IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA and LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY,	)	
Plaintiffs,	)	
v.	)	No. 2:18-cv-1404
SHELL CHEMICAL LP,	)	
Defendant.	)	

COMPLAINT

The United States of America ("United States"), by the authority of the Attorney General and through the undersigned attorneys, acting at the request and on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), and the Louisiana Department of Environmental Quality ("LDEQ"), file this Complaint and allege as follows:

NATURE OF ACTION

1. This is a civil action against Shell Chemical LP ("Shell") pursuant to the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 *et seq.*, the Louisiana Environmental Quality Act, La. R.S. 30:2001 *et seq.* ("LEQA"), regulations promulgated pursuant to those statutes, and operating permits that incorporate those requirements.

2. The United States brings this case pursuant to CAA Sections 113(b) and 167, 42 U.S.C. §§ 7413(b) and 7477, based on Shell's failure, in connection with the use of four flares

(the "Flares") at Shell's chemical plant located at 16122 River Road, Norco, in St. Charles Parish, Louisiana (the "Facility"), to: (i) obtain or operate in compliance with necessary CAA permits, (ii) monitor and operate the flares in conformance with design specifications, and (iii) follow good air pollution control practices. LDEQ brings this case pursuant to the LEQA based on these same failures.

3. Defendant's alleged violations of the CAA and the LEQA resulted in excess tons of illegal emissions of volatile organic compounds ("VOCs"), hazardous air pollutants ("HAPs"), and other pollutants into the air in Louisiana.

JURISDICTION AND VENUE

4. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b). The Court has personal jurisdiction over Defendant because Defendant is located and does business in this district.

5. This Court has supplemental jurisdiction over the state law claims asserted by LDEQ, pursuant to 28 U.S.C. § 1367, because those claims are so related to the claims alleged in the United States' action that they form part of the same case or controversy. Venue is proper in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391 (b) and (c) and 1395(a), because the alleged violations occurred and are occurring at the Facility, which is located in this District.

NOTICE

6. The United States provided LDEQ and Defendant with notice of Defendant's alleged violations, in accordance with Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1).

Notice of the commencement of this action was given to the State of Louisiana as required by Clean Air Act Section 113(b), 42 U.S.C. § 7413(b).

7. The 30-day period established in CAA Section 113(a), 42 U.S.C. § 7413(a), between the notice of violation provided by the United States and the commencement of this civil action has elapsed.

AUTHORITY

8. The United States Department of Justice has authority to bring this action on behalf of EPA under, *inter alia*, 28 U.S.C. §§ 516 and 519, and Section 305(a) of the CAA, 42 U.S.C. § 7605(a).

DEFENDANT

9. Defendant Shell is a limited partnership organized under the laws of Delaware and authorized to do business in Louisiana.

10. At all times pertinent to this suit, Shell has been the "owner or operator" of the Facility, as that term is defined in Sections 111(a)(5) and 112(a)(9) of the CAA, 42 U.S.C. §§ 7411(a) and 7412(a)(9).

11. Shell is a "person" within the meaning of Sections 113(b) and 302(e) of the CAA, 42 U.S.C. §§ 7413(b) and 7602(e), and applicable federal and state regulations promulgated pursuant to the CAA.

CAA STATUTORY AND REGULATORY BACKGROUND

12. The CAA establishes a regulatory scheme designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(1).

A. NATIONAL AMBIENT AIR QUALITY STANDARDS

1. General

13. Section 108(a) of the CAA, 42 U.S.C. § 7408(a), requires EPA to develop a list of each air pollutant that results from numerous or diverse mobile or stationary sources and that may endanger public health or welfare through its emissions. EPA must then issue air quality criteria for each such air pollutant.

14. Section 109(a) of the CAA, 42 U.S.C. § 7409, requires EPA to promulgate regulations establishing primary and secondary national ambient air quality standards ("NAAQS") for air pollutants for which air quality criteria have been issued pursuant to Section 108 of the CAA. Under Section 109(b) of the CAA, 42 U.S.C. § 7409(b), the primary NAAQS must be adequate to protect the public health with an adequate margin of safety. The secondary NAAQS must be adequate to protect the public welfare from known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air.

15. Pursuant to Sections 108 and 109 of the CAA, 42 U.S.C. §§ 7408 and 7409, EPA has listed and issued air quality criteria and NAAQS for six criteria pollutants: ground level ozone, particulate matter ("PM"), carbon monoxide ("CO"), lead, sulfur dioxide ("SO_2"), and nitrogen dioxide ("NO_2") (collectively, the "criteria pollutants"). The NAAQS for the criteria pollutants are set forth in 40 C.F.R. Part 50.

16. VOCs readily react, in the presence of sunlight, with nitrogen oxides ("NO_x"), forming the criteria pollutant ozone.

17. Pursuant to Section 107(d) of the CAA, 42 U.S.C. § 7407(d), each state is required to designate areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to

insufficient data. An area that meets the NAAQS for a particular pollutant is deemed an "attainment" area. An area that does not meet the NAAQS for a particular pollutant is deemed a "nonattainment" area. An area that cannot be classified due to insufficient data is termed "unclassifiable" but is considered "attainment" for new source review ("NSR") purposes. The states' air quality area designations (as approved by EPA) are identified at 40 C.F.R. Part 81.

18. At all times relevant to this Complaint, St. Charles Parish, where the Facility is located, has been identified as "in attainment/unclassifiable" for all criteria pollutants.

2. State Implementation Plans

19. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a plan that provides for the attainment and maintenance of the NAAQS in each air quality control region within each state. Once approved by EPA, each such plan constitutes a state's "applicable implementation plan" (*i.e.*, a state's SIP) within the meaning of Sections 113(b) and 302(q) of the CAA, 42 U.S.C. §§ 7413(b) and 7602(q). SIPs are enforceable by the respective states in which they are adopted and, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), by the United States.

20. Of relevance to this Complaint, Section 110(a)(2)(C) of the CAA, 42 U.S.C. § 7410(a)(2)(C), requires each SIP to include, *inter alia*, "regulation of the modification and construction of any stationary source . . . as necessary to assure that [NAAQS] are achieved, including a[n NSR] permit program," which includes the prevention of significant deterioration ("PSD") program required by Part C of Subchapter I of the CAA.

3. PSD Requirements

a. PSD Program in General

21. Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470–7492, sets forth NSR requirements for the prevention of significant deterioration of air quality in those areas designated as either attainment or unclassifiable for purposes of complying with the NAAQS. *See* 42 U.S.C. § 7470 (Purpose of PSD requirements). EPA's regulations that implement the PSD program are found at 40 C.F.R. § 52.21 (the "PSD regulations"). Together, these provisions are referred to herein as the "PSD program."

