic causes of a Comparative Monitoring Leak Ratio that is 3.0 or higher and a Comparative Monitoring Audit Leak Percentage that is greater than or equal to 0.5 percent. The CAP also shall include a schedule by which those actions shall be undertaken. Alon shall complete each corrective action as expeditiously as possible with the goal of completing each action within 90 days after the Initial LDAR Audit Completion Date. If any action is not completed or is not expected to be completed within 90 days after the Initial LDAR Audit Completion Date, Alon shall explain the reasons in the final CAP to be submitted under Subparagraph 123.b, together with a proposed schedule for completion of the action(s) as expeditiously as practicable.

b. Submissions of the CAP to EPA. By no later than 120 days after the Initial LDAR Audit Completion Date, Alon shall submit the final CAP to EPA, together with a certification of the completion of corrective action(s). For any corrective actions requiring more than 90 days to complete, Alon shall include an explanation together with a proposed schedule for completion as expeditiously as practicable, as described in subparagraph (a).

c. Approval/Disapproval of All or Parts of a CAP.

i. Unless within 60 days after receipt of the CAP, EPA disapproves all or part of a CAP's proposed actions and/or schedules, the CAP shall be deemed approved.

ii. By no later than 60 days after receipt of Alon's CAP, EPA may disapprove any or all aspects of the CAP. Each item that is not specifically disapproved shall be deemed approved. Except for good cause, EPA may not disapprove any action within the CAP that already has been completed. Within 45 days of receipt of any disapproval from EPA, Alon shall submit a revised CAP that addresses the deficiencies that EPA identified. Alon shall implement the revised CAP either pursuant to the schedule that EPA proposed, or, if EPA did not so specify, as expeditiously as practicable.

124. Periodic Third-Party Audits. Alon shall retain a contractor with expertise in the LDAR Program's requirements to perform a Periodic Third-Party LDAR Audit at least once every four (4) calendar years after the Initial LDAR Audit is completed under Paragraph 122 (with approximately 48 months between the Audits).

125. Periodic Internal Audits. Periodic Internal LDAR shall be completed by having an audit performed by Alon personnel familiar with the LDAR Program's requirements or contractors with expertise in the LDAR Program's requirements. Alon shall complete a Periodic Internal LDAR Audit by no later than two (2) years from the date of the completion of the Third-Party LDAR Audits required by Paragraph 124. Alon shall perform an internal LDAR audit at least once every four (4) calendar years (with approximately 48 months between the Audits). Alon may elect to retain third-parties to undertake these internal audits, provided that an audit occurs every two (2) years.

126. Audit Every Two Years. To ensure that an LDAR Audit occurs every two (2) years, once the Initial Third-Party Audit is completed, the remaining Periodic Third-Party Audits and Periodic Internal Audits shall be separated by not more than two (2) calendar years (with approximately 24 months between the Audits).

127. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the LDAR Audits conducted pursuant to Paragraphs 122-125 identify any areas of non-compliance Alon shall implement all steps necessary: to correct the area(s) of non-compliance as soon as practicable, and to prevent a recurrence of the cause of such non-compliance to the extent practicable. If the calculated ratio yields an infinite result, Alon shall assume one leaking valve was found in the process unit through its routine monitoring during the 4-quarter period. After the completion of any LDAR Audit other than the Initial Audit, Alon shall include the following information in the next Semi-Annual Report due under Section VIII of this Consent Decree: (a) a summary, including findings, of each such LDAR Audit; and (b) a list of corrective actions taken during the reporting period, and (c) any schedule for implementing future corrective actions. Alon shall also include a certification in which Alon certifies compliance,

except for any identified areas of non-compliance, and a schedule for correcting any identified deficiencies as soon as practicable. Until two years after termination of this Consent Decree, Alon shall retain the Initial Audit Report and all other LDAR Audit reports generated pursuant to Paragraphs 122-125, and shall maintain a written record of all corrective actions that Alon takes in response to deficiencies identified in any LDAR Audits.

128. Leak Definition for Valves and Pumps.

a. By no later than 180 days after the Date of Entry, for each leak detected at or above the leak definition for valves defined at 40 C.F.R. § 60.482-7a(b), Alon shall perform repairs in accordance with Paragraph 130 of this Consent Decree.

b. By no later than 180 days after the Date of Entry, for each leak detected at or above the leak definition for pumps defined at 40 C.F.R. § 60.482-2a(b)(1)(ii), Alon shall perform repairs in accordance with Paragraph 130 of this Consent Decree.

129. LDAR Monitoring Frequency.

By no later than 180 days after Date of Entry, for all Covered Equipment, Alon shall comply with the applicable monitoring frequency requirements that are applicable to valves in 40 C.F.R. § 60.482-7a, 40 C.F.R. § 60.482-4a, 40 C.F.R. § 60.482-8a, and 40 C.F.R. § 60.482-10a, except as provided in 40 C.F.R. § 60.482-1a, and for pumps as required by 40 C.F.R. § 60.482-2a. and 40 C.F.R. § 60.482-8a.

130. Recording, Tracking, Repairing and Re-monitoring Leaks of Valves and Pumps Based on the Leak Definitions.

a. Recording, Tracking, Repairing and Re-Monitoring Leaks. By no later than 180 days after the Entry Date, Alon shall record, track, repair and re-monitor all leaks in excess of the leak definitions in Paragraph 128. Alon shall make a first attempt

at repair and re-monitor the component within five (5) calendar days after a leak is detected and either complete repairs and re-monitor leaks or place such component on the refinery's delay of repair list according to Paragraph 141 within thirty (30) days after a leak is detected. All records of repairs, repair attempts, and re-monitoring shall be maintained for the life of the Consent Decree.

131. By no later than 180 days after the Date of Entry, except as provided in Paragraph 132, for each existing valve that has a Screening Value at or above 500 ppm during any monitoring event, Alon shall either replace or repack the existing valve with a Low-E Valve or Low-E Packing.

a. Timing: If Replacing or Repacking Does Not Require a Process Unit Shutdown. If replacing or repacking does not require a process unit shutdown, Alon shall replace or repack the existing valve by no later than 30 days following the monitoring event that triggers the replacing or repacking requirement, unless Alon complies with the following:

i. Prior to the 30-day deadline, Alon must take all actions necessary to obtain the required valve or valve packing, including all necessary associated materials, as expeditiously as practical, and retain documentation of the actions taken and the date of each such action;

ii. If, despite Alon's efforts to comply with Subparagraph a., the required valve or valve packing, including all necessary associated materials, is not available in time to complete the installation within one month, Alon must take all reasonable actions to minimize emissions from the valve pending completion of the required replacing or repacking. Examples include:

- (a) Repair;
- (b) More frequent monitoring, with additional repairs as needed; or
- (c) Where practical, interim replacing or repacking of a valve with a valve that is not a Low-E Valve or with packing that is not Low-E Packing; and

iii. Alon must promptly perform the required replacing or repacking after Alon's receipt of the valve or valve packing, including all necessary associated materials.

b. Timing: If Replacing or Repacking Requires a Process Unit Shutdown. If replacing or repacking requires a process unit shutdown, Alon shall replace or repack the existing valve during the first maintenance shutdown that follows the monitoring event that triggers the requirement to replace or repack the valve, unless Alon documents that insufficient time existed between the monitoring event and that maintenance shutdown to enable Alon to purchase and install the required valve or valve packing technology. In that case, Alon shall undertake the replacing or repacking at the next maintenance shutdown that occurs after Alon's receipt of the valve or valve packing, including all necessary associated materials.

132. If, during the first monitoring event after installation, a Low E Valve or a valve using Low E Packing has a Screening Value at or above 500 ppm, the leak is not a violation of this Consent Decree, does not invalidate the "Low-E" status or use of that type of valve or packing technology, and does not require replacing or repacking that valve. For purposes of these lower leak definitions in this Consent Decree, Alon may elect to adjust or not to adjust the

monitoring instrument readings for background pursuant to any provisions of applicable LDAR requirements that address background adjustment, provided that Alon complies with the requirements for doing so or not doing so.

133. Actions Required Pursuant to Applicable Regulations. For each existing valve that has a Screening Value at or above 500 ppm, Alon shall comply with all applicable regulatory requirements, including repair and “delay of repair,” pending replacing or repacking pursuant to Paragraph 130.

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

a. Electronic Storing and Reporting of LDAR Data. Alon shall have and continue to maintain an electronic database for storing and reporting LDAR data.

b. Electronic Data Collection During LDAR Monitoring and Transfer Thereafter. By no later than the Entry Date, Alon shall use data loggers and/or electronic data collection devices during all LDAR monitoring at the refinery. Alon, or its designated contractor, shall use its best efforts to transfer, by the end of the next business day, but by no later than within a week, the electronic data from electronic data logging devices to the electronic database maintained pursuant to Subparagraph 134.a. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp, and identification of the instrument and operator. Alon may only use paper logs where necessary or more feasible (*e.g.*, small rounds, re-monitoring, or when data loggers are unavailable or broken), and shall record, at a minimum, the identity of the technician conducting the monitoring, the date, the daily monitoring starting and ending times, and an identification of the monitoring equipment. Alon shall transfer any manually recorded monitoring data to the electronic database



maintained pursuant to Subparagraph 134.a within seven (7) days of the monitoring event. Alon shall maintain the LDAR information required by this Paragraph for the life of the Consent Decree, and shall provide such LDAR information in the original electronic format upon request by EPA.

135. Commencing by no later than the first full calendar quarter after 90 days of the Effective Date of this Consent Decree, at times that are not announced to the LDAR monitoring technicians, an LDAR-trained employee or contractor of Alon, who does not serve on a routine basis as an LDAR monitoring technician at the facility, shall undertake the following no less than once per calendar quarter:

- a. Verify that equipment was monitored at the appropriate frequency;
- b. Verify that proper documentation and sign-offs have been recorded for all equipment placed on the delay of repair list;
- c. Ensure that repairs have been performed in the required periods;
- d. Review monitoring data and equipment counts (*e.g.*, number of pieces of equipment monitored per day) for feasibility and unusual trends
- e. Verify that proper calibration records and monitoring instrument maintenance information are maintained;
- f. Verify that other LDAR program records are maintained as required; and
- g. Observe in the field each LDAR monitoring technician who is conducting leak detection monitoring to ensure that monitoring during the quarterly QA/QC is being conducted as required.

136. Alon shall certify that an LDAR-trained employee or contractor of Alon, who does not serve on a routine basis as an LDAR monitoring technician at the facility, completed the

review described in Paragraph 135.a-g. Alon shall include the quarterly certification in its Semi-Annual Reports.

137. Daily Certifications by Monitoring Technicians and LDAR Database Coordinator.

Commencing no later than 180 days after Date of Entry, on each day that monitoring occurs, at the end of such monitoring, Alon shall continue to ensure that each monitoring technician and LDAR Database Coordinator signs a form that includes the following certification:

For Monitoring Technicians:

On [insert date], to the best of my knowledge and belief, I performed monitoring according to Method 21 and I captured in my datalogger or paper logs the data associated with all of the components I monitored today.

For LDAR Database Coordinator:

On [insert date], I transferred to the Facility's LDAR database the data gathered today by the monitoring technicians in their dataloggers or paper logs and I did not manipulate or otherwise alter the data I transferred.

In lieu of using a form for each day of monitoring, a log sheet may be created that includes the certifications that the monitoring technician and LDAR Database Coordinator must date and sign each day of data collection and transferring.

138. Management of Change. By no later than the Entry Date, Alon shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added and/or removed to the Refinery during maintenance and construction are integrated into the LDAR program.

139. Adding New Valves and Pumps.

a. Newly-Installed Valves. By no later than two years from the Entry Date, Alon shall:

i. Ensure that all newly installed valves (other than sampling and instrumentation valves in service on piping with a diameter of 5/8" or less) are fitted, prior to installation, with a Low-E Valve or Low-E Packing Technology; and

ii. Modify its purchasing procedures to ensure that the Refinery evaluates the availability of valves and valve packing that meets the requirements for a Low-E Valve or Low-E Packing Technology at the time that the valves, valve packing and/or equipment is acquired for the Refinery.

b. Commercial Unavailability Exception. Alon shall not be required to utilize a Certified Low-Emission Valve or Certified Low-Emission Valve Packing Technology to replace or repack a valve if a Low-E Valve or Low-E Packing technology is commercially unavailable, in accordance with the provisions of Appendix B.

c. If Alon exercises the Commercial Unavailability Exception under this Paragraph for any valve, then Alon shall:

i. Include the following in the Semi-Annual Reports required under this Section: (a) identify each valve for which it could not comply with the requirement to replace or repack the valve with a Low-E Valve or Low-E Packing; (b) all of the information and documentation specified in Appendix B for each valve claimed to be commercially unavailable; and (c) identify the commercially-available valve or packing technology that comes closest to meeting the requirements for a Low-E Valve or Low-E Packing Technology.

ii. Alon shall install the valve(s) or packing technology it has identified to be commercially available that comes closest to meeting Low-E Valve or Low-E Packing Technology requirements.

d. Ongoing Assessment of Availability. Alon may use a prior determination of Commercial Unavailability of a valve or valve packing pursuant to this Paragraph and Appendix B for a subsequent Commercial Unavailability claim for the same valve or valve packing (or valve or valve packing in the same or similar service), provided that the previous determination was completed within the preceding 12-month period. After one year, Alon must conduct a new assessment of the availability of a valve or valve packing meeting Low-E Valve or Low-E Packing Technology requirements.