22. The core of the PSD program is the prohibition that "[n]o major emitting facility . . . may be constructed in any [attainment or unclassifiable] area" unless various requirements are met. 42 U.S.C. § 7475(a). These requirements include obtaining a PSD permit with emission limitations that are based upon "best available control technology" ("BACT") to control emissions. *Id*. The PSD regulations also require a demonstration that emissions from a newly constructed or modified facility will not contribute to a violation of a NAAQS. *See* 42 U.S.C. § 7475(a); 40 C.F.R. § 52.21(k).

23. Section 169(1) of the CAA, 42 U.S.C. § 7479(1), designates chemical process plants which emit or have the potential to emit one hundred tons per year ("TPY") or more of any air pollutant to be a "major emitting facility."

24. The PSD regulations define "construction" as "any physical change in or change in the method of operation (including fabrication, erection, installation, demolition, or modification) which would result in a change in actual emissions." 40 C.F.R. § 52.21(b)(8). "Construction" is also defined to include the "modification" (as defined in CAA Section 111(a), 42 U.S.C. § 7411(a)) of any source or facility. 42 U.S.C. § 7479(2)(C).

25. "Modification" is defined as "any change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted." 42 U.S.C. § 7411(a).

26. The PSD regulations define "major modification" as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emission increase of any pollutant subject to regulation under the Act." 40 C.F.R. § 52.21(b)(2)(i).

27. The PSD regulations set individual thresholds for each criteria pollutant that define whether a net emissions increase of a pollutant is "significant." *See* 40 C.F.R. § 52.21(b)(23)(i). For ozone, "significant" means a net emissions increase of, or the potential of a new source to emit, 40 TPY or more of VOCs or NOx. *Id*.

28. The PSD regulations define "net emissions increase" as "the amount by which the sum of the following exceeds zero: (a) any increase in actual emissions from a particular physical change or change in method of operation at a stationary source and (b) any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable." 40 C.F.R. § 52.21(b)(3).

29. In an attainment or unclassifiable area, a newly constructed stationary source or a major modification to an existing stationary source must install and operate BACT, as defined in 40 C.F.R. § 52.21(b)(12), for each pollutant subject to regulation under the CAA that it would have the potential to emit in significant amounts or for which the modification would result in a significant net emissions increase. 40 C.F.R. § 52.21(j)(2)-(3).

b. PSD Program in Louisiana

30. In addition to the requirement found in Section 110(a)(2)(c) of the CAA, 42 U.S.C. § 7410(a)(2)(C), Section 161 of the CAA, 42 U.S.C. § 7471, also requires that each SIP contain a PSD program. A state may comply with Section 161 by having EPA delegate authority to enforce the federal PSD regulations set forth at 40 C.F.R. § 52.21, or by having its own PSD regulations approved by EPA as part of its SIP. In order for EPA to approve a state PSD program, the state requirements must be at least as stringent as the requirements set forth at 40 C.F.R. § 51.166.

31. Louisiana has an approved PSD program. LA. ADMIN. CODE tit. 33, pt. III, § 509 (2016) (approved 80 Fed. Reg. 68,451, November 5, 2015). Louisiana is therefore authorized to issue and enforce PSD permits. In all respects relevant to this Complaint, the PSD regulations of Louisiana that are applicable to this action closely, if not exactly, mirror the federal PSD regulations codified at 40 C.F.R. § 52.21.

32. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), and 40 C.F.R. § 52.23, EPA may enforce violations of Louisiana's federally approved PSD program, as well as violations of permits issued pursuant to that program.

B. NEW SOURCE PERFORMANCE STANDARDS ("NSPS")

1. General

33. Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), requires EPA to publish and periodically revise a list of categories of stationary sources that, in EPA's judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.

34. Once a category is included on the list, Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(B), requires EPA to promulgate a federal standard of performance for new sources within the category, also known as an NSPS. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits an owner or operator of a new source from operating that source in violation of an NSPS after the effective date of the NSPS applicable to such source.

35. "New source" is defined in the CAA as any stationary source, the construction or modification of which is commenced after the publication of the NSPS regulations or proposed NSPS regulations applicable to such sources. 42 U.S.C. § 7411(a)(2).

36. "Stationary source" is defined as a building, structure, facility, or installation which emits or may emit any air pollutant. 42 U.S.C. § 7411(a)(3).

37. The NSPS are located at 40 C.F.R. Part 60.

2. Part 60, Subpart A: General

38. Pursuant to Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(B), EPA promulgated regulations that contain general provisions applicable to all NSPS source categories. 40 C.F.R. Part 60, Subpart A, §§ 60.1- 60.19 ("NSPS Subpart A").

39. Under NSPS Subpart A, the provisions of 40 C.F.R. Part 60 "apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the publication [in Part 60] of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility." 40 C.F.R. § 60.1.

40. "Affected facility" is defined as "any apparatus to which a standard is applicable." 40 C.F.R. § 60.2.

3. NSPS Subpart A: 40 C.F.R. § 60.11(d)

41. Within NSPS Subpart A, EPA promulgated a regulation that applies at all times to all affected facilities, including associated air pollution control equipment. Specifically, "at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions." 40 C.F.R. § 60.11(d).

4. NSPS Subpart A: 40 C.F.R. § 60.18 (Requirements Related to Flares Used as Control Devices)

42. NSPS Subpart A contains specific regulations that apply to flares that are used as control devices for facilities subject to an NSPS. 40 C.F.R. §§ 60.18(b)-(f).

43. Of relevance to this Complaint are the following requirements: for steam-assisted flares, the net heating value ("NHV") of the gas being combusted must be 300 British Thermal Units ("BTU") per standard cubic foot ("scf") or greater, 40 C.F.R. § 60.18(c)(3)(ii); for steam-assisted flares, certain exit velocity requirements must be met, 40 C.F.R. § 60.18(c)(4); and for all flares, the owner or operator must monitor the flare to ensure that it is operated and maintained in conformance with its design, 40 C.F.R. § 60.18(d).

5. Specific NSPS Standards: Part 60, Subparts VVa and NNN

44. Pursuant to Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), EPA has promulgated regulations for the following categories of stationary sources, among others:

SOURCE CATEGORY	NSPS REGULATION (40 C.F.R. Part 60)
Standards of Performance for Equipment Leaks of VOCs in the Synthetic Organic Chemicals Manufacturing Industry	Subpart VVa – 40 C.F.R. §§ 60.480a-60.489a
Standards of Performance for VOC Emissions from Synthetic Organic Chemicals Manufacturing Industry Distillation Operations	Subpart NNN – 40 C.F.R. §§ 60.660-60.668

45. 40 C.F.R. Part 60, Subparts VVa and NNN explicitly require that a flare used as a control device for affected facilities subject to these subparts must comply with the requirements of 40 C.F.R. § 60.18. *See* 40 C.F.R. § 60.482a-10a(d) and 40 C.F.R. § 60.662(b).