140. Calibration/Calibration Drift Assessment.

a. Calibration. Alon shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, and in accordance with 40 C.F.R. Part 60, Appendix A-7, Method 21.

b. Calibration Drift Assessment. By no later than the Entry Date, Alon shall conduct calibration drift assessment re-checks of the LDAR monitoring equipment at least twice during each monitoring shift, with one such re-check being at the end of the monitoring shift. Alon shall conduct the calibration drift assessment re-check 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, Alon shall re-monitor all valves that were monitored since the last calibration or calibration drift assessment that had a reading greater than 100 ppm and shall re-monitor all pumps

that were monitored since the last calibration or calibration drift assessment that had a reading greater than 500 ppm.

141. Delay of Repair. By no later than the Entry Date, Alon shall take the following actions for equipment that Alon is allowed to place on the “delay of repair” list for repair under 40 C.F.R. § 60.482-9a:

a. For all equipment:

i. Alon shall require sign-off by the appropriate operating 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

ii. Alon shall include equipment that is placed on the “delay of repair” list in Alon’s regular LDAR monitoring.

iii. Limit on delay of repair. By no later than 90 days after the Entry Date, no more than 0.20% of all valves may be on the delay of repair list at any one time. Any valve on the delay of repair list existing or subsequently added after the Date of Entry of the Consent Decree that will be replaced with a Low-E Valve or Low-E Packing technology at the next process unit shutdown may be excluded from the equipment subject to the 0.20% limit on delay of repair. Any such valves not so replaced shall be subject to the limit on delay of repair.

b. For Valves:

i. For valves (other than control valves) leaking at a rate of 5,000 ppm or greater and which cannot otherwise be repaired, Alon shall use the “drill and tap” repair method to repair the leaking valve (unless the valve is isolated

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from the process and does not remain in VOC service), prior to placing the valve on the delay of repair list, unless Alon can demonstrate that there is a major safety, mechanical, product quality, or environmental concern posed by repairing the leak in that manner. If not repaired within 15 days by other means, Alon shall perform the first “drill and tap” within 15 days, and a second attempt (if necessary) within 30 days after the leak is detected. After two unsuccessful attempts to repair the leaking valve through the “drill and tap” (or similarly effective) method, Alon may place the leaking valve on its “delay of repair” list. The requirement to make two attempts to repair a leaking component by the drill and tap method may be satisfied by making two sealant injection attempts rather than by making multiple taps into the valve body.

ii. Drill and tap is not required if Alon complies with the requirements of Paragraph 131.a.

142. Alternative Work Practice.

a. From the Date of Entry, Alon may utilize the Alternative Work Practice as defined at 40 C.F.R. § 60.18(g) (“the AWP”) for monitoring equipment that meets the “difficult to monitor” criteria set out at 40 C.F.R. § 60.482-7a(h)(1).

b. No sooner than three (3) years from the Date of Entry, Alon may submit a request for review and approval of an AWP for LDAR monitoring of all Covered Equipment. Such request shall include a protocol that, at a minimum, addresses the following operational criteria:

i. calibration procedures;

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- ii. startup (*i.e.*, warming-up the Optical Gas Imaging (OGI) Instrument)/shutdown procedures;
- iii. video recording and storage;
- iv. site-specific impact of weather conditions (*e.g.*, wind speed, temperature, and visibility);
- v. maintenance of the OGI Instrument;
- vi. certification of personnel to use the OGI instrument;
- vii. minimum number of hours of field use by certified personnel prior to certified personnel performing compliance monitoring; and
- viii. identification of process unit(s) where certified personnel may monitor with an OGI instrument.

If such request is approved by EPA, Alon may utilize the AWP for monitoring all Covered Equipment.

143. Compliance Status Reports. In the Semi-Annual Reports submitted by Alon pursuant to Section VIII (Recordkeeping and Reporting), Alon shall include the following information:

- a. The number of personnel assigned to LDAR functions at the Big Spring Refinery and the percentage of time each person is dedicated to performing his/her LDAR functions;
- b. An identification and description of any noncompliance with the requirements of this Section V.M;
- c. The information required in Paragraph 139.b-d (Commercial Unavailability of Low-E Valves or Low-E Packing);

- d. A description of any LDAR training conducted in accordance with the requirements of this Section V.M;
- e. Any deficiencies identified in the QA/QC performed under Paragraphs 121-123 (LDAR audits and corrective action), as well as any corrective actions taken under those paragraphs;
- f. A summary of LDAR audit results including specifically identifying all deficiencies; and
- h. The status of all actions under any CAP that was submitted pursuant to Paragraph 123 during the reporting period.

**N. INCORPORATION OF CONSENT DECREE REQUIREMENTS INTO FEDERALLY-ENFORCEABLE PERMITS**

144. Emission Limits and Standards Effective on the Entry Date. By no later than 270 days after Entry Date, Alon shall submit complete applications, amendments and/or supplements to TCEQ to incorporate those Surviving Consent Decree Obligations identified in Paragraph 148 that are effective as of Entry Date into federally-enforceable minor or major new source review permits or other permits (other than Title V permits) that will ensure that the underlying emission limit or standard survives the termination of this Consent Decree. Following submission of the complete permit applications, amendments, or supplements, Alon shall cooperate with TCEQ by promptly submitting to the applicable state/local agency all available information that TCEQ seeks following its receipt of the permit materials. Upon issuance of such permits or in conjunction with such permitting, Alon shall file any applications necessary to incorporate the requirements of those permits into the Title V permit.

145. Emission Limits and Standards Effective After Date of Entry. As soon as practicable, but in no event later than 270 days after the effective date or establishment of any



Surviving Consent Decree Obligation that becomes effective after the Entry Date, Alon shall submit applications to TCEQ to incorporate those Surviving Consent Decree Obligations into federally-enforceable minor or major new source review permits or other permits (other than Title V permits) that will ensure that the emission limits and standards shall survive the termination of this Consent Decree. Following submission of the complete application, Alon shall cooperate with TCEQ by promptly submitting to TCEQ all available information that the applicable state/local agency seeks following its receipt of the permit materials. Upon issuance of such permits or in conjunction with such permitting, Alon shall file any applications necessary to incorporate the requirements of those permits into the Title V permit.

146. Mechanism for Title V Incorporation. The Parties agree that the incorporation of any emission limits or other requirements of this Consent Decree into Title V permits shall be in accordance with state Title V rules, including any amendment provision approved as not inconsistent with 40 C.F.R. § 70.7(d), where allowed by state law.

147. Obtaining Construction Permits. Alon agrees to use its 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 set forth in Section V and Section VIII. To the extent that Alon must submit permit applications for construction or installation to TCEQ, Alon shall cooperate with TCEQ by promptly submitting to the applicable state/local agency all available information that tTCEQ seeks following its receipt of the permit application.

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

a. Emissions Limits and Standards. The following Consent Decree limits, standards and requirements shall constitute the only Surviving Consent Decree Obligations that are required by this Consent Decree to be incorporated into the permits identified in Paragraphs 144 and 145:

i. Paragraphs 15, 16 and 17 (FCCU NO<sub>x</sub> Emissions Limits). “FCCU NO<sub>x</sub> Emissions Limits” shall mean:

- A. The FCCU shall comply with a NO<sub>x</sub> emissions limit of 20 ppmvd NO<sub>x</sub> on a 365-day rolling average basis and 40 ppmvd NO<sub>x</sub> on a 7-day rolling average basis, each at 0% O<sub>2</sub>. NO<sub>x</sub> emissions (a) caused by or attributable to the Startup, Shutdown, or Malfunction of the Big Spring Refinery FCCU and/or (b) during periods of Malfunction of the Big Spring Refinery FCCU’s NO<sub>x</sub> Control System shall not be used in determining compliance with the 7-day average NO<sub>x</sub> limits, provided that during such periods Alon implements good air pollution control practices to minimize NO<sub>x</sub> emissions.
- B. Alon shall use NO<sub>x</sub> and O<sub>2</sub> CEMS at the Big Spring Refinery FCCU to demonstrate compliance with these FCCU NO<sub>x</sub> Emission Limits. Alon shall install, certify, calibrate maintain and operate all NO<sub>x</sub> and O<sub>2</sub> CEMS in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F,

and the applicable performance specification test of 40 C.F.R.

Part 60 Appendix B.

ii. Paragraphs 19, 20 and 21 (Final FCCU SO<sub>2</sub> Emissions Limits).

“FCCU SO<sub>2</sub> Emissions Limits” shall mean:

- A. The FCCU shall comply with SO<sub>2</sub> emission limits of 25 ppmvd at 0% O<sub>2</sub> on a 365-day rolling-average basis and 50 ppmvd at 0% O<sub>2</sub> on a 7-day rolling-average basis. SO<sub>2</sub> emissions during periods of Startup, Shutdown or Malfunction of the FCCU or Big Spring FCCU’s Wet Gas Scrubber (or other technology selected by Alon under Paragraph 19.b or 19.c, if installed) shall not be used in determining compliance with the 7-day average SO<sub>2</sub> emissions limit, provided that during such periods Alon implements good air pollution control practices to minimize SO<sub>2</sub> emissions.
- B. Alon shall use SO<sub>2</sub> and O<sub>2</sub> CEMS at the Big Spring Refinery FCCU to monitor performance and to report compliance with these FCCU SO<sub>2</sub> Emissions Limits. Alon shall install, certify, calibrate, maintain and operate all SO<sub>2</sub> and O<sub>2</sub> CEMS in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

iii. Paragraphs 22, 23 (if applicable as of the date of termination), 24 and 25 (if applicable as of the date of termination) (FCCU PM Emissions Limits).

“FCCU PM Emissions Limits” shall mean:

- A. The FCCU is subject to and shall comply with the NSPS regulations at 40 C.F.R. Part 60, Subparts A and J for PM.
- B. If Paragraph 23 is applicable as of date of termination, “FCCU PM Emissions Limits” shall mean: The FCCU shall comply with PM limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis, which shall apply during all periods of operation, except during periods of Startup or Shutdown of the FCCU. During periods of Startup or Shutdown of the FCCU, Alon shall maintain the inlet velocity to the primary internal cyclones of the FCCU catalyst regenerator at or above 20 feet per second.
- C. If applicable under Paragraph 25 as of the date of termination, Alon shall follow the test methods specified in 40 C.F.R. § 63.1571(a)(5) (Table 4), to measure PM emissions from the Big Spring Refinery FCCU and perform stack testing on the schedule provided by 40 C.F.R. § 63.1571(a)(5).

iv. Paragraphs 26, 27 (if applicable as of the date of termination), 28 and 29 (FCCU CO Emissions Limits). “FCCU CO Emissions Limits” shall mean:

- A. The FCCU is subject to and shall comply with the NSPS regulations at 40 C.F.R. Part 60, Subparts A and J for CO.
- B. If Paragraph 27 is applicable as of the date of termination, the FCCU shall comply with a CO limit of 100 ppmvd on a 365-day rolling-average basis at 0% O<sub>2</sub>, except during periods of Startup or Shutdown of the FCCU. During periods of Startup or Shutdown of the FCCU, the O<sub>2</sub> concentration in the exhaust gas from the FCCU catalyst regenerator shall be maintained at or above 1 volume percent (dry basis).

v. Paragraphs 30 and 31 (NSPS Subpart A and J (or Ja) Applicability for FCCU, Opacity Monitoring). “NSPS Subpart A and J Applicability for FCCU” shall mean:

- A. The FCCU is an “affected facility” subject to 40 C.F.R. Parts 60, Subparts A and J.
- B. If prior to termination the FCCU becomes an “affected facility” subject to NSPS Subpart Ja for a listed pollutant, then “NSPS Subpart A and Ja Applicability for FCCU” shall mean: The FCCU shall be subject to and shall comply with 40 C.F.R. Parts 60, Subparts A and Ja, with respect to the applicable listed pollutant.
- C. “Opacity Monitoring” shall mean: Alon will calibrate, maintain, and operation a COMS to monitor opacity at the FCCU, in accordance with 40 C.F.R. 60.11, 60.13 and Part 60

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Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. If Alon installs a Wet Gas Scrubber to achieve compliance with the Final SO<sub>2</sub> Emissions Limits, Alon will comply with the EPA-approved alternative monitoring plan approved for monitoring opacity at the FCCU. The alternative monitoring plan shall be included in the permit.

- vi. Paragraphs 35.b, 41 and 42 (Final NO<sub>x</sub> Heater and Boiler Emission Limits). “Final NO<sub>x</sub> Heater and Boiler Emission Limits” shall mean:
  - A. The numeric NO<sub>x</sub> emission limits for each of the Covered Heaters and Boilers that Alon has included in its demonstration that it meets a refinery-wide weighted average for NO<sub>x</sub> emissions of no greater than 0.040 lbs/mmBTU (as a 365-day rolling average if monitored by CEMS, or as a 3-hour average if monitored by stack tests). These limits shall apply at all times.
  - B. For Covered Heaters and Boilers with a heat input capacity of 100 mmBTU or greater that Alon has included in its demonstration that it meets a refinery-wide weighted average for NO<sub>x</sub> emissions of no greater than 0.040 lbs/mmBTU, Alon shall monitor using a CEMS. Alon shall certify, calibrate, maintain, and operate the CEMS in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) 40 C.F.R. Part 60, Appendices A

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and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B.

vii. Paragraphs 43.a, 43.b or 43.c (as applicable) and 44.a (NSPS for Heaters and Boilers and Fuel Oil Burning Limits). “NSPS Applicability for Heaters and Boilers” shall mean:

A. Each heater and boiler listed in Appendix A is an “affected facility” subject to 40 C.F.R. Parts 60, Subparts A and J (or Subpart Ja), as specified in Appendix A; and (if applicable) any heater and boiler listed in Appendix A as a Subpart J “affected facility” becomes an affected facility subject to NSPS Subpart Ja prior to termination.