46. 40 C.F.R. Part 60, Subpart VVa explicitly requires that a flare used as a control device for an affected facility or facilities subject to this subpart must be monitored to ensure that it is operated and maintained in conformance with its design. *See* 40 C.F.R. § 60.482a-10a(e).

47. A flare used as a control device for an affected facility or facilities subject to 40 C.F.R. Part 60, Subparts VVa or NNN, must comply with the requirements of NSPS Subpart A, including 40 C.F.R. §§ 60.11(d) and 60.18.

C. NATIONAL EMISSION STANDARDS FOR HAPS

1. General: Section 112 prior to the 1990 CAA Amendments

48. CAA Section 112 contains requirements to control certain HAPs, such as benzene. *See* 42 U.S.C. § 7412 and 40 C.F.R. § 61.01(a). These requirements are known as "national emission standards for hazardous air pollutants" (NESHAPs). NESHAPs established before the CAA was amended in 1990 are promulgated at 40 C.F.R. Part 61.

2. Part 61, Subpart A: NESHAP General Standards

49. Pursuant to CAA Section 112, 42 U.S.C. § 7412, before it was amended on November 15, 1990 (the "1990 Amendments"), EPA promulgated general regulations that apply to all stationary sources of HAPs that are subject to the NESHAPs, regardless of their source category. *See* 40 C.F.R. § 61.01(c). These general NESHAP standards are found at 40 C.F.R. Part 61, Subpart A, §§ 61.01–61.19 ("NESHAP Subpart A").

50. Like NSPS Subpart A, NESHAP Subpart A requires that "the owner and operator of each stationary source [of HAPs] shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practices for minimizing emissions." 40 C.F.R. § 61.12(c).

3. Specific Categorical NESHAPs

51. Pursuant to CAA Section 112, as it existed before the 1990 Amendments, EPA promulgated the NESHAP for Benzene Waste Operations at 40 C.F.R. §§ 61.340 – 61.358 (Subpart FF).

52. Flares used as a control device for sources subject to 40 C.F.R. Part 61, Subpart FF must comply with the requirements of 40 C.F.R. § 60.18. *See* 40 C.F.R. § 61.349(a)(2)(iii) and (d).

53. Flares used as a control device for sources subject to 40 C.F.R. Part 61, Subpart FF must comply with the requirement that each flare be maintained and operated "in a manner consistent with good air pollution control practice for minimizing emissions." 40 C.F.R. § 61.12(c).

4. General: Section 112 after the 1990 CAA Amendments

54. Through the CAA Amendments of 1990, Congress replaced the then-existing

Section 112 and established a new program for the control of HAPs. H.R. Rep. No. 101-490, 101st Cong., 2d Sess., pt 1 at 324 (1990). The 1990 Amendments to the CAA did not alter the pre-1990 NESHAPs, and those regulations remain in effect unless specifically amended by a later regulation. *See* 40 C.F.R. § 63.1(a)(2).

55. With the 1990 amendments, Congress itself established a list of 188 HAPs believed to cause adverse health or environmental effects. 42 U.S.C. § 7412(b)(1).

56. Congress directed EPA to publish a list of all categories and subcategories of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(c).

57. "Major source" was and is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, in the aggregate, 10 TPY or more of any HAP or 25 TPY or more of any combination of HAPs. 42 U.S.C. § 7412(a)(1).

58. "Stationary source" was and is defined as any building, structure, facility, or installation that emits or may emit any air pollutant. 42 U.S.C. § 7412(a)(3) (stating that "stationary source" under Section 112(a) has the same meaning as that term has under Section 111(a) of the CAA, 42 U.S.C. § 7411(a)(3)).

59. A "category" of sources is a group of sources having some common features suggesting that they should be regulated in the same way and on the same schedule. 57 Fed. Reg. 31,576, 31,578 (July 16, 1992). A single stationary source can comprise multiple source categories. *Id*.

60. Congress directed EPA to promulgate regulations establishing emission standards for each category of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(d)(1). These emission standards must require the maximum degree of reduction in emissions of HAPs that EPA, taking

into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for the new or existing sources in the category or subcategory to which the emission standard applies. 42 U.S.C. § 7412(d)(2).

61. To the extent that it is not feasible to prescribe or enforce an emission standard for the control of a HAP, Congress authorized EPA to promulgate "design, equipment, work practice, or operational" standards, which are to be treated as emission standards. 42 U.S.C. § 7412(h).

62. The emission standards promulgated under Section 112 of the 1990 Amendments to the CAA, 42 U.S.C. § 7412, are known as the NESHAPs for Source Categories. They are commonly referred to as maximum achievable control technology ("MACT") standards. These standards are found in Part 63 of Title 40 of the Code of Federal Regulations.

63. After the effective date of any emission standard, limitation, or regulation promulgated pursuant to Section 112 of the CAA, no person may operate a source in violation of such standard, limitation, or regulation. 42 U.S.C. § 7412(i)(3).

5. Part 63, Subpart A: General

64. Pursuant to Section 112 of the CAA, 42 U.S.C. § 7412, as it existed after the 1990 CAA Amendments, EPA promulgated regulations that contain general provisions applicable to sources of HAPs that are subject to the MACT standards of Part 63 of Title 40 of the Code of Federal Regulations. 40 C.F.R. Part 63, Subpart A, §§ 63.1–63.16 ("MACT Subpart A").

65. Under MACT Subpart A, the provisions of 40 C.F.R. Part 63 "apply to the owner or operator of any stationary source that (i) emits or has the potential to emit any HAP listed in or pursuant to section 112(b) of the CAA; and (ii) is subject to any standard, limitation,

prohibition, or other federally enforceable requirement established pursuant to this part." 40 C.F.R. § 63.1(b).

66. Under MACT Subpart A, each relevant standard in Part 63 must identify explicitly whether each provision in MACT Subpart A is or is not applicable to sources subject to the specific relevant standard. 40 C.F.R. § 63.1(a)(4)(i).

6. MACT Subpart A: 40 C.F.R. § 63.6(e)(1)(i)

67. Within MACT Subpart A, EPA promulgated a requirement that corresponds to the "good air pollution control practices" requirement of NSPS Subpart A (*i.e.* 40 C.F.R. § 60.11(d)). Specifically, at all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 40 C.F.R. § 63.6(e)(1)(i).

7. MACT Subpart A: 40 C.F.R. § 63.11(b) (Requirements Related to Flares Used as Control Devices)

68. Within MACT Subpart A, EPA promulgated specific regulations that apply whenever a flare is used as a control device. 40 C.F.R. § 63.11(b).

69. Of relevance to this Complaint are the following requirements: flares shall be monitored to assure that they are operated and maintained in conformance with their designs, 40 C.F.R. § 63.11(b)(1); the NHV of the gas being combusted must be 300 BTU/scf or greater, 40 C.F.R. § 63.11(b)(6)(ii); certain exit velocity requirements must be met, 40 C.F.R. § 63.11(b)(7); and the owner or operator must monitor any flare to ensure that it is operated and maintained in conformance with its design, 40 C.F.R. § 63.11(b)(1).

8. Specific MACT Standards: Part 63, Subparts G, SS, and YY

70. Pursuant to CAA Air Act Section 112(c), 42 U.S.C. § 7412(c), as amended, EPA promulgated MACT regulations for the following categories of stationary sources of HAPs, among others:

SOURCE CATEGORY	MACT (40 C.F.R. Part 63)
National Emission Standards for Organic HAPs from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	Subpart G – 40 C.F.R. §§ 63.110-63.123
National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process	Subpart SS – 40 C.F.R. § 63.987-63.999
National Emission Standards for HAPs for Source Categories: Generic Maximum Achievable Control Technology Standards	Subpart YY – 40 C.F.R. §§ 63.1100-63.1114

71. 40 C.F.R. Part 63, Subpart G sets forth a group of related CAA requirements for stationary sources involved in synthetic organic chemical manufacturing.

72. Under Subpart G, when gas from covered process vents is controlled by a flare, the flare must comply with the general control requirements for flares found at 40 C.F.R.§ 63.11(b) of Subpart A. 40 C.F.R. § 63.113(a)(1)(i).

73. Pursuant to Section 112(c) of the CAA, 42 U.S.C. § 7412(c), EPA identified ethylene production as a source category of HAPs and promulgated 40 C.F.R. § 63.1103(e) (the "Ethylene MACT"). *See* 67 Fed. Reg. 46258 (July 12, 2002).

74. Of relevance to this Complaint, the affected sources that Subpart YY applies to are "ethylene process vents" and "equipment." 40 C.F.R. §§ 63.1103(e)(B), (D).

75. Under the Ethylene MACT, owners and operators of an ethylene process vent must reduce emissions of organic HAPs by 98 weight-percent, or reduce organic HAPs or total organic compounds ("TOCs") to a concentration of 20 ppmv, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices and meeting the requirements specified in 40 C.F.R. §§ 63.982(b) and (c)(2). 40 C.F.R. § 63.1103(e)(3) and Table 7 at (d).

76. 40 C.F.R. § 63.982(b) is found within Subpart SS of Part 63 of Title 40 of the Code of Federal Regulations. Subpart SS provides National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process. The provisions of Subpart SS apply only when another Subpart (such as Subpart YY) references them. 40 C.F.R. § 63.980.

77. Under 40 C.F.R. § 63.982(b), owners and operators that use a flare as a control device on a closed vent system must meet the requirements of 40 C.F.R. § 63.987.

78. Under 40 C.F.R. § 63.987, flares must meet the requirements of 40 C.F.R. § 63.11(b).

79. Under the Ethylene MACT, owners and operators of "equipment" must comply with the requirements of Subpart UU of Part 63. 40 C.F.R. § 63.1103(3) and Table 7 at (f).

80. Subpart UU is the National Emissions Standards for Equipment Leaks—Control Level 2 Standards. Under Subpart UU, owners and operators that use closed vent systems and flares to comply with Subpart UU must comply with Subpart SS. 40 C.F.R. § 63.1034(b)(2) and (2)(iii).

D. TITLE V

81. Title V of the CAA, 42 U.S.C. §§ 7661–7661f, establishes an operating permit program for certain sources, including major sources, sources subject to Sections 111 (NSPS program) or 112 (NESHAP/MACT program) of the CAA, or any source required to have an NSR permit. 42 U.S.C. § 7661a(a). The purpose of Title V is to ensure that all "applicable requirements" that a source is subject to under the CAA, including SIP requirements, are collected in one permit. 42 U.S.C. § 7661c(a).

82. Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), EPA promulgated regulations implementing the requirements of Title V and establishing the minimum elements of a Title V permit program to be administered by any EPA-approved state or local air pollution control agency. *See* 57 Fed. Reg. 32,250 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

83. Louisiana has an EPA-approved Title V program. *See* LAC 33:III.507 (approved at 60 Fed. Reg. 47,296 (Sep. 12, 1995)). Louisiana is therefore authorized to issue and enforce Title V permits. In all respects relevant to this Complaint, the Title V regulations of Louisiana closely mirror the federal Title V regulations codified at 40 C.F.R. Part 70.

84. Section 502(a) of the CAA (42 U.S.C. § 7661a(a)), the implementing regulations at 40 C.F.R. §§ 70.1(b) and 70.7(b), and the Title V permit program and regulations of Louisiana provide that, after the effective date of the state Title V permit program, no source subject to Title V may operate except in compliance with a Title V permit.

85. Section 503(c) of the CAA (42 U.S.C. § 7661b(c)), the implementing regulations at 40 C.F.R. § 70.5(a), and the Title V permit program and regulations of Louisiana provide that each owner and operator of a source subject to Title V permitting requirements must submit a

permit application. Among other things, the permit application must contain: (i) information sufficient to evaluate the relevant characteristics of the source and its permit application, and to determine all applicable air pollution control requirements (including any requirement to meet the applicable control technology requirements under the PSD program, and to comply with the applicable NSPS and/or NESHAP/MACT standards) *see* 40 C.F.R. § 70.5(a) and (c)(4); LAC 33:III.501.C, 507.H, and 517.B, D, and E; (ii) information that may be necessary to determine the applicability of other applicable requirements of the CAA, *see* 40 C.F.R. § 70.5(c)(5); (iii) a compliance plan to the permitting authority that describes how the source will comply or come into compliance with each applicable requirement of the CAA, *see* 42 U.S.C. § 7661b(b), 40 C.F.R. § 70.5(c)(8); *see also* LAC 33:III.501.C, 507.H, and 517.D and E; and (iv) a certification of compliance with all applicable requirements by a responsible official, *see* 40 C.F.R. § 70.5(c)(9). Under 40 C.F.R. § 70.5(b) and the Title V permit program and regulations of Louisiana, any applicant who fails to submit any relevant fact(s) or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such omitted facts or corrected information. *See also* LAC 33:III.501.C, and 517.C.