B. “Fuel Oil Burning Limits” shall mean: Alon shall not burn Fuel Oil in any heater or boiler at the refinery except during periods of Natural Gas Curtailment or operator training. “Fuel Oil” means any liquid fossil fuel with a sulfur content greater than 0.05% by weight. Nothing herein is intended to limit, or shall be interpreted as limiting, the use of Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance. “Torch Oil” means the FCCU feedstock or light cycle oil that is combusted in the FCCU regenerator.

viii. Paragraph 45 and 46 (NSPS for SRP) and Paragraphs 53-54 (Root Cause Investigation and Corrective Action as to Tail Gas Incidents).

- A. “NSPS for SRP” shall mean:
1. The SRP is an affected facility and is subject to and shall comply with the requirements of NSPS Subparts A and J (or Subparts A and Ja, if applicable pursuant to Paragraph 45.e), including all monitoring, recordkeeping, reporting and operating requirements.
  2. Alon shall route all sulfur pit gases so that sulfur pit gases are eliminated, or included and monitored as part of the SRP’s emissions subject to the NSPS Subpart J limit for SO<sub>2</sub>, 40 C.F.R. § 60.104(a)(2), or, if applicable, the NSPS Subpart Ja limit for SO<sub>2</sub>, 40 C.F.R. § 60.102a(f)(1).
- B. “Root Cause Investigation and Corrective Action as to Paragraph 14.tt(ii) TG Incident” shall mean:
1. In response to any Paragraph 14.tt(ii) TG Incident, Alon shall perform a detailed analysis that sets forth the Root Cause of Causes and all contributing causes of that Paragraph 14.tt(ii) TG Incident, to the extent determinable; and analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Paragraph 14.tt(ii) TG Incident resulting from the same Root Cause or contributing causes in the future. The analysis shall discuss all reasonable alternatives, if any, that are available, the probable effectiveness and cost of the alternatives, and

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whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation, and maintenance changes shall be evaluated. In response to any Paragraph 14.tt(ii) TG Incident, Alon shall take, as expeditiously as possible, 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 of Causes and all continuing causes of that Paragraph 14.tt(ii) TG Incident.

2. "Tail Gas" shall mean exhaust gas from a Claus train of an SRP and/or from a Tail Gas Unit section of an SRP. "Tail Gas Incident" means Tail Gas combusted in a thermal incinerator and results in emissions of 500 pounds or more of SO<sub>2</sub> in any 24-hour period. Only those time periods which are in excess of an SO<sub>2</sub> concentration of 250 ppm (rolling 12-hour average) shall be used to determine the amount of excess SO<sub>2</sub> emissions from the incinerator. When a Paragraph 14.tt(ii) TG Incident occurs within a twenty-four hour period at more than one thermal incinerator at the refinery, the quantities of sulfur dioxide emitted from each thermal incinerator shall be added together for purposes of determining whether there is one Paragraph 14.tt(ii) TG Incident unless the Root Causes of the Paragraph 14.tt(ii) TG

Incident at the various thermal incinerators are not related to each other. Alon shall use good engineering judgment and other monitoring data to estimate emissions during periods in which the SO2 CEMS has exceeded the range of the instrument or is out of service. "Root cause" shall mean the primary cause(s) of Paragraph 14.tt(ii) TG Incident(s) as determined through a process of investigation.

3. If NSPS Subparts A and Ja are applicable to the SRP at the time of termination pursuant to Paragraph 45.e, then "Root Cause Investigation and Corrective Action as to Paragraph 14.tt(ii) TG Incidents" shall mean the root cause and corrective action requirements of 40 C.F.R. Part 60, Subpart Ja, and shall not mean the requirements of Paragraph 148.a.viii.B.1 and B.2.

ix. Paragraphs 48 and 50 (NSPS for Flaring Devices). "NSPS for Flaring Devices" shall mean:

A. Alon shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction, implement good air pollution control practices to minimize emissions from the Northside Flare (F1), Southside Flare (F6), Crude Flare (F3), and HDS Reformer Flare (F4), in a manner consistent with and as required by 40 C.F.R. § 60.11(d). The Northside Flare (F1), Southside Flare (F6), Crude Flare (F3),

and HDS Reformer Flare (F4) are each an “affected facility” as that term is used in 40 C.F.R. Part 60, Subparts A and Ja, and Alon shall comply with all applicable requirements of 40 C.F.R. Part 60, Subparts A and Ja, including the H<sub>2</sub>S concentration requirements of 40 C.F.R. Part 60, Subpart Ja.

- x. Paragraph 47.a (PMO plan). “PMO Plan” shall mean:
  - A. The PMO Plan required by Paragraph 47, which Alon shall implement at all times, including periods of Startup, Shutdown and Malfunction of its SRP, consistent with the requirements of 40 C.F.R. § 60.11(d). The PMO Plan shall be referenced in the permit.

- xi. All of Section VI (Emission Credit Generation). “Emission Credit Generation” shall mean all of Paragraphs 149 and 150.

b. Optional Review of Draft Permit Application for Consistency with Consent Decree.

- i. By not later than 180 days prior to the date for submission of any permit application(s) to incorporate surviving emission limits and standards identified in this Paragraph 148 into federally-enforceable minor or major new source review permits or other permits (and, upon issuance of such permits or in conjunction with such permitting, into Title V permits), Alon may submit for EPA review and comment a draft of the permit application(s) containing the terms, conditions and other provisions to incorporate such surviving obligations. EPA’s review and comment is intended to assist efforts to submit permit application(s) to

the relevant permitting entity(s) that fully incorporate such surviving obligations; EPA does not warrant or guarantee by its review and comment on a *draft* permit application that Alon has met or will thereafter meet the requirement of Paragraph 254.e to show that, at the time of Termination of this Consent Decree, the *final* permit(s) once issued by the relevant permitting entity(s) accurately and fully incorporate the surviving Consent Decree obligations. In addition, such review by EPA is not pre-decisional or binding upon the relevant permitting entity(s), which may at its discretion require additional and/or more stringent terms and conditions than those required under this Consent Decree.

ii. If Alon elects to submit a draft permit application(s) for optional review under this subparagraph, Alon shall have 30 days from the date of receipt of EPA's comments in which to submit its permit application(s) to the relevant permitting entity(s), notwithstanding the deadline for submission of permit applications under Paragraph 144 (limits effective on the Date of Entry) or Paragraph 145 (limits effective after the Date of Entry), as applicable. The Parties may agree to a longer time period for submission of the permit application(s) to the relevant permitting entity(s) if needed to address questions or issues concerning EPA's review.

## **VI. EMISSION CREDIT GENERATION**

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

149. General Prohibition. Alon shall neither generate nor use any NO<sub>x</sub>, SO<sub>2</sub>, PM, or CO emissions reductions that are required by this Consent Decree as netting reductions; as

emissions offsets; to apply for, obtain, trade, or sell any emission reduction credits; or in determining whether a project would result in a significant emissions increase or significant net emissions increase in any PSD, major non-attainment, and/or minor New Source Review (“NSR”) permit or permit proceeding. Baseline actual emissions during any 24-month period selected by Defendant shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions had Defendant been complying with this Consent Decree during that 24-month period. Any plant-wide applicability limits (PALs) or PAL-like limits that apply to emissions units covered by this Consent Decree must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated as CD Emissions Reductions had Defendant been complying with this Consent Decree during such baseline period.

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

a. utilize or generate netting emissions reductions or emission offset credits from refinery units that are covered by this Consent Decree to the extent that the proposed netting emission reductions or emission offset credits represent the difference between the emissions limitations set forth in this Consent Decree for these refinery units and the more stringent control requirements that Alon may elect to accept for those refinery units in a permitting process;

b. utilize or generate emissions reductions or emission offset credits on refinery units that are not covered by this Consent Decree or reductions in pollutants not required by this Consent Decree;

c. utilize CD Emissions Reductions from heaters and boilers on which controls have been installed, provided that such reductions are not included in Alon's demonstration of compliance with the requirements of Paragraphs 35.a and 35.b of this Consent Decree; or

d. utilize CD Emission Reductions for the Refinery's compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and Non-Attainment New Source Review rules, but including, for example, RACT rule) that apply to the Refinery; provided, however, Alon shall not be allowed to trade or sell any CD Emissions Reductions.

## **VII. SUPPLEMENTAL ENVIRONMENTAL PROJECT AND ADDITIONAL INJUNCTIVE RELIEF**

### **A. SUPPLEMENTAL ENVIRONMENTAL PROJECT**

151. In accordance with the requirements set forth in this Section VII and with the schedule(s) set forth in Appendix C, Alon may carry out its responsibilities for the SEP(s) identified below directly or through contractors selected by it.

152. Alon shall complete the SEP required under this Consent Decree in accordance with the deadlines for the specific project components set forth in Appendix C. Upon completion of the SEP, Alon shall submit to EPA a cost report certified as accurate under penalty of perjury by a responsible corporate official.

153. With regard to the SEP, Alon certifies the truth and accuracy of each of the following:

a. That all cost information provided to EPA in connection with EPA's approval of the SEP is complete and accurate and that Alon in good faith estimates that the cost to implement the SEP is \$1.5 million dollars.

b. That, as of the date of executing this Consent Decree, Alon is not required to perform or develop the SEP by any federal, state or local law or regulation and is not required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum;

c. That the SEP is not a project that Alon was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Consent Decree;

d. That Alon has not received and will not receive credit for the SEP in any other enforcement action; and

e. That Alon will not receive any reimbursement for any portion of the SEP from any other person;

f. That for federal income tax purposes, Alon agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing the SEP; and

g. That Alon is not a party to any open federal financial assistance transaction that is funding or could fund the same activity as the SEP described in Appendix C.

154. Alon shall not receive emissions reductions resulting from the project set forth in Appendix C in any federal, state, or local emissions trading or early reduction program or a deduction from any federal, state, or local tax based on its participation in, performance of, or incurrence of costs related to the project set forth in Appendix C.

155. Alon shall include in each Report required by Section VIII a progress report for the SEP being performed under this Section including the following information with respect to such project:

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

156. Alon agrees that in any public statements regarding the SEP, Alon 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.

**B. OPTIONAL NSPS SUBPART QQQ AUDIT**

156A. Optional NSPS Subpart QQQ Audit. Alon may elect to perform an audit of compliance with the regulatory obligations promulgated at 40 C.F.R. Part 60, Subparts A and QQQ (“Subpart QQQ Audit”) at the Big Springs Refinery. Alon shall notify EPA in writing within one hundred eighty (180) days from the Date of Entry if it has elected to perform a Subpart QQQ Audit pursuant to this Paragraph.

- a. A Subpart QQQ Audit may cover all potential obligations from the effective date of Subpart QQQ through the date of the QQQ Audit, including, but not limited to: (1) potential failures to make required applicability determinations; (2)



potential failures to install proper control or monitoring equipment; (3) potential failures to undertake work practices; (4) potential failures to submit accurate and/or timely reports; and (5) noncompliance with the applicable requirements of 40 C.F.R. Part 60, Subpart A .

b. The Subpart QQQ Audit may be performed by either a qualified outside contractor or qualified internal staff.

c. The Subpart QQQ Audit must be completed within one (1) year of notification under this Paragraph. Alon shall submit a final written report of the Subpart QQQ Audit (the "Subpart QQQ Audit Report") to EPA within thirty (30) days of the Subpart QQQ Audit's completion.

d. The Subpart QQQ Audit Report shall: describe the processes, procedures, and methodology used to conduct the audit; clearly identify any violations or potential violations of 40 C.F.R. Part 60, Subpart QQQ discovered; describe any and all measures taken or to be taken to correct the disclosed violations; and provide details concerning the costs associated with such corrective action(s) and economic benefit(s) obtained by Alon.

e. The Subpart QQQ Audit Report shall be signed by the appropriate corporate official of Alon making the following certification:

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

f. Violations and potential violations reported in the Subpart QQQ Audit Report, and corrected by the date of the Subpart QQQ Audit Report or such other reasonable additional time as EPA allows, shall be deemed to satisfy the requirements of

EPA's Audit Policy. Within 90 days after EPA receives the Subpart QQQ Audit Report, EPA shall notify Alon in writing whether the QQQ Audit is consistent with this Paragraph 156A. If EPA notifies Alon that the QQQ Audit was not consistent with the requirements of Paragraph 156A, then Alon may correct the identified problems and re-submit the report for approval within 90 days, or invoke Dispute Resolution (Section XIV). Within 90 days after any re-submittal of the Subpart QQQ Audit Report, EPA shall finally approve or disapprove the QQQ Audit conducted by Alon. If EPA determines that the Subpart QQQ Audit is approved, EPA shall so notify Alon in writing, and Alon shall thereupon be released from liability for any claims for civil and administrative penalties with respect to all violations or potential violations of 40 C.F.R. Part 60, Subparts A and QQQ that are disclosed and corrected in accordance with this Paragraph, and contained in EPA's notification.

g. At the time it elects to undertake a Subpart QQQ Audit, Alon shall pay, pursuant to the Stipulated Penalty payment provisions of Part X of this Consent Decree, a stipulated penalty of \$75,000 covering any and all disclosed violations at the Big Spring Refinery. If EPA determines that Alon's economic benefit of non-compliance exceeds \$25,000, Alon shall pay an additional stipulated penalty equal to the difference between such economic benefit and \$25,000, within 30 days of receipt of EPA's written notification of its determination.