86. Section 504(a) of the CAA (42 U.S.C. § 7661c(a)), the implementing regulations at 40 C.F.R. § 70.6(a) and (c), and the Title V permit programs and regulations of Louisiana require each Title V permit to include, *inter alia*: (i) enforceable emission limitations and standards, (ii) a schedule of compliance, and (iii) such other conditions as are necessary to assure compliance with all applicable requirements of the CAA, including the requirements of the applicable SIP. *See* LAC 33:III.501.C and 507.A.

87. "Applicable requirements" are defined to include any relevant NSPS, NESHAP/MACT, and NSR/PSD requirements. *See* 40 C.F.R. § 70.2; *see also* LAC 33:III.502.A (defining "Federally Applicable Requirement").

88. CAA Section 502(a), 42 U.S.C. § 7661a(a), the implementing regulations at 40 C.F.R. §§ 70.1(b) and 70.7(b), and Louisiana's Title V permit program prohibit violations of any requirement of a Title V permit. *See* LAC 33:III.501.C and 507.B. No source subject to Title V may operate except in compliance with a Title V permit. *See id.*

89. Under Louisiana's operating permit program, no construction, modification, or operation of a facility that ultimately may result in an initiation or increase in emissions may begin until a Title V permit has been approved and issued by LDEQ. LAC 33:III.501.C, 507.B.2, and 517.A. Any such permit issued must incorporate all federally applicable requirements. *See* LAC 33:III.501.C, 507.A.3, and 507.B.2.

90. All terms and conditions of a Title V permit are enforceable by EPA. 42 U.S.C. § 7413(b); 40 C.F.R. § 70.6(b).

E. ENFORCEMENT OF THE CAA

91. Sections 113(a)(1) and (a)(3) of the CAA, 42 U.S.C. §§ 7413(a)(1) and (a)(3), authorize EPA to bring a civil action under Section 113(b), if EPA finds that any person is in violation of any requirement or prohibition of a SIP, the PSD program, the NSPS program, the NESHAP/MACT program, the Title V permit program, or a Title V permit.

92. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the Court to: (i) enjoin a violation, (ii) require compliance, (iii) assess and recover a civil penalty, and (iv) award any other appropriate relief for each violation.

93. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes civil penalties of up to $25,000 per day for each violation of the CAA.

94. The Civil Penalties Inflation Act of 1990, 28 U.S.C. § 2461 *et seq*., as amended by the Debt Collection Improvements Act of 1996, 31 U.S.C. § 3701 *et seq*., requires EPA to periodically adjust its civil penalties for inflation. For each violation that occurred between January 31, 1997, and March 15, 2004, inclusive, penalties of up to $27,500 per day may be assessed; for each violation that occurred between March 16, 2004, and January 12, 2009, inclusive, penalties of up to $32,500 per day may be assessed; for each violation that occurred between January 13, 2009 and November 2, 2015, inclusive, penalties of up to $37,500 per day may be assessed; and for each violation that occurred after November 2, 2015, penalties of up to $95,268 per day may be assessed, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 (note), as amended by 31 U.S.C. § 3701 (note), 40 C.F.R. § 19.4, and 82 Fed. Reg. 3633 (Jan. 12, 2017).

95. La. R.S. 30:2025(E)(1)(a) authorizes civil penalties "of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than [$32,500] for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than [$1,000,000]." Further, LDEQ is entitled to injunctive relief without the requisite showing of irreparable injury when the conduct sought to be restrained is unconstitutional or unlawful, i.e., when the conduct sought to be enjoined constitutes a direct

violation of a prohibitory law and/or a violation of a constitutional right. *Jurisich v. Jenkins*, 749 So. 2d 597 (La. 1999).

GENERAL ALLEGATIONS

96. A flare is a combustion device that uses an uncontrolled volume of ambient air to burn and dispose of gases generated by industrial manufacturing processes. Flares are used at chemical manufacturing processes like the Facility, petroleum refineries, and other types of facilities.

97. Gas generated by facility operations that is directed to a flare for combustion is known as "vent gas."

98. "Steam-assisted" flares inject steam ("assist-steam") piped to the flare tip to assist in combustion by promoting turbulence within a flare's flame.

99. Flares constitute "air pollution control equipment" within the meaning of 40 C.F.R. §§ 60.11(d), 61.12(c), and 63.6(e)(1)(i).

100. Flares constitute "combustion devices" and "control equipment" within the meaning of LAC Title 33, Part III, Chapter 1.

101. Flares are designed, in part, to achieve high combustion efficiency of VOCs and HAPs.

102. The steam-to-vent-gas ratio (sometimes referred to as "S:VG") is one operational parameter used to monitor flare operation and combustion efficiency. The NHV of the gases in the combustion zone of a flare ("combustion zone gas") is another operational parameter used to monitor flare operation and combustion efficiency.

103. As part of its design, a steam-assisted flare must be operated within a range of steam-to-vent gas ratios that, at one end of the range, avoids smoking due to an insufficient

steam-to-vent gas ratio and at the other end of the range, avoids incomplete combustion due to excessive steaming due to an overly high steam-to-vent gas ratio. Both insufficient and excessive steam-to-vent gas ratios reduce VOC combustion efficiency below a flare's designed efficiency.

104. Excessive levels of assist-steam will reduce combustion efficiency and may quench or snuff a flare's flame.

105. In order to monitor a steam-assisted flare to ensure that it is operated and maintained in conformance with its design: (i) the amount of vent gas and assist-steam flowing to the flare must be monitored, (ii) the ratio of the flows of vent gas to assist-steam must be calculated, and (iii) the flow of assist-steam must be sufficient and controlled to maintain a proper NHV.

106. Good air pollution control practices to minimize emissions from flares include *inter alia* combusting essentially all molecules of hydrocarbons (which include VOCs) and HAPs in the vent gas sent to a flare. In order to allow for complete combustion of these substances, vent gas must have sufficient NHV and oxygen.

107. For assisted flares, good air pollution control practices to minimize emissions from flares also require, *inter alia*, injecting assist-steam at a rate that maximizes flame stability and flare combustion efficiency.

108. In order to inject assist-steam at a rate that maximizes flame stability and flare combustion efficiency: (i) the amount of vent gas and assist-steam flowing to the flare must be monitored; (ii) the ratio of the flows of vent gas to assist-steam must be calculated, and (iii) the flow of assist-steam and supplemental gas must be subject to sufficient control to enable increasing or decreasing it in order to optimize the steam-to-vent gas ratio, maintain a sufficient NHV of the combustion zone gas, and maintain a high VOC combustion efficiency.