### **VIII. RECORDKEEPING AND REPORTING**

157. Alon shall retain all records required to be maintained in accordance with this Consent Decree for a period of five (5) years after their creation, or until Termination, whichever is longer, unless applicable regulations require the records to be maintained longer.

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158. Alon shall submit to EPA Semi-Annual Reports no later than August 31 of each year (covering the period from January 1 to June 30) and February 28 (covering the period from July 1 to December 31). The first Semi-Annual Report shall be due on the first reporting date (August 31 or February 28) after the Entry Date, *unless* the Entry Date falls 45 (forty-five) days or less before the first reporting date, in which case the first Semi-Annual Report shall be due on the next reporting due date.

159. All of Alon's Semi-Annual Reports shall contain, at a minimum, the following information:

- a. A progress report on the implementation of the requirements of Section V (Affirmative Relief) at the Big Spring Refinery;
- b. A summary of the emissions data that are specifically required by the reporting requirements of Section V of this Consent Decree for the six (6) month period covered by the report;
- c. A description of any problems anticipated with respect to meeting the requirements of Section V of this Consent Decree at the Big Spring Refinery;
- d. A progress report on the implementation of the requirements of Section VII (Supplemental Environmental Project) required by Paragraph 155, and upon completion of the SEP, the cost report required by Paragraph 152;
- e. Any additional items required by any other Paragraph of this Consent Decree to be submitted with a Semi-Annual Report;
  - i. Paragraph 25.a: PM testing results.
  - ii. Paragraph 37: Results of emissions testing required by Paragraph 41 and annual average CEMS data required by Paragraph 42.

- iii. Paragraph 41.d.: Any schedule changes regarding the de-rate or install of a NO<sub>x</sub> and O<sub>2</sub> CEMS for Crude Heater D.
  - iv. Paragraph 47: Changes to the PMO Plan related to minimizing Acid Gas Flaring and/or SO<sub>2</sub> emissions.
  - v. Paragraph 50.a.: Any schedule changes regarding the compliance plan and installation of all needed control(s) for the Northside Flare (F1).
  - vi. Paragraphs 53 and 63: Information required by 40 C.F.R. § 60.108a(d); flaring reports on Paragraph 14.tt(ii) TG Incidents and any supplemental reports if necessary; summary of 14.tt(ii) TG Incidents during 6-month reporting period.
  - vii. Paragraphs 106, 108, and 113: Benzene Reports.
  - viii. Paragraphs 127, 136, 139.c., 143, and Paragraph 2.c. of Appendix B: LDAR Requirement Reports.
- f. Any such additional matters that Alon believes should be brought to the attention of EPA; and
- g. An identification of each exceedance of an emission limit established by this Consent Decree that occurred during the previous semi-annual period, including, at a minimum, the following information:
- i. For emissions units monitored with CEMS:
    - (a) Total period where the emissions limit was exceeded, if applicable, expressed as a percentage of operating time for each calendar quarter;

(b) Where the operating unit has exceeded the emissions limit more than 1% of the total time of the calendar quarter, an identification of each averaging period that exceeded the limit by time and date, the actual emissions of that averaging period (in the units of the limit), and any identified cause for the exceedance (including startup, shutdown, maintenance or malfunction), and, if it was a malfunction, an explanation and any corrective actions taken;

(c) Total downtime of the CEMS, if applicable, expressed as a percentage of operating time for the calendar quarter;

(d) Where the CEMS downtime is greater than 5% of the total time in a calendar quarter for a unit, an identification of the periods of downtime by time and date, and any cause or causes of the downtime (including maintenance or malfunction), and if downtime was caused by a malfunction, an explanation of any corrective actions taken;

(e) If a report filed pursuant to another applicable legal requirement contains all of the information required by this subsection (i) in the same or a similar format, the requirements of this subsection (i) may be satisfied by attaching a copy of such report;

ii. For emissions limits monitored by stack testing:

(a) A summary of the results of the stack test in which the exceedance occurred;

(b) A copy of the full stack test report in which the exceedance occurred;

(c) If the stack test results already have been submitted, Alon need not resubmit them, but may instead reference the prior submission in the Semi-Annual Report (*e.g.*, date, sender, addressee, reason for submission).

160. In the Semi-Annual Report required to be submitted on August 31 of each year, a summary of annual emissions data for the prior calendar year shall be provided, including:

- a. NO<sub>x</sub> emissions in tons per year for each Covered Heater and Boiler;
- b. SO<sub>2</sub>, CO, and PM emissions in tons per year as a sum for all Covered Heaters and Boilers;
- c. NO<sub>x</sub>, SO<sub>2</sub>, CO, and PM emissions in tons per year for the FCCU;
- d. SO<sub>2</sub> emissions for the Sulfur Recovery Plant in tons per year;
- e. SO<sub>2</sub> emissions from all Acid Gas flaring Incidents and Tail Gas Incidents by each flare in tons per year; and
- f. NO<sub>x</sub>, SO<sub>2</sub>, CO, and PM emissions in tons per year as a sum for the Big Spring Refinery for all emission units not identified in (a) through (e) above that are required to be included in the Big Spring Refinery's annual emission summary; and
- g. For each of the estimates in (a-f) above, the basis for the emissions estimate or calculation (*i.e.* stack tests, CEMS, emission factor, etc.).
- h. To the extent that the required emissions summary data is available in other reports generated by Alon, such other reports can be attached, or the appropriate information can be extracted from such other reports and attached to this semi-annual report to satisfy this requirement.

161. The Semi-Annual Report shall be certified by: (i) the person responsible for environmental management and compliance for the Big Spring Refinery; or (ii) a person responsible for overseeing implementation of this Consent Decree for the Refinery, as follows:

I certify under penalty of law that this information related to the Refinery was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

### **IX. CIVIL PENALTY**

162. Civil Penalty. Within thirty (30) days of the Entry Date, Alon shall pay a civil penalty of \$456,250 to the United States.

163. 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 DOJ Case Number 90-5-2-1-07629/1 and the civil action case name and case number of this action in the Northern District of Texas. The costs of such EFT shall be the responsibility of Alon. Payment shall be made in accordance with instructions provided to Alon by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Texas. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Alon shall provide notice of payment, referencing DOJ Case Number 90-5-2-1-07629/1 and the civil action case name and case number to the Department of Justice and to EPA, as provided in Paragraph 248 (Notice).

164. Defendant shall not capitalize into inventory or basis nor take as a tax deduction any portion of the monies paid under Consent Decree Sections IX or X (Civil Penalty and Stipulated Penalties).

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165. Upon the Entry Date, 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.

#### **X. STIPULATED PENALTIES**

166. Generally.

a. Alon shall pay stipulated penalties to the United States for each failure by Alon to comply with the terms of this Consent Decree as provided herein. Stipulated penalties shall be calculated in the amounts specified in Section XI.

b. For those provisions where a stipulated penalty of either a fixed amount or 1.2 times the economic benefit of non-compliance is available, the decision of which alternative to seek shall rest exclusively within the discretion of the EPA. In no event shall any stipulated penalty assessed against Alon exceed \$37,500 (or any inflation-adjusted increase in that maximum penalty amount set pursuant to the Federal Civil Penalties Act of 1990, as amended by the Debt Collection Improvements Act of 1996) per day for any individual violation of this Consent Decree.

c. For the purposes of this Section XI, terms such as “per unit,” “per valve,” “per drain” and the like shall mean only each unit, each valve, or each drain that is in non-compliance with a specific Consent Decree requirement.

d. Where a single event triggers more than one stipulated penalty provision in this Consent Decree, Alon shall be liable for stipulated penalties calculated under only one stipulated penalty provision, as determined by EPA.



**A. Requirements for NO<sub>x</sub> Emission Reductions from the FCCU**

167. For failure to meet the final FCCU NO<sub>x</sub> Emissions Limits set forth in Paragraph 15: \$500 for each calendar day in a calendar quarter in which the 7-day rolling average exceeds the applicable limit; and \$2,000 for each calendar day in a calendar quarter in which the 365-day rolling average exceeds the applicable limit.

**B. Requirements for SO<sub>2</sub> Emission Reductions from the FCCU**

168. For failure to comply with any requirement of Paragraph 18 to use SO<sub>2</sub> reducing catalyst, 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
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$750
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

169. For failure to comply with the requirement of Paragraph 19 to install a Wet Gas Scrubber or other control technology by December 31, 2021, 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	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1500
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

170. For failure to meet the Final FCCU SO<sub>2</sub> Emissions Limits set forth in Paragraph 19: \$500 for each calendar day in a calendar quarter in which the specified 7-day rolling average exceeds the applicable limit; \$2,000 for each calendar day in a calendar quarter in which the specified 365-day rolling average exceeds the applicable limit.

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**C. Requirements for PM Emissions Reductions from the FCCU**

171. For failure to meet the FCCU PM Emissions limit set forth in Paragraph 22: \$1,500 for each calendar day in a calendar quarter during which the Big Spring Refinery exceeds the emission limit.

**D. Requirements for CO Emissions Reductions from the FCCU**

172. For failure to meet the FCCU CO Emissions Limit set forth in Paragraph 26: \$500 for each calendar day in a calendar quarter in which the rolling average exceeds the limit.

**E. Requirements Related to NSPS Applicability to FCCU Regenerator**

173. For failure to comply with NSPS Subparts A and J (or Subpart Ja, as applicable) requirements (other than monitoring) applicable to the FCCU catalyst regenerator as specified by Paragraph 30 per pollutant, 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	\$1,000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$2,000
Beyond 60 <sup>th</sup> day after deadline	\$3,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

**F. Requirements for NO<sub>x</sub> Emission Reductions from Covered Heaters and Boilers**

174. For each failure to meet the refinery-wide average NO<sub>x</sub> emission limit, as required by Paragraph 35.b, per day: \$500 for each calendar day in a calendar quarter during which emissions exceeded the applicable limit.

**G. Requirements for SO<sub>2</sub> Emission Reductions from Heaters, Boilers, and Other Fuel Gas Combustion Devices**

175. For burning any refinery fuel gas that contains H<sub>2</sub>S in excess of the applicable requirements of NSPS Subparts A and J (or Subpart Ja, as applicable) in any heater or boiler after the date on which the respective unit becomes an “affected facility” subject to NSPS

Subpart A and J (or Ja as applicable), in accordance with paragraph 43, per unit, per day in a calendar quarter:

<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	\$2,500
Beyond 30 <sup>th</sup> day	\$5,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

176. For burning Fuel Oil in a manner inconsistent with the requirements of Paragraph 44.a, per unit, 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	\$1,750
Beyond 30 <sup>th</sup> day	\$5,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

**H. Requirements for Sulfur Recovery Plant**

177. For failure to comply with NSPS Subparts A and J or Ja (but not monitoring) at the Sulfur Recovery Plant, as specified in Paragraph 45, 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	\$1,000
31 <sup>st</sup> through 60 <sup>th</sup> day	\$2,000
Over 60 days	\$3,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

178. For failure to route sulfur pit gases in accordance with the requirements of Paragraph 46, 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	\$1,000
31 <sup>st</sup> through 60 <sup>th</sup> day	\$1,750
Beyond 60 <sup>th</sup> day	\$4,000 or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

179. For a failure to submit and implement a Preventative Maintenance and Operations

Plan as specified in Paragraph 47.a, 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
31 <sup>st</sup> through 60 <sup>th</sup> day	\$1,500
Beyond 60 <sup>th</sup> day after deadline	\$2,000

**I. Requirements for Flaring Devices**

180. For failure to comply with applicable NSPS Subparts A and Ja requirements, including emission limits, at a Flaring Device, on the schedule specified in Paragraph 50, per day, per Flaring Device:

<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
31 <sup>st</sup> through 60 <sup>th</sup> day	\$1,500
Beyond 60 <sup>th</sup> day after deadline	\$2,000

**J. Requirements for Control of Paragraph 14.tt(ii) Tail Gas Incidents**

181. For Paragraph 14.tt(ii) Tail Gas Incidents for which Alon is liable under Subsection V.J:

<b>Tons Emitted in Paragraph 14.tt(ii) Tail Gas Incident:</b>	<b>Length of time from Commencement of Flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident to Termination of Flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident is 3 hours or less</b>	<b>Length of Time from Commencement of Flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident to Termination of Flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident is greater than 3 hours but less than or equal to 24 hours</b>	<b>Length of Time of Flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident is greater than 24 hours</b>
<b>5 Tons or less</b>	\$500 per Ton	\$750 per Ton	\$1,000 per Ton
<b>Greater than 5 Tons, but less than or equal to 15 Tons</b>	\$1,200 per Ton	\$1,800 per Ton	\$2,300 per Ton, up to, but not exceeding, \$27,500 in any one calendar day

<b>Greater than 15 Tons</b>	\$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
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For purposes of calculating stipulated penalties pursuant to this Paragraph, only one cell within the matrix shall apply. Thus, for example, for a Paragraph 14.tt(ii) Tail Gas 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 Paragraph 14.tt(ii) Tail Gas Flaring Incident, the flaring shall be deemed to commence at the time that the flaring triggers the initiation of a Paragraph 14.tt(ii) Tail Gas flaring Incident, and shall be deemed to terminate at the time of the termination of the last episode of flaring within the Paragraph 14.tt(ii) Tail Gas Flaring Incident. Thus, for example, for flaring within a Paragraph 14.tt(ii) Tail Gas Flaring Incident that (a) starts at 1:00 p.m. on Day 1 and ends at 1:30 p.m. on Day 1; (b) recommences at 4:00 p.m. on Day 1 and ends at 4:30 p.m. on Day 1; (c) recommences at 1 a.m. on Day 2 and ends at 1:30 a.m. on Day 2; and (d) for which no further Flaring occurs within the Flaring Incident, the flaring within the Paragraph 14.tt(ii) Tail Gas 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.

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

<u>Period of Non-Compliance</u>	<u>Penalty per day</u>
Days 1-30	\$750
Days 31-60	\$1,500

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Over 60 days \$3,000

183. For those corrective action(s) which Alon: (a) agrees to undertake following receipt of an objection by EPA pursuant to Paragraph 54.d; or (b) is required to undertake following dispute resolution, then, from the date of EPA's receipt of Alon's report under Paragraph 53 of this Consent Decree until the date that either: (a) a final agreement is reached between EPA and Alon regarding the corrective action; or (b) a court order regarding the corrective action is entered, Alon shall be liable for stipulated penalties as follows:

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

or

- b. 1.2 times the economic benefit resulting from Alon's failure to implement the corrective action(s).

184. For failure to complete any corrective action under Paragraph 54 of this Consent Decree in accordance with the schedule for such corrective action agreed to by Alon or imposed on Alon pursuant to the dispute resolution provisions of this Consent Decree (with any such extensions thereto as to which EPA and Alon may agree to in writing):

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

**K. [Reserved]**

185. Reserved.

Alon

L. Requirements for Benzene Waste NESHAP Program Enhancements

186.

a. For failure to complete the BWON Compliance Review and Verification Report as required by Paragraph 69: \$7,500 per month.

b. For failure to submit or implement a BWON compliance plan, if required by Paragraph 72, or for failure to certify compliance as required by Paragraph 75:

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

c. For failure to comply with the requirements set forth in Paragraphs 76-87 related to the use, monitoring, and replacement of carbon canisters: \$100 per incident of non-compliance, per day.

d. For failure to implement the training requirements of Paragraph 96-98; \$10,000 per quarter.

e. For failure to maintain, modify or develop an annual review program to identify new benzene waste streams as required by Paragraph 88: \$2,500 per month.

f. For failure to perform laboratory audits as required by Paragraphs 89-92: \$5,000 per month per audit.

g. For failure to submit or maintain any other plans or other deliverables required by Paragraphs 102-109: \$2,000 per deliverable.

h. For failure to conduct sampling in accordance with the sampling plans required by Paragraph 103: \$250 per week or \$15,000 per quarter, per stream, whichever is greater, but not to exceed \$75,000 per quarter.

Am

i. For failure to submit a Compliance Assurance Plan or to retain the third-party contractor required by Paragraphs 109 or 110: \$5,000 per month.

j. For failure to conduct monthly visual inspections of all Subpart FF water traps as required by Subparagraph 111.a: \$100 per drain not inspected;

k. For failure to monitor Subpart FF conservation vents as required by Subparagraph 111.c: \$100 per vent not monitored;

l. For failure to identify/mark segregated stormwater drains as required by Subparagraph 111.b: \$500 per month.

**M. Requirements for Leak Detection and Repair Program Enhancements**

187.

a. For failure to develop or submit an LDAR Program Description as required by Paragraphs 118: \$3,500 per week.

b. For failure to implement the training program specified in Paragraph 120: \$10,000 per month.

c. For failure to conduct any of the LDAR Audits described in Paragraphs 121-126: \$5,000 per month, per audit.

d. For failure to implement any actions necessary to correct non-compliance as required in Paragraph 127.

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



- e. For failure to perform monitoring utilizing the leak rate definitions as specified in Paragraphs 128: \$100 per component, but not greater than \$10,000 per month per process unit.
- f. For failure to perform LDAR monitoring at the frequency required by Paragraph 129: \$100 per component, but not greater than \$10,000 per month per unit.
- g. For failure to implement the “initial attempt” repair program set forth in Paragraph 128: \$100 per component, but not to exceed \$10,000 per month.
- h. For failure to implement the QA/QC procedures described in Paragraph 135: \$1,000 per incident, but not greater than \$10,000 per month.
- i. For failure to implement the maintenance tracking program required by Paragraph 138: \$3,500 per week.
- j. For failure to use dataloggers and/or electronic data collection devices or maintain electronic data as required by Paragraph 134: \$5,000 per month.
- k. For failure to conduct and keep records of the calibrations and the calibration drift assessments or re-monitor valves and pumps based on calibration drift assessments in Paragraph 140: \$100 per missed event.
- l. For failure to comply with the requirements for delay of repair set forth at Paragraph 141: \$5,000 per valve or pump, per incident of non-compliance.
- m. For failure to submit a written submission to EPA as required by Subsection V.M (except where a more specific stipulated penalty provision applies to a submission under this Subsection X.M: \$500 per week per submission).

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

o. For failure to install Certified Low-Emissions Valve or Certified Low-Emissions Valve Packing Technology for newly installed valves as required by Paragraph 139.b: \$100 per component, but not greater than \$10,000 per month per unit.

**N. Requirements to Incorporate Consent Decree Requirements into Federally-Enforceable Permits**

188. For each failure to submit an application as required by Paragraphs 144 and 145:

<u>Period of Non-Compliance</u>	<u>Penalty per day per Incident</u>
Days 1-30	\$800
Days 31-60	\$1,500
Over 60 Days	\$3,000

**O. Requirements for Monitoring, Recordkeeping and Reporting**

189. For failure to install, certify, calibrate, maintain and/or operate a CEMS or COMS as required by Paragraphs 17, 21, 29, 31 and 41, 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	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1,000
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.

190. For failure to conduct PM testing required by Paragraph 25:

<u>Period of Non-Compliance</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 after deadline	\$1,000.

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191. For failure to comply with NSPS Subparts A and J (or Subpart Ja, as applicable) monitoring requirements at the Sulfur Recovery Plant, as specified in Subparagraph 45.c, 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	\$500
Beyond 31 <sup>st</sup> day after deadline	\$1,500
Beyond 60 <sup>th</sup> day after deadline	\$2,000

192. Unless covered by a more specific stipulated penalty, for failure to submit reports as required by this Consent Decree, per report, 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	\$300
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1,000
Beyond 60 <sup>th</sup> day	\$2,000

193. For failure to submit any other written deliverable (unless a more specific stipulated penalty applies), per day, per deliverable:

<u>Period of Non-Compliance</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 after deadline	\$1,000

**P. Non-Compliance with any Consent Decree Requirement Not Specifically Identified.**

194. Alon shall pay a stipulated penalty for each violation of any term, condition, or requirement of this Consent Decree for which a specific stipulated penalty is not provided in this Section of \$200 per day per violation.

**Q. Requirements for Supplemental Environmental Project and Civil Penalties**

195. Requirements to Pay Civil Penalties. For failure to make any civil penalty payment required by Section IX of this Consent Decree, Alon shall be liable for \$10,000 per day, plus Interest on the amount overdue.

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196. For failure to timely complete implementation of the SEPs required under Section VII and Appendix C, 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	\$2,000, or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater.

197. Reserved.

198. Reserved.

199. Alon shall be liable for \$2,500 per day, and interest on the amount overdue at the rate specified in 28 U.S.C. § 1961(a), for failure to do either of the following within sixty (60) days after receipt of a written demand pursuant to Paragraph 166: (a) pay stipulated penalties as required by Paragraph 166 of this Consent Decree; or (b) place the amount of stipulated penalties demanded in escrow pursuant to Paragraph 201.

**R. Payment of Stipulated Penalties**

200. Stipulated penalties under this Section shall begin to accrue on the date after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. Alon shall pay stipulated penalties (as required under Paragraph 166) upon written demand by the United States no later than sixty (60) days after Alon receives such demand. Stipulated penalties shall be paid to the United States in the manner set forth in Section IX (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 United States 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. The United States may, in its unreviewable discretion, waive payment of any portion of stipulated penalties that may accrue under this Consent Decree.

**S. Stipulated Penalties Dispute**

201. Should Alon dispute the United States' demand for all or part of a stipulated penalty, it may avoid the imposition of a stipulated penalty for failure to pay a stipulated penalty under Paragraph 199 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 XIV within the time provided in Paragraph 200 for payment of stipulated penalties. If the dispute is thereafter resolved in Alon's favor, the escrowed amount plus accrued interest shall be returned to Alon; otherwise, the United States 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 reserves the right to pursue any other non-monetary remedies to which it is legally entitled, including but not limited to, injunctive relief for Alon's violations of this Consent Decree.

202. Plaintiff's Right to Offsets of Excess Tons. To the extent that any violation of this Consent Decree results in excess emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, or PM, nothing in this Consent Decree prevents the United States from seeking to obtain compensatory emissions reductions on or off-site in addition to injunctive relief or stipulated penalties.

203. Subject to the provisions of Section XVI of this Consent Decree (Effect of Settlement), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Alon's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Clean Air Act, Alon shall be allowed a credit, for any stipulated penalties paid, against any

statutory penalties imposed for such violation. The United States will not demand stipulated penalties for a Consent Decree violation if it has commenced litigation seeking penalties under the Clean Air Act for such violation. Notwithstanding the foregoing, the United States reserves all its rights to pursue, under the Consent Decree and/or outside of it, any other non-monetary remedies to which it is legally entitled, including but not limited to injunctive relief for violations of the Consent Decree.

#### **XI. INTEREST**

204. Commencing May 1, 2016, Alon shall be liable for Interest on any unpaid balance of the civil penalty specified in Section IX. After the date on which a payment of stipulated penalties is due, Alon shall be liable for Interest on any unpaid balance of stipulated penalties to be paid in accordance with Section X. 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 Section XI, 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 201 of the Consent Decree. Monies timely paid into an interest bearing escrow account shall not be considered to be an unpaid balance under this Section.

#### **XII. RIGHT OF ENTRY**

205. Any authorized representative of EPA, including independent contractors, upon presentation of credentials, shall have a right of entry upon the premises of the Refinery at any reasonable time for the purpose of monitoring compliance with the provisions of this Consent Decree, including inspecting plant equipment, and inspecting and copying all records maintained by Alon pursuant to the requirements of this Consent Decree or in the ordinary course of Alon's

business that are deemed necessary by EPA to verify compliance with this Consent Decree.

Alon may assert that certain documents, records, or other information otherwise subject to this Section XII are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Alon asserts such a privilege, it shall provide the following information about the documents withheld upon request of EPA: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Alon. However, no documents, records, data, or other information required to be created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege. Unless otherwise specified in this Consent Decree, Alon shall retain all records required to be maintained in accordance with this Consent Decree until Termination, unless applicable regulations require the records to be maintained longer. Nothing in this Consent Decree shall limit the authority of EPA to conduct tests, inspections, or other activities under any statutory or regulatory provisions.

### **XIII. FORCE MAJEURE**

206. Force Majeure Event. For purposes of this Consent Decree, a “Force Majeure Event” is any event or the nonoccurrence of any event arising from causes beyond the control of Alon, its contractors, or any entity controlled by Alon that delays or prevents the performance of any obligation under this Consent Decree despite Alon’s best efforts to fulfill the obligation. “Best efforts to fulfill the obligation” includes Alon’s using best efforts to anticipate any potential Force Majeure Event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent

possible. "Force Majeure" does not include Alon's financial inability to perform any obligation under this Consent Decree.

207. Notice. If any event occurs or has occurred or fails to occur that may delay performance of any obligation under this Consent Decree, Alon shall notify the United States orally or by electronic transmission within seven (7) business days and in writing no later than twenty (20) business days following the date Alon first knew that the event caused or may cause such delay or violation. In the written notice, Alon shall reference this Paragraph of this Consent Decree and describe the anticipated duration of the delay, the cause or causes of the delay, the schedule and measures Alon will implement to prevent or mitigate any delay, and Alon's rationale for attributing a delay or violation to a Force Majeure Event (if Alon is electing to claim force majeure). Alon shall be deemed to know of any circumstances which Alon or any entity controlled by Alon knew or should have known.

208. With respect to any compliance obligation under this Consent Decree that requires Alon to obtain a federal, state, or local permit or approval, a delay in the performance of such obligation by Alon resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, may form the basis for a claim of force majeure, provided that Alon has submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals.

209. Failure to Give Notice. If Alon fails to substantially and materially comply with the notice requirements of this Section, the United States may void Alon's claim for Force Majeure as to the specific event for which and the specific time during which Alon failed to comply with the notice requirements of this Section.

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210. Plaintiff's Response to a Force Majeure Claim. The United States shall respond in writing to Alon's claimed Force Majeure within sixty (60) days of the receipt of Alon's written force majeure notice. If the United States needs further information from Alon regarding claimed force majeure to make a decision, it will so notify Alon in writing within sixty (60) days of receipt of Alon's written force majeure notice. If the United States agrees that the delay or violation, or anticipated delay or violation has been or will be caused by a Force Majeure Event, the United States and Alon shall stipulate to an extension of deadline(s) for performance of the affected compliance requirement(s) for such time as is necessary to complete those requirements, or to the extent to which Alon may be relieved of stipulated penalties or other remedies provided under the terms of this Consent Decree. Such agreement shall be reduced to writing, and signed by the parties. If the agreement results in a material change to the terms of this Consent Decree, an appropriate modification shall be made pursuant to Paragraph 252 (Modification).