109. Defendant manufactures olefins, including ethylene, at the Facility. The Facility also produces other chemicals.

110. At all times relevant to the Complaint, the Facility has had a Title V permit that has been issued by Louisiana.

111. At all times relevant to the Complaint, the Flares have used assist-steam.

112. At all times relevant to the Complaint, the Facility has been a chemical process plant that has emitted or had the potential to emit at least 40 TPY of VOCs and/or NOx.

113. At all times relevant to the Complaint, the Facility has been a chemical process plant that has emitted or had the potential to emit at least 10 TPY or more of any individual HAP or 25 TPY or more of any combination of HAPs.

114. At all times relevant to the Complaint the Facility has met the definition of

a) "Major emitting facility," as defined by CAA Section 169(1), 42 U.S.C. § 7479(1), and the implementing NSR regulations;

b) "Major stationary source," as defined by 40 C.F.R. § 52.21(b)(1)(i)(a);

c) "Stationary source" as defined by 42 U.S.C. § 7411(a)(3) and the implementing NSPS regulations;

d) "Major source" of HAPs, as defined by 42 U.S.C. § 7412(a)(1) and the implementing NESHAP and MACT regulations; and

e) "Major source," as defined by 42 U.S.C. § 7661(a)(2) and the implementing CAA Title V regulations.

115. At all times relevant to the Complaint, the Facility has met the definitions in the federally approved Louisiana SIP that adopt, incorporate, and/or implement the programs and regulations listed in paragraph 114.

116. At all times relevant to this Complaint, the Facility has been subject to the Title V permitting requirements in 40 C.F.R. Part 70 and the federally approved Louisiana SIP.

117. At all times relevant to this Complaint, one or more of the Flares has been subject to the requirements of NSPS Subpart VVa. 40 C.F.R. § 60.482a-10a.

118. At all times relevant to this Complaint, Defendant has used one or more of the Flares as a control device to comply with provisions of NSPS Subpart VVa at the Facility. 40 C.F.R. § 60.482a-10a.

119. At all times relevant to this Complaint, one or more of the Flares has been subject to the requirements of NSPS Subpart NNN. 40 C.F.R. § 60.662(b).

120. At all times relevant to this Complaint, Defendant has owned and operated distillation units, which are affected facilities within the meaning of NSPS Subpart NNN, that produce one or more of the chemicals listed in 40 C.F.R. § 60.667 at the Facility. 40 C.F.R. § 60.660(a) and (b).

121. At all times relevant to this Complaint, Defendant has used one or more of the Flares to combust vent streams and emissions from distillation units at the Facility.

122. At all times relevant to this Complaint, one or more of the Flares has been subject to the requirements of 40 C.F.R. Part 61, Subpart FF. 40 C.F.R. § 61.349(a)(2)(iii) and (d).

123. At all times relevant to this Complaint, the Facility has been a chemical manufacturing plant within the meaning of 40 C.F.R. Part 61, Subpart FF. 40 C.F.R. § 61.341.

124. Chemical manufacturing plants as defined by 40 C.F.R. § 61.341, including the Facility, are affected sources within the meaning of 40 C.F.R. Part 61, Subpart FF. 40 C.F.R. § 61.340(a).

125. At all times relevant to this Complaint, Defendant has owned and operated at the Facility one or more process units that generate benzene-containing waste streams subject to the NESHAP for Benzene Waste Operations. 40 C.F.R. § 60.342(c).

126. At all times relevant to this Complaint, Defendant has used one or more of the Flares as a control device for the benzene-containing waste streams and process units subject to the NESHAP for Benzene Waste Operations at the Facility.

127. At all times relevant to this Complaint, one or more of the Flares has been subject to the requirements of 40 C.F.R. Part 63, Subpart G.

128. At all times relevant to this Complaint, Defendant has used one or more of the Flares as a control device for sources, process vents, and equipment subject to 40 C.F.R. Part 63, Subpart G. 40 C.F.R. Part 63.113(a)(1)(i) (Subpart G).

129. At all times relevant to this Complaint, one or more of the Flares has been subject to the requirements of 40 C.F.R. Part 63, Subpart YY.

130. At all times relevant to this Complaint, Defendant has owned and operated at the Facility ethylene process vents from continuous ethylene production unit operations, within the meaning of 40 C.F.R. § 63.1103(e)(2). These process vents are affected sources within the ethylene production source category regulated by 40 C.F.R. Part 63, Subpart YY. 40 C.F.R. §§ 63.1100(a), Table 1 and 63.1103(e)(1)(i)(B).

131. At all times relevant to this Complaint, Defendant has owned and operated equipment that contains or contacts organic HAPs, within the meaning of 40 C.F.R. § 63.1101, and is subject to 40 C.F.R. Part 63, Subpart YY. This equipment includes pumps, compressors, agitators, pressure relief devices, sampling collection systems, open-ended valves or lines, valves, connectors, and/or instrumentation systems in organic HAP service, as defined in 40 C.F.R. § 63.1103, for the ethylene production process unit(s) at the Facility. This equipment is an affected source regulated by 40 C.F.R. Part 63, Subpart YY. 40 C.F.R. § 63.1103(e)(1)(i)(D).

132. At all times relevant to this Complaint, Defendant has used one or more of the Flares as a control device for process vents and equipment at the Facility that are subject to 40 C.F.R. Part 63, Subpart YY. 40 C.F.R. § 63.1103(e), Table 7 (for process vents, cross-referencing to: 40 C.F.R. § 63.982(b) and, in turn, 40 C.F.R. § 63.987(a)) and (for equipment, cross-referencing to: 40 C.F.R. § 63.1034(b)(2)(iii) and, in turn, 40 C.F.R. § 63.987(a)).

133. At all times relevant to this Complaint, the Facility has been subject to a federally enforceable Title V operating permit requiring, among other things, that the Flares comply with the requirements of 40 C.F.R. §§ 60.11(d) and 61.12(c).

134. At all times relevant to this Complaint, the Facility has been subject to a federally enforceable Title V operating permit requiring, among other things, that the Flares comply with the requirements of 40 C.F.R. § 60.18; 40 C.F.R. Part 63 Subparts A, G, SS, and YY.

135. At all times relevant to this Complaint, the Facility has been subject to a federally enforceable Title V permit that has been issued pursuant to the Louisiana SIP.

FIRST CLAIM FOR RELIEF

Violation of NSR Requirements

136. Paragraphs 4-32, 84, and 91-115 are re-alleged and incorporated herein by reference.

137. At various times from 2009 to the present, Defendant "commenced construction" of one or more "major modification[s]," as defined in the CAA and the Louisiana SIP, at the Facility.

138. Defendant made physical changes and/or changes in the methods of operation to one or more of the flares and/or closed vent systems (also known as flare "headers") that transport gases from manufacturing process units to the Flares. These modifications include

changes to the flare stacks, flare tips, main flare headers, and/or process unit sub-headers.