211. Disagreement. If the United States does not accept Alon's claim of Force Majeure or if the Parties cannot agree on the length of the delay actually caused by the Force Majeure Event, or the extent of relief required to address the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section XIV (Retention of Jurisdiction/Dispute Resolution) of this Consent Decree.

212. Burden of Proof. If Alon elects to invoke the dispute resolution procedures set forth in Section XIV (Retention of Jurisdiction/Dispute Resolution), it shall do so no later than 20 days after receipt of the United States' written response. In any dispute regarding Force Majeure, Alon shall bear the burden of proving by a preponderance of the evidence that any delay or anticipated delay in performance or any other violation of any requirement of this Consent Decree was caused by or will be caused by a Force Majeure Event. Alon shall also bear

the burden of proving that it gave the notice required by this Section, and the burden of proving that the duration of any delay(s) attributable to a Force Majeure event was or will be warranted under the circumstances. If Alon carries these burdens, the delay at issue shall be deemed not a violation by Alon of the affected obligation of this Consent Decree identified to EPA and the Court.

#### **XIV. RETENTION OF JURISDICTION/DISPUTE RESOLUTION**

213. 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) 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 Section XVII (Termination).

214. The dispute resolution procedure set forth in this Section XIV shall be available to resolve all disputes arising under this Consent Decree, except only as otherwise provided in Section XIII regarding force majeure, provided that the Party making such application has made a good faith attempt to resolve the matter with the other Party.

215. Dispute resolution shall be commenced by one of the Parties under the Consent Decree by giving written notice to another Party advising of a dispute pursuant to this Section XIV. 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 after the receipt of such notice.

216. 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 the representatives of the Parties, unless the Parties agree that this period should be extended. At any time following thirty (30) calendar days after the receipt of the notice of dispute, any Party may cease informal negotiations by giving written notice to the other Party.

217. Within thirty (30) calendar days of the date that informal negotiations cease pursuant to Paragraph 216 above, the United States shall provide Alon with a written summary of its position regarding the dispute. The position advanced by the United States shall be considered binding unless, within sixty (60) calendar days of Alon's receipt of the written summary of the United States' position, Alon files with the Court a petition which describes the nature of the dispute. The United States shall respond to the petition within forty-five (45) calendar days of the filing.

218. 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 XIV may be shortened upon written request or motion of one of the Parties to the dispute.

219. The Parties do not intend that the invocation of this Section XIV by a Party shall cause the Court to draw any inferences or establish any presumptions adverse to either Party as a result of invocation of this Section or their inability to reach agreement. 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 the time it took for the dispute to be resolved under dispute resolution. Alon shall be liable for stipulated

penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

## **XV. EFFECT OF SETTLEMENT**

220. Definitions. For purposes of this Section XV, the following definitions apply:

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

i. PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. §§ 52.21 and 51.166, as amended from time to time;

ii. “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); 40 C.F.R. Part 51, Appendix S; and 40 C.F.R. § 52.24, as amended from time to time;

iii. Any applicable federally-enforceable state, regional, or local laws or regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above; and

iv. Any Title V regulations or permit provisions that implement, adopt or incorporate the specific regulatory requirements identified above, as amended from time to time.

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

Subpart J and any applicable federally-enforceable state, regional, or local regulations or State Implementation Plan requirements that implement, adopt, or incorporate the specific federal regulatory requirements identified above;

c. “Applicable NSPS Subparts A and Ja Requirements” shall mean the standards, monitoring, testing, reporting and record keeping requirements found at 40 C.F.R. §§ 60.100a through 60.109a (Subpart Ja), relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart Ja and any applicable federally-enforceable state, regional, or local regulations or State Implementation Plan requirements that implement, adopt, or incorporate the specific federal regulatory requirements identified above.

d. “Benzene Waste NESHAP Requirements” shall mean the requirements imposed by the National Emission Standard for Benzene Waste Operations, 40 C.F.R. Part 61, subpart FF, promulgated pursuant to Section 112(e) of the Clean Air Act, 42 U.S.C. § 7412(e); and any applicable federally-enforceable state, regional, or local regulations or State Implementation Plan requirements that implement, adopt, or incorporate the Benzene Waste NESHAP.

e. “LDAR Requirements” shall mean the requirements relating to equipment in light liquid service and gas and/or vapor service set forth at 40 C.F.R. Part 60, Subparts GGG or GGGa (as applicable) promulgated pursuant to Sections 111 and 112 of the Clean Air Act; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H, and CC; and any applicable federally-enforceable regional, or local regulations or State

Implementation Plan requirements that implement, adopt or incorporate those federal regulations.

f. “Pre-Lodging” shall mean the dates prior to the Date of Lodging of this Consent Decree.

g. “Post-Lodging Compliance Dates” shall mean any dates in this Section XV after the Date of Lodging (and/or after the Entry Date). Post-Lodging Compliance Dates include certain dates (*e.g.*, “December 31, 2015”), after Lodging represented in terms of time after the Date of Lodging or the Entry Date (*e.g.*, “180 days after the Date of Lodging” or “180 days after the Entry Date”), 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 to be completed or an emission limit is required to be met under the applicable provisions of this Consent Decree.

221. 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 Alon to the United States for alleged violations of the Applicable NSR/PSD Requirements resulting from (1) construction or modification of the following units that occurred prior to the Date of Lodging of the Consent Decree; and (2) construction or modification of the following units that commenced prior to the Date of Lodging of the Consent Decree and continued up to the following dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
FCCU	SO <sub>2</sub>	January 1, 2022
	NO <sub>x</sub>	December 31, 2018
Covered Heaters and Boilers	NO <sub>x</sub>	December 31, 2016
	SO <sub>2</sub>	Date of Entry

All Other Heaters and  
Boilers

SO<sub>2</sub>

Date of Entry

222. Conditional Resolution of Liability for PM Emissions Under the Applicable NSR/PSD Requirements. With respect to emissions of PM from the Big Spring Refinery FCCU, if and when Alon accepts an emission limit of 0.5 pound PM per 1000 pounds of coke burned on a 3-hour average basis for the Big Spring Refinery FCCU pursuant to Paragraph 23 and demonstrates compliance by conducting a stack test representative of normal operating conditions for the FCCU, then all civil liability of Alon to the United States shall be resolved for alleged violations of the Applicable NSR/PSD Requirements relating to PM emissions at the Big Spring Refinery FCCU resulting from pre-Lodging construction or modification of the Big Spring Refinery FCCU through date of compliance with Paragraph 23.

223. Conditional Resolution of Liability for CO Emissions Under the Applicable NSR/PSD Requirements. With respect to emissions of CO from the Big Spring Refinery FCCU, if and when Alon accepts an emission limit at the Big Spring Refinery FCCU of 100 ppmvd CO on a 365-day rolling-average basis at 0% O<sub>2</sub> pursuant to Paragraph 27 and demonstrates compliance using CEMS at the Big Spring Refinery FCCU, then all civil liability of Alon to the United States shall be resolved for alleged violations of the Applicable NSR/PSD Requirements relating to CO emissions at the Big Spring Refinery FCCU resulting from pre-Lodging construction or modification of the Big Spring Refinery FCCU through date of compliance with Paragraph 27.

224. Reservation of Rights Regarding Applicable NSR/PSD Requirements: Resolution of Liability for Violations Continuing After the Date of Lodging Can Be Rendered Void.

Notwithstanding the resolution of liability in Paragraphs 221, 222 and 223, the resolution of liability by the United States to Alon for alleged 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 for a particular emissions unit if Alon materially fails to comply with the obligations and requirements of Subsections V.A through V.D (all FCCU affirmative relief), and V.F and V.G (all heater and boiler affirmative relief); provided, however, that the resolution of liability in Paragraphs 221, 222 and 223, shall not be rendered void if Alon remedies such material failure and pays any stipulated penalties due as a result of such material failure.

225. Exclusions from Resolution of Liability Regarding Applicable NSR/PSD

Requirements: Construction and/or Modification Not Covered by Paragraphs 221, 222 and 223.

Notwithstanding the resolution of liability in Paragraphs 221, 222 and 223, nothing in this Consent Decree precludes the United States from seeking from Alon injunctive relief, penalties, or other appropriate relief for violations by Alon of the Applicable NSR/PSD Requirements resulting from construction of modification that: (a) 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 (b) commences after the Date of Lodging of the Consent Decree for pollutants and units covered by this Consent Decree.

226. Evaluation of Applicable NSR/PSD Requirements Must Occur. Increases in emissions from units covered by this Consent Decree, where the increases result from the Post-Lodging construction or modification of any units within the Refinery are beyond the scope of the resolution of liability in Paragraphs 221, 222 and 223, and Alon must evaluate any such increases in accordance with the Applicable NSR/PSD Requirements.

227. Resolution of Liability Regarding Applicable NSPS Subparts A and J  
Requirements. With respect to emissions of the following pollutants from the following units,



entry of this Consent Decree shall resolve all civil liability of Alon to the United States for alleged violations of the Applicable NSPS Subparts A and J Requirements from the date that claims of the United States resulting from pre-Lodging construction or modification (including reconstruction) accrued up to the following Post-Lodging Compliance Dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
FCCU	SO <sub>2</sub> , PM (opacity), CO	Date of Entry
All Heaters and Boilers listed in Appendix A and All Other Fuel Gas Combustion Devices (other than flaring devices)	SO <sub>2</sub>	Date of Entry
Flaring Devices	SO <sub>2</sub>	Date of Entry
SRP (including sulfur pit)	SO <sub>2</sub>	Date of Entry

228. Resolution of Liability Regarding Applicable NSPS Subparts A and Ja Requirements. With respect to emissions of the following pollutants from the following units, entry of this Consent Decree shall resolve all civil liability of Alon to the United States for violations of the Applicable NSPS Subparts A and Ja Requirements from the date that claims of the United States resulting from pre-Lodging construction or modification (including reconstruction) accrued up to the following Post-Lodging Compliance Dates:

<u>Unit</u>	<u>Pollutant</u>	<u>Date</u>
Flaring Devices (except Northside Flare)	SO <sub>2</sub>	Date of Entry
Northside Flare	SO <sub>2</sub>	November 11, 2016 or Date specified in compliance plan and schedule submitted under Para. 50.a (as revised), whichever is later

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Fuel Gas Combustion Devices SO<sub>2</sub>, NO<sub>x</sub>  
Listed in Appendix A (as  
applicable)

Date of Entry

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

Requirements and Applicable NSPS Subparts A and Ja Requirements: Release for NSPS

Violations Occurring After the Entry Date Can Be Rendered Void. Notwithstanding the resolution of liability in Paragraphs 227 and 228, the resolution of liability by the United States to Alon for violations of any Applicable NSPS Subparts A and J Requirements and Applicable NSPS Subparts A and Ja Requirements that occurred between the Date of Lodging and the Post-Lodging Compliance Dates shall be rendered void if Alon materially fails to comply with the obligations and requirements of Subsections V.G, V.H, V.I, and V.J (SO<sub>2</sub> emission reductions from heaters and boilers and all other fuel gas combustion devices other than flares, all sulfur recovery plant operations, flaring devices, tail gas incidents, hydrocarbon incidents); provided, however, that the resolution of liability in Paragraphs 227 and 228 shall not be rendered void if Alon remedies such material failure and pays any stipulated penalties due as a result of such material failure.

230. 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.

230A. Conditional Resolution of NSPS Liability for Emissions From Refinery Wastewater Systems. If prior to termination Alon elects to conduct the optional NSPS Subpart QQQ audit pursuant to Paragraph 156A and pays the penalty required by Paragraph 156A.g, and

if EPA notifies Alon that the Subpart QQQ Audit is approved, then Alon is released from liability as provided in Paragraph 156A.f.

231. Resolution of Liability Regarding Benzene Waste NESHAP Requirements. Entry of this Consent Decree shall resolve the civil liability of Alon to the United States for alleged violations of Benzene Waste NESHAP Requirements at the Refinery that (a) commenced and ceased prior to the Entry Date; and/or (b) commenced prior to the Entry Date and continued past the Entry Date, provided that the events giving rise to such post-Entry violations are identified in the BWON Compliance Review and Verification Report required under Paragraph 69 and are corrected pursuant to the requirements of Paragraph 72.

232. Resolution of Liability Regarding LDAR Requirements. Entry of this Consent Decree shall resolve the civil liability of Alon to the United States for alleged violations of LDAR Requirements that (a) commenced and ceased prior to the Entry Date; and/or (b) commenced prior to the Entry Date and continued past the Entry Date, provided that the events giving rise to such post-Entry violations are identified in the LDAR Initial Audit Report required under Paragraphs 122 and are corrected pursuant to the requirements of Paragraph 127.