139. One or more of these modifications resulted in a significant net emissions increase of VOCs and/or NO_x from one or more of the Flares.

140. Defendant did not apply for, obtain, or operate pursuant to a PSD permit for any of these modifications.

141. Defendant failed to comply with various requirements of the PSD regulations for VOCs and/or NO_x for the Facility, including, among other things, failing to: (i) install and operate BACT on the flare systems of each Flare; (ii) demonstrate that the emissions increases from the modifications would not cause or contribute to violations of air quality standards; and (iii) otherwise comply with the requirements of the PSD program and Louisiana's SIP.

142. Since the time the Defendant commenced construction of the major modifications alleged herein, Defendant has violated:

(a) 42 U.S.C. § 7475;

(b) 40 C.F.R. §§ 52.21(a)(2)(iii) and 52.21(j)-52.21(r)(5); and

(c) The federally enforceable Louisiana SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 142(a)-(c).

143. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

144. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a).

SECOND CLAIM FOR RELIEF

Violation of Title V Requirements for NSR Violations

145. Paragraphs 4-32, 81-110, 133-135, and 137-141 are re-alleged and incorporated herein by reference.

146. As alleged in the First Claim for Relief, Defendant commenced construction of one or more major modifications at the Facility. These activities triggered requirements, *inter alia*, to: (i) obtain a PSD permit establishing emissions limitations that meet BACT for one or more of the Flares; (ii) operate the Flares in compliance with BACT; or (iii) otherwise comply with the requirements of the PSD permit program.

147. Defendant's applications for Title V operating permits at its Facility were incomplete because Defendant failed to, *inter alia*: (i) include enforceable BACT limits at the Facility and Flares; (ii) identify all applicable requirements or accurately certify compliance with such requirements; and (iii) provide a compliance plan for all applicable requirements for which the Facility was not in compliance.

148. In the alternative, Defendant failed to supplement or correct previously submitted Title V permit applications in order to: (i) seek enforceable BACT limits at the Flares; (ii) identify all applicable requirements; (iii) accurately certify compliance with such requirements; and (iv) include a compliance plan for requirements for which the Facility was not in compliance.

149. Defendant continues to operate its Facility without having valid Title V operating permits that require compliance with BACT at the Facility and Flares or contain a compliance plan for coming into compliance with BACT at the Facility and Flares.

150. The acts and/or omissions identified in this Claim constitute violations of:

(a) 42 U.S.C. § 7661(a)-(c);

(b) 40 C.F.R. §§ 70.1(b), 70.5(a) and (b), 70.6(a) and (c), and 70.7(b); and

(c) The federally enforceable Louisiana Title V program to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs 150(a) and (b).

151. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

152. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a) for the violations set forth above.

THIRD CLAIM FOR RELIEF

Violations of NSPS, NESHAP, and MACT Requirements; Title V Permits that Incorporate these Requirements

(Failure to Monitor to Ensure Flares Are Operated and Maintained in Conformance with their Design)

153. Paragraphs 4-12 and 33-135 are re-alleged and incorporated herein by reference.

154. Since at least 2009, the Flares have been subject to one or more of the following CAA regulations: 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY.

155. Since at least 2009, the Flares have been subject to a federally enforceable Title V permit that compels compliance with one or more of the following CAA regulations: 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY.

156. Since at least 2009, the Flares have been subject to the requirements of 40 C.F.R. §§ 60.18(d) and/or 63.11(b)(1).

157. At various times since the first calendar quarter of 2009, Defendant failed to perform the following at the Flares: (i) install and/or properly operate vent gas flow monitors and assist-steam flow monitors; (ii) calculate steam-to-vent gas ratios; or (iii) have sufficient controls on steam flow to maintain steam-to-vent gas within design parameters.

158. The acts and omissions identified in this Claim constitute violations of:

(a) Sections 111 and 112 of the CAA, 42 U.S.C. §§ 7411, 7412;

(b) 40 C.F.R. §§ 60.18(d), 63.11(b)(1);

(c) The provisions of 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY that require flares to comply with the requirements identified in subparagraphs 158(a) and (b);

(d) The federally enforceable corollary provisions of the Louisiana SIP that adopt, incorporate, and/or implement any of the federal provisions cited in subparagraphs 158(a)–(c);

(e) The terms of the CAA Title V permits for the Facility that require compliance with the requirements identified in subparagraphs 158(a)–(d); and

(f) The prohibitions against violating the terms of a CAA Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

159. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

160. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a) for the violations set forth above.

FOURTH CLAIM FOR RELIEF

Violations of NSPS, NESHAP, and MACT Requirements; Title V Permits that Incorporate these Requirements

(Failure to Operate Flares Consistent with Good Air Pollution Control Practices)

161. Paragraphs 4-12, 33-135, 154-155, and 158 are re-alleged and incorporated herein by reference.

162. Since at least 2009, the Flares have been subject to the requirements of 40 C.F.R. §§ 60.11(d), 61.12(c), and/or 63.6(e)(1)(i).

163. At various times since at least the first calendar quarter of 2009, Defendant operated the Flares without sufficient NHV in the combustion zone gas.

164. Operating the Flares at an insufficient NHV reduced combustion efficiency and resulted in excessive emissions to the atmosphere from the Flares of un-combusted and partially-combusted HAPs and hydrocarbons (including VOCs), and other pollutants.

165. At various times since at least the first calendar quarter of 2009, Defendant operated the Flares with an excessively high steam-to-vent gas ratios.

166. Operating the flares with excessively high steam-to-vent gas ratios increased the likelihood of flame quenching or snuffing, reduced flare combustion efficiency, and resulted in excessive emissions from the Flares to the atmosphere of un-combusted and partially-combusted HAPs and hydrocarbons (including VOCs), and other pollutants.

167. Since at least the first calendar quarter of 2009, Defendant failed to install, or failed to use, sufficient equipment and/or monitoring systems at one or more of the flares at the Facility to enable Defendant to monitor, measure, and/or calculate the NHV in the combustion zone gas of the Flares. In addition, Defendant failed to add supplemental gas quickly enough and/or in sufficient amounts to maintain sufficient NHV in the combustion zone gas.

168. Since at least the first calendar quarter of 2009, at one or more of the Flares, Defendant has failed to: (i) install or use adequate monitoring to measure the flow of vent gas and/or assist-steam to the Flares; (ii) calculate and monitor the ratio of the flows of vent gas to assist-steam; and (iii) install sufficient controls on, or sufficiently control the flow of, assist-steam to enable increasing or decreasing it in order to optimize the S:VG, maintain a sufficient NHV of the combustion zone gas, maximize flame stability, and maintain a high VOC combustion efficiency.