233. Reservation of Rights Regarding Benzene Waste NESHAP and LDAR Requirements. The releases of liability in paragraphs 231 and 232 shall be rendered void if Alon materially fails to comply with the corresponding requirements of Subsections V.L and V.M of this Consent Decree; provided, however, that the releases shall not be rendered void if Alon remedies such material failure and pays any stipulated penalties due as a result of such material failure. Notwithstanding the resolution of liability in Paragraphs 231 and 232, nothing in this Consent Decree precludes the United States from seeking from Alon civil penalties and/or injunctive relief and/or other equitable relief for violations by Alon for violations of the Benzene

Waste NESHAP Requirements or of the LDAR Requirements that commenced prior to the Entry Date and continued after the Entry Date if Alon fails to identify any such violation of Benzene Waste NESHAP Requirements in its BWON Compliance Review and Verification Report under Paragraph 69 by the date of submittal required by Paragraph 69 and/or fails to correct such violation as required by Paragraph 72, or if Alon fails to identify such violation of LDAR Requirements in its LDAR Initial Audit required under Paragraph 122 and/or fails to correct such violation as required by Paragraph 127.

234. Audit Policy. Nothing in this Consent Decree is intended to limit or disqualify Alon, 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 Alon discovers during the course of any investigation, audit, or enhanced monitoring that Alon is required to undertake pursuant to this Consent Decree.

235. Claim/Issue Preclusion. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, penalties, or other appropriate relief relating to Alon for alleged violations of the PSD/NSR, NSPS, NESHAP, and/or LDAR requirements, not identified in this Section XV of this Consent Decree and/or the Complaint:

a. Alon 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 Alon assert, or maintain, any other defenses based upon contention that the claims raised by the United States 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 Alon to assert that the claims are deemed resolved by virtue of this Section XV of the Consent Decree.

b. Except as set forth in Paragraph 235.a above, the United States 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 Alon of any interpretation or guidance issued by EPA related to the matters addressed in this Consent Decree.

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

#### **XVI. GENERAL PROVISIONS**

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

238. Permit Violations. Nothing in this Consent Decree shall be construed to prevent or limit the right of the United States to seek injunctive or monetary relief for violations of limits that have been incorporated into permits pursuant to this Consent Decree; provided, however,

that with respect to monetary relief, the United States 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).

239. Alternative Monitoring Plans. Where this Consent Decree permits or requires Alon to submit an alternative monitoring plan (“AMP”) to EPA for approval, Alon shall submit a complete application and shall comply with the proposed AMP pending EPA’s approval or disapproval of the application. If EPA disapproves a proposed AMP, Alon shall, according to EPA’s direction, either monitor in accordance with the applicable monitoring requirements or submit a revised AMP to EPA for approval within ninety (90) days of receiving notice of EPA’s disapproval. Such revised plan may include a revised alternative monitoring plan application, physical or operational changes to the equipment, or additional or different monitoring. If the revised monitoring plan is not approved by EPA, the monitoring in question shall be conducted in accordance with the applicable monitoring requirements.

240. Compliance with Certain Emission Limits. For the purposes of determining compliance with rolling-average limits required under this Consent Decree: (a) at least 365 days is required after the initial compliance date for an applicable 365-day rolling-average limit in order to have sufficient data to evaluate compliance with such 365-day rolling-average limit; and (b) at least 7 days is required after the initial compliance date for an applicable 7-day rolling-average limit in order to have sufficient data to evaluate compliance with a 7-day rolling-average limit. Accordingly: (a) each applicable 365-day rolling-average limit shall become enforceable commencing 365 days after the date set forth in this Consent Decree as the date by which Alon shall begin complying with such limit; and (b) each applicable 7-day rolling-average limit set out

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above shall become enforceable commencing 7 days after the date set forth in this Consent Decree as the date by which Alon shall begin complying with such limit.

241. Startup, Shutdown, Malfunction. Notwithstanding the provisions of this Consent Decree regarding Startup, Shutdown, and Malfunction, this Consent Decree does not exempt Alon from the requirements of state laws and regulations or from the requirements of any permits or plan approvals issued to Alon, as these laws, regulations, permits, and/or plan approvals may apply to Startups, Shutdowns, and Malfunctions.

242. Failure of Compliance. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Alon's complete compliance with the Consent Decree will result in future compliance with the provisions of the Clean Air Act, or any other federally applicable federal, state, or local law or regulation. Notwithstanding the review or approval by the United States of any plans, reports, policies or procedures formulated pursuant to the Consent Decree, Alon shall remain 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 XIII (Force Majeure).

243. Services of Process. Alon hereby agrees to accept service of process by mail with respect to all matters arising under or relating to the Consent Decree and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including, but not limited to, service of summons. The persons identified by Alon at Paragraph 248 (Notice) are authorized to accept service of process with respect to all matters arising under or relating to the Consent Decree. The Parties agree that Alon need not file an answer to the Complaint in this action unless or until this Court expressly declines to enter this Consent Decree.

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

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

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

247. Public Notice and Comment. The Parties 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.

248. Notice. Unless otherwise provided herein, notifications to or communications between the Parties shall be deemed submitted on the date they are postmarked. Unless submitted electronically as provided in this Paragraph, notifications and communications shall be sent by U.S. Mail, postage pre-paid, or private courier service, except for notices under Section



XIII (Force Majeure) and Section XIV (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 Alon shall be submitted as specified in this Consent Decree. 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. Where an addressee listed below has provided an e-mail address, Alon may submit to that person any reports, notifications, certifications, or other communications required by this Consent Decree electronically (other than submission of a permit application required by this Consent Decree, payment of penalties under Section IX or Section X, and notices under Section XII (Right of Entry), Section XIII (Force Majeure) and Section XIV (Dispute Resolution)) in lieu of submission by U.S. Mail. Electronic submissions shall be made in Adobe PDF (.pdf) format only, and are deemed submitted on the date they are transmitted electronically. Electronic submission of any communication does not relieve Alon of its obligations to sign and certify such communication in conformance with this Consent Decree or other applicable law. Any report, notification, certification, or other communication that cannot be submitted electronically shall be submitted in hard-copy as provided in this Paragraph. Where this Consent Decree requires that notices and submissions are to be made to the United States they shall be made to the United States Department of Justice and all of the designated EPA offices set forth below. Where this Consent Decree requires that notices and submissions shall be made to EPA, they need only be sent to the designated EPA offices set forth below. 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 and/or Alon 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, D.C. 20044-7611  
Reference Case No. 90-5-2-1-09157

**As to EPA only:**

Director, Air Enforcement Division  
Office of Civil Enforcement  
U.S. Environmental Protection Agency  
William Jefferson Clinton South Bldg.  
1200 Pennsylvania Avenue, N.W.  
Mail Code 2242-A  
Washington, D.C. 20460

and:

Director, Air Enforcement Division  
Office of Civil Enforcement  
U.S. Environmental Protection Agency  
c/o Matrix New World Engineering Inc.  
26 Columbia Turnpike, Suite 200  
Florham Park, NJ 07932-2213

and submitted electronically to:

csullivan@matrixworld.com

**EPA Region 6:**

Chief (6EN-AA)  
Air, Toxics, and Inspections Coordination Branch  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

and submitted electronically to:

R6CAACDDeliverables@epa.gov

with a "cc" to:

Diana L. Lundelius, Region 6 CAA Consent Decree Tracking Coordinator  
lundelius.diana@epa.gov

**As to Alon:**

Refinery Manager  
ALON USA LP  
PO Box 1311  
200 Refinery Road

Big Spring, TX 79720

Adolph Granato  
HSSE Manager  
ALON USA LP  
PO Box 1311  
200 Refinery Road  
Big Spring, TX 79720  
[Adolph.Granato@ALONUSA.com](mailto:Adolph.Granato@ALONUSA.com)

Alexandra Magill Bromer, Esq.  
Perkins Coie LLP  
700 13th Street, NW Suite 600  
Washington, DC 20005  
[abromer@perkinscoie.com](mailto:abromer@perkinscoie.com)

Any Party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address. In addition, the nature and frequency of reports required by this 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 EPA, but need not be filed with the Court to be effective.

249. Approvals. All EPA approvals or comments required under this Consent Decree shall be made in writing.

250. 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.*

251. Integration. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently

submitted and approved pursuant to this Decree, no other document, and no other representation, inducement, agreement, understanding or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

252. Consent Decree Modifications. Non-material modifications to this Consent Decree shall be in writing and shall be effective when signed by the United States and Alon. The United States will file non-material modifications with the Court on a periodic basis. For the purpose of this Paragraph, non-material modifications include, but are not limited to: (a) any modifications to the frequency of reporting obligations; and (b) any modifications to schedules that do not extend the date for compliance with emissions limitations. Material modifications to this Consent Decree shall be in writing, signed by the United States and Alon, and shall be effective upon approval by the Court.

253. Effect of Shutdown. Except as provided in Section V.F. (NO<sub>x</sub> Emissions Reductions from Covered Heaters and Boilers), the permanent shutdown of a unit and the surrender of all permits for that unit will be deemed to satisfy all requirements of this Consent Decree applicable to that unit on and after the later of: (a) the date of the shutdown of the unit; or (b) the date of the surrender of all permits. The permanent shutdown of the Refinery and the surrender of all air permits for the Refinery will be deemed to satisfy all requirements of this Consent Decree with respect to the shutdown Refinery on and after the later of: (a) the date of the shutdown of the Refinery; or (b) the date of surrender of all permits.

## **XVII. TERMINATION**

254. Prerequisites to Termination. This Consent Decree shall be subject to termination upon motion by Alon or the United States under the procedure identified in Paragraph 256. Prior

to either Party seeking termination, Alon shall have completed and satisfied all of the following requirements with respect to this Consent Decree:

- a. Installation of controls as specified in this Consent Decree;
- b. Substantial and material compliance with all provisions contained in this Consent Decree, which compliance may be established for specific parts of the Consent Decree in accordance with Paragraph 255 below;
- c. Payment of all penalties and other monetary obligations due under the terms of the Consent Decree; no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States;
- d. Completion of the SEP(s) required by Section VIII;
- e. Application for and receipt of permits incorporating the surviving emission limits and standards established under this Consent Decree and specifically described in Paragraph 148; and
- f. Operation for at least one year of each unit in substantial and material compliance with the emission limits established herein, and certification of substantial and material compliance for each unit within the first six (6) month period progress report following the conclusion of the compliance period.

255. Certification of Completion.

- a. Prior to moving for termination, Alon may certify completion of one or more of the following Subsections of the Consent Decree, provided that all of the related requirements have been satisfied:
  - i. Subsections V.A-E relating to FCCUs;
  - ii. Subsection, V.F. relating to Covered Heaters and Boilers;

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iii. Subsection V.G relating to Heaters, Boilers and Other Fuel Gas Combustion Devices;

iv. Subsection V.H relating to SRP;

v. Subsections V.I-J relating to Flaring;

vi. Subsection V.L relating to Benzene Waste;

vii. Subsection V.M. relating to LDAR; and

viii. Section VII.A relating to Supplemental Environmental Project.

b. After Alon concludes that any of the parts of the Consent Decree identified in this Paragraph 255.a have been completed, Alon may submit a written report to the Parties listed in Paragraph 248 (Notice) describing the activities undertaken and certifying that the applicable Sections have been completed in full satisfaction of the requirements of this Consent Decree, and that Alon is in substantial and material compliance with all of the other requirements of this Consent Decree. The report shall contain the following statement, signed by a responsible corporate official of Alon:

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

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

been completed in accordance with this Consent Decree, EPA will so certify in writing to Alon and that certification by EPA shall constitute the certification of completion of the applicable Sections for purposes of this Consent Decree. If EPA concludes that such requirements have not been fully complied with, EPA shall notify Alon as to the activities that must be undertaken to complete the applicable Section(s) of the Consent Decree, and Alon shall perform all activities described in the notice, subject to its right to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution).

d. Nothing in this Paragraph 255 shall preclude the United States from seeking stipulated penalties for a violation of the Consent Decree regardless of whether a Certification of Completion has been issued under Paragraph 255.c. In addition, nothing in Paragraph 255.c shall permit Alon to fail to implement any ongoing obligations under the Consent Decree regardless of whether a Certification of Completion has been issued.

256. Termination Procedure. At such time as Alon believes that it has satisfied the requirements for termination set forth in Paragraph 254, Alon shall certify such compliance and completion to the United States in writing as provided in Paragraph 248 (Notice). Unless, within 120 days of receipt of Alon's certification under this Paragraph, the United States objects in writing with specific reasons, Alon may move this Court for an order that this Consent Decree be terminated. If the United States objects to the certification by Alon under this Paragraph, then the matter shall be resolved in accordance with the dispute resolution provisions under Section XV (Retention of Jurisdiction/Dispute Resolution) of this Consent Decree. In such case, Alon shall bear the burden of proving that this Consent Decree should be terminated.

### **XVIII. SIGNATORIES**

Each undersigned representative of Defendant, the United States Environmental Protection Agency and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

Dated and entered this \_\_\_\_\_ day of \_\_\_\_\_, 2017.

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UNITED STATES DISTRICT JUDGE



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

**FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:**

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

\_\_\_\_\_  
SUSAN SHINKMAN  
Director, Office of Civil Enforcement  
United States Environmental Protection Agency  
Washington, D.C. 20460

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

\_\_\_\_\_  
JOHN FOGARTY  
Associate Director, Office of Civil Enforcement  
United States Environmental Protection Agency  
Washington, D.C. 20460

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

\_\_\_\_\_  
PHILLIP A. BROOKS  
Director, Air Enforcement Division  
Office of Civil Enforcement  
United States Environmental Protection Agency  
Washington, D.C. 20460

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

**FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6:**

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

\_\_\_\_\_  
RONALD CURRY

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

\_\_\_\_\_  
LORRAINE DIXON

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

**FOR DEFENDANT Alon USA, LP**

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

4/19/17



Alan P. Moret  
Interim Chief Executive Officer



Alexandra Magill Bromer  
Perkins Coie LLP  
700 13th Street NW  
Washington, DC 20005  
(202) 654-6218  
Counsel to Alon USA, LP



**APPENDIX A  
INITIAL INVENTORY – COVERED HEATERS AND BOILERS  
FOR THE BIG SPRING REFINERY**

Source Description	Source Type	Permit Emission Point Number (EPN)	Heat Input Capacity (mmBtu/hr)	Current NOx Emissions Rate (lb/mmBTU)	Final NOx Emissions Limit (lb/mmBTU)	Monitoring Method for Final Limit	NSPS Applicability - J or Ja (§43.a)
#23 Boiler*	Boiler	24STM23BLR	242.70	0.120	0.015	CEMS	Subpt J
#24 Boiler	Boiler	24STM24BLR	224.15	0.015	0.015	CEMS	Subpt Ja (NOx and SO <sub>2</sub> )
Crude Heater D	Heater	02CHRGDHTR	114.00	0.025	0.025	Performance tests (§41.b), if §41.d.i applies; or CEMS (§41.a) if §41.d.ii applies	Subpt J
Crude Heater A	Heater	02CHRGAHTR	88.20	0.040	0.040	Performance tests (§41.b)	Subpt J
Crude Heater B	Heater	02CHRGBHTR	88.20	0.040	0.040	Performance tests (§41.b)	Subpt J
Naphtha HDS Depent Reboiler	Heater	04DEC5HTR	78.00	0.035	0.035	Performance tests (§41.b)	Subpt Ja (NOx and SO <sub>2</sub> )
Reformer #2 Reheat	Heater	05CHRGHTR	62.90	0.100	0.100	Performance tests (§41.b)	Subpt J
Diesel Charge Heater	Heater	80CHRGHTR	59.00	0.120	0.120	Performance tests (§41.b)	Subpt J
Reformer Depent Reboiler	Heater	05DEC5HTR	58.00	0.035	0.035	Performance tests (§41.b)	Subpt Ja (NOx and SO <sub>2</sub> )
FCCU Preheater	Heater	06CHRGHTR	63.00	0.035	0.035	Performance tests (§41.b)	Subpt J
Big Vacuum Heater	Heater	02BGVCMHTR	47.31	0.040	0.040	Performance tests (§41.b)	Subpt J
Reformer Charge Heater	Heater	05CHRGHTR	46.58	0.100	0.100	Performance tests (§41.b)	Subpt J
Reformer #1 Reheat	Heater	05CHRGHTR	40.96	0.100	0.100	Performance tests (§41.b)	Subpt J

\*Install SCR For Final Controls

**APPENDIX B**  
**PROCESS AND FACTORS FOR “COMMERCIAL UNAVAILABILITY”**  
**OF LOW-EMISSIONS VALVE AND LOW-EMISSIONS PACKING**

Summary: This Appendix outlines a process to be followed and factors to be taken into consideration to establish that a Certified Low-Emissions Valve (“Low-E Valve”) or Certified Low-Emissions Packing (“Low-E Packing”) is not “commercially available” pursuant to Paragraph 139 of this Consent Decree. Factors and procedures other than those identified in this Appendix may also be utilized to establish that a Certified Low-E Valve or Certified Low-E Packing is not commercially available.

1. Factors. The following factors shall be taken in to account for determining the availability of safe and suitable Certified Low-E Valve or Certified Low-E Packing:

- (1) Valve type;
- (2) Valve service and operating conditions;
- (3) Type of refinery process equipment in which the valve is used;
- (4) Seal performance;
- (5) Service life;
- (6) Packing friction;
- (7) Temperature and pressure limitations; and
- (8) Retrofit applications (*e.g.*, re-piping or space limitations).

The following factors may also be relevant for consideration, depending on the process unit or equipment in use at the refinery:

- (9) Valve or valve packing specifications identified by the licensor of the process unit or equipment in use at the refinery (including components that are part of a design package by a specialty-equipment provider as part of a larger process unit); or
- (10) Valve or valve packing vendor or manufacturer recommendations for the relevant refinery unit and/or process unit components.

2. Process. The following procedure shall be followed for determining the availability of a Certified Low-E Valve or Certified Low-E Packing:

- a. Alon must contact a reasonable number of vendors of valves and valve packing technologies, taking into account the relevant factors identified above, prior to asserting a claim that Certified Low-E Valve or Certified Low-E Packing is not commercially available.

i. For purposes of this Consent Decree, a reasonable number of vendors shall mean at least three vendors of valves and three vendors of valve packing technologies;

ii. If fewer than three vendors of valve or valve packing technologies are contacted, the determination of whether such fewer number is reasonable for purposes of this Consent Decree shall be based on Factors (9) and/or (10) above, or on a demonstration that fewer than three vendors offer valves or valve packing technologies for the service and operating conditions of the valve to be replaced, in consideration of Factors (1) through (8) above, as applicable.

b. Alon shall obtain a written representation from each vendor contacted or equivalent documentation that the valve or valve packing does not meet the specifications for a Certified Low-E Valve or Certified Low-E Packing.

c. Alon shall prepare a written report fully explaining the basis for each claim that a valve or valve packing is not commercially available, to include all relevant documentation and other information supporting the claim. Such report shall also identify the commercially-available valve or packing technology that comes closest to meeting the requirements for a Certified Low-E Valve or Certified Low-E Packing that is selected and installed by Alon pursuant to Paragraph 139.a of this Consent Decree. Such report shall be included in the Semi-Annual Report required by Section VIII of this Consent Decree, for the period in which the valve or valve packing is replaced.

3. EPA Review of Claim of Commercial Unavailability. Upon discretionary review by EPA of any claim of commercial unavailability, if EPA disagrees that a valve or valve-packing technology is commercially unavailable, EPA shall notify Alon in writing, specifying the valve or valve packing EPA believes to be commercially available and the basis for its availability for the service and operating conditions of the valve. Following receipt by Alon of EPA's notice, the following shall apply:

a. Alon is not required to retrofit the valve or valve packing for which the unavailability claim was asserted (unless otherwise required to do so pursuant to some other provision of this Consent Decree).

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b. EPA's notification shall serve as notice to Alon of EPA's intent that a future claim of commercial unavailability will not be accepted for (a) the valve or valve packing that was the subject of the unavailability claim, or (b) for a valve or valve packing in the same or similar service, taking into account the factors identified in this Appendix. If Alon disagrees with EPA's notification, Alon and EPA may informally discuss the basis for the claim of commercial unavailability. EPA may thereafter revise its notification, if necessary.

c. If Alon makes a subsequent commercial unavailability claim for the same valve or valve packing (or valve or valve packing in the same or similar service) that was the subject of a prior unavailability claim which was not accepted by EPA, and such subsequent claim is also denied by EPA on the same basis as provided in EPA's prior notification, Alon shall retrofit the valve or valve packing with the commercially available valve or valve packing technology at the next unit turnaround.

d. Any disputes concerning EPA's notification to Alon of the commercial availability of a valve or valve packing technology in a particular application pursuant to Paragraph 3.c of this Appendix shall be addressed under the Dispute Resolution provisions in Section XV of this Consent Decree.

**APPENDIX C**  
**SUPPLEMENTAL ENVIRONMENTAL PROJECT DESCRIPTION AND SCHEDULE**

Alon shall satisfactorily complete the following Supplemental Environmental Project (“SEP”):

1. Description. Alon shall install Next Generation Ultra Low NOx Burners on the following heaters at the Big Spring Refinery:

<b>Heater (selected as of Date of Lodging)</b>	<b>Permit Emission Point Number (EPN)</b>	<b>Heat Input Capacity (mmBtu/hr) (current)</b>	<b>Number of ULNBs per Heater (estimated)</b>
Reformer #2 Reheat	05CHRGHTR	62.90	14
Reformer Charge Heater	05CHRGHTR	46.58	5
Reformer #1 Reheat	05CHRGHTR	40.96	9
Reformer #3	05CHRGHTR	25.50	7

A “Next Generation Ultra Low NOx Burner” or “ULNB” shall mean a burner that is designed to achieve a nitrogen oxides (“NOx”) emission rate of less than or equal to 0.020 lb NOx/mmBTU (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.020 lb NOx/mmBTU (HHV).

2. Environmental Benefit. Upon completion and implementation of this SEP, emissions of NOx from refinery heaters and boilers is estimated to be reduced by 47 to 64 tons per year, equivalent to a refinery-wide weighted average of approximately 0.029 lbs/mmBTU NOx.

3. Schedule. Alon shall complete implementation of this SEP by no later than December 31, 2019.

4. Cost. Alon shall spend not less than \$1.5 million dollars on the implementation of this SEP.

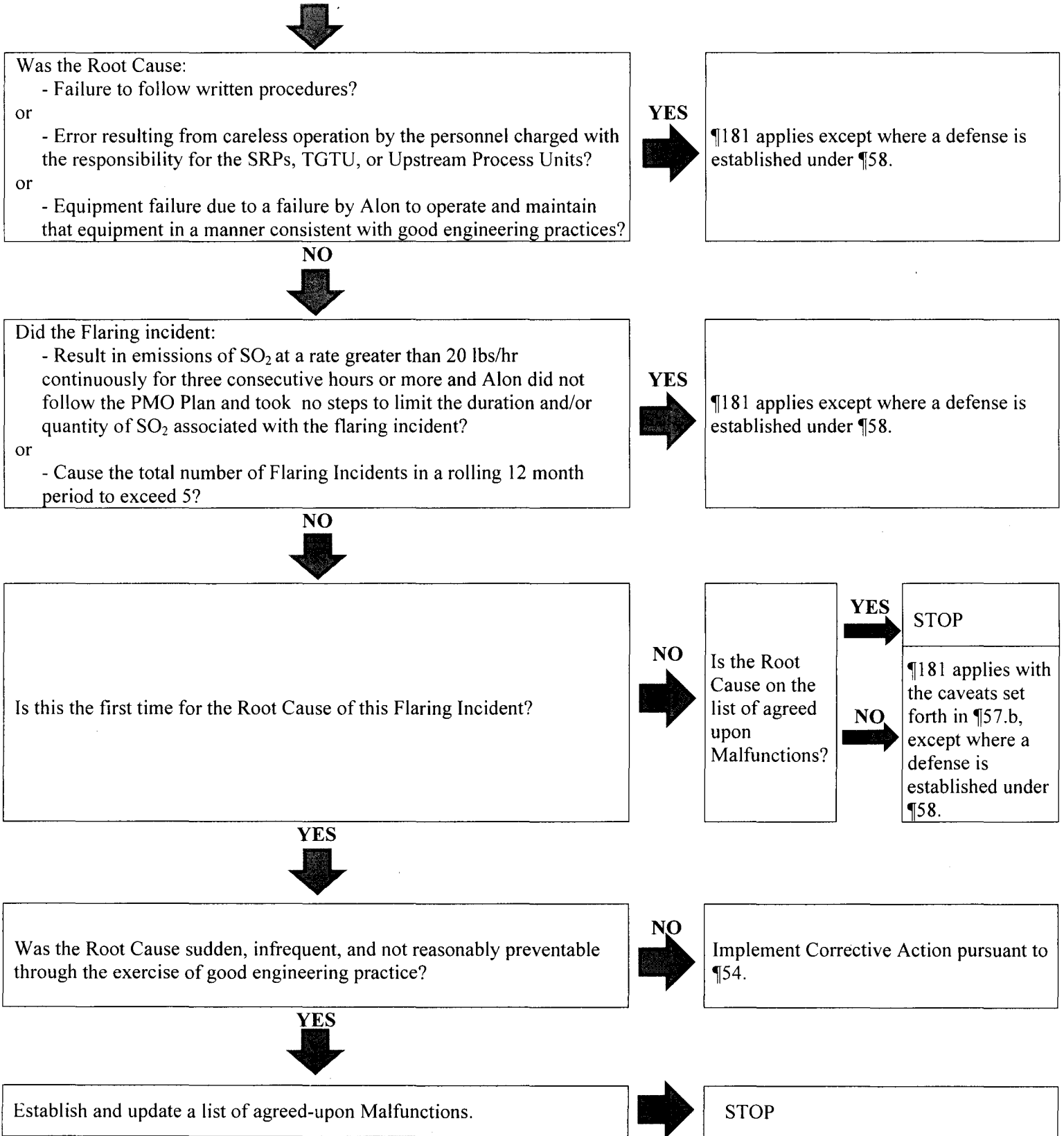


5. Implementation Plan. The information listed in Paragraph 1 of this Appendix C is Alon's plan, as of the Date of Lodging of the Consent Decree, to achieve the environmental benefit of this SEP, as described in Paragraph 2. In its implementation of this SEP, Alon may modify the information listed in Paragraph 1, such as installing a different number of ULNBs per heater, installing a different NOx emission reduction technology, or selecting different heaters to receive NOx emission reduction technology, *provided that* (a) the environmental benefit in Paragraph 2 (estimated 47-64 tpy NOx reduction) is fully achieved or exceeded, and (b) Alon submits an Implementation Plan identifying the change in ULNBs, heaters selected to be retrofit, or technology implemented. Such Implementation Plan cannot extend the date for compliance with the SEP.

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**APPENDIX D  
FLARING INCIDENT STIPULATED PENALTY FLOW CHART  
(LOGIC DIAGRAM FOR PARAGRAPHS 55-58)**

**ALL FLARING INCIDENTS**



*Alon*

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