169. Defendant violated good air pollution control practices by, *inter alia*: (i) operating the Flares with an insufficient NHV in the combustion zone gas; (ii) failing to monitor the NHV in the combustion zone gas of the Flares; (iii) operating the Flares with excessively high steam-to-vent gas ratios; (iv) failing to install monitors sufficient to measure and calculate steam-to-vent gas ratios at the Flares; and (v) operating the Flares without sufficient controls to optimize the assist-steam injection rate.

170. The acts and omissions identified in this Claim constitute violations:

(a) Sections 111(e) and 112 of the CAA, 42 U.S.C. §§ 7411(e), 7412;

(b) 40 C.F.R. §§ 60.11(d), 61.12(c), and 63.6(e)(1)(i);

(c) The provisions of 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY that require flares to comply with the requirements identified in subparagraphs 170(a) and (b);

(d) The terms of the CAA Title V permits for the Facility that require compliance with the requirements identified in subparagraphs 170(a)–(d); and

(e) The prohibition against violating a CAA Title V permit found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

171. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

172. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a) for the violations set forth above.

FIFTH CLAIM FOR RELIEF

Violation of an NSPS, NESHAP, and MACT Requirements; Title V Permits that Incorporate these Requirements

(Combusting Gas in Flares with a NHV of Less than 300 BTU/scf)

173. Paragraphs 4-12, 33-135, 154-155, 158, and 162-168 are re-alleged and incorporated herein by reference.

174. Since at least 2009, the Flares have been subject to the requirements of 40 C.F.R. §§ 60.18(c)(3) and/or 63.11(b)(6).

175. At various times since the first calendar quarter of 2009, Defendant combusted gas that had a NHV less than 300 BTU/scf in one or more of the Flares.

176. The acts and omissions identified in this Claim constitute violations of:

(a) Sections 111(e) and 112 of the CAA, 42 U.S.C. §§ 7411(e), 7412;

(b) 40 C.F.R. §§ 60.18(c)(3)(ii) and 63.11(b)(6)(ii);

(c) The provisions of 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY that require flares to comply with the requirements identified in subparagraphs 176(a) and (b);

(d) The terms of the CAA Title V permits for the Facility that require compliance with the requirements identified in subparagraphs 176(a)-(d); and

(e) The prohibition against violating a CAA Title V permit found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

177. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

178. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable, for the violations set forth above, for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a).

SIXTH CLAIM FOR RELIEF

Violations of NSPS, NESHAP, and MACT Requirements; Title V Permits that Incorporate these Requirements

(Failure to Comply with Additional Flare Operation Requirements)

179. Paragraphs 4-12, 33-135, 154-155, 158, 162-168, and 174-175 are re-alleged and incorporated herein by reference.

180. Since at least 2009, the Flares have been subject to the requirements of 40 C.F.R. §§ 60.18(b) and/or 63.11(b).

181. At various times since at least 2009, Defendant failed to operate one or more of the Flares at all times when emissions were vented to the Flare(s), and/or operated one or more of the Flares: (i) with visible emissions; (ii) at times when no flame was present; or (iii) without complying with maximum exit velocity requirements.

182. Defendant's acts and/or omissions constitute violations of:

(a) CAA Sections 111(e) and 112, 42 U.S.C. §§ 7411(e) and 7412;

(b) 40 C.F.R. §§ 60.18(c)(1) and 63.11(b)(4);

(c) 40 C.F.R. §§ 60.18(c)(2) and 63.11(b)(5);

(d) 40 C.F.R. §§ 60.18(c)(4) and 63.11(b)(7);

(e) 40 C.F.R. §§ 60.18(e) and 63.11(b)(3);

(f) The provisions of 40 C.F.R. Part 60, Subparts VVa and/or NNN; 40 C.F.R. Part 61, Subpart FF; and/or 40 C.F.R. Part 63, Subparts A, G, SS, and/or YY that require flares to comply with the requirements identified in subparagraphs 182(a)–(e);

(g) The federally enforceable corollary provisions of the Louisiana SIP that adopt, incorporate, and/or implement any of the federal provisions cited in subparagraphs 182(a)–(f);

(h) The terms of the CAA Title V permits for the Facility that require compliance with the requirements identified in subparagraphs 182(a)–(g); and

(i) The prohibition against violating a CAA Title V permit found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

183. Unless restrained by an order of this Court, the violations alleged in this Claim for Relief will continue.

184. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), the violations set forth above subject Defendant to injunctive relief and civil penalties. *See also* 40 C.F.R. § 19.4. Defendant is also liable for injunctive relief and civil penalties pursuant to La. R.S. 30:2025(E)(1)(a) for the violations set forth above.

PRAYER FOR RELIEF

Based on the allegations in Paragraphs 1-184 of this Complaint, the United States respectfully requests that this Court:

A. Enter judgment in favor of the United States and LDEQ and against Defendant;

B. Order Defendant to take all actions necessary to operate the Flares at the Facility in compliance with the CAA requirements that this Complaint alleges Defendant violated, including the applicable requirements of the Louisiana SIP;

C. Permanently enjoin Defendant from operating the Flares except in accordance with the CAA and applicable regulatory requirements, including the Louisiana SIP;

D. Order Defendant to take other appropriate actions to remedy, mitigate, and offset the harm caused by the alleged CAA violations by, among other things, requiring Defendant to address or offset its unlawful emissions;

E. Assess civil penalties, pursuant to 28 U.S.C. § 2461 *et seq*. and 40 C.F.R. § 19.4, of up to $27,500 per day for each violation between January 31, 1997, and March 15, 2004, inclusive; up to $32,500 per day for each violation between March 16, 2004, and January 12, 2009, inclusive; up to $37,500 per day for each between January 12, 2009 and November 2, 2015, inclusive; and up to $95,268 per day for each violation that occurred after November 2, 2015. *See* 28 U.S.C. § 2461 (note), as amended by 31 U.S.C. § 3701 (note), 40 C.F.R. § 19.4, and 82 Fed. Reg. 3633 (Jan. 12, 2017).

F. Assess civil penalties, pursuant to La. R.S. 30:2025(E)(1)(a), of up to the cost to Louisiana of any response action made necessary by the violations alleged in the Complaint not voluntarily paid by Defendant, and a penalty of up to $32,500 for each day of violation; and, if any violation alleged in the Complaint has been done intentionally, willfully, or knowingly, or has resulted in a discharge or disposal which caused or causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, assess an additional penalty of up to $1,000,000;

G. Award Plaintiffs their costs of this action; and

H. Grant such other relief as the Court deems just and proper.

Respectfully Submitted,

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