IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF ILLINOIS EAST ST. LOUIS DIVISION

)

)

))

)

)

)

)

UNITED STATES OF AMERICA and STATE OF ILLINOIS, Co-Plaintiffs, v. WRB REFINING LP and PHILLIPS 66 COMPANY, Defendants.

Civil Action No. 18-1484

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 State of Illinois ("Illinois" or "State"), by and through Lisa Madigan, the Attorney General of the State of Illinois on her own motion (collectively "Plaintiffs"), file this Complaint and allege as follows:

NATURE OF ACTION

1. This is a civil action against Phillips 66 Company and WRB Refining LP (collectively "WRB/P66") pursuant to the following statutory provisions: Sections 113(b) and 167 of the Clean Air Act ("CAA"), 42 U.S.C. §§ 7413(b) and 7477; Sections 109(c) and 113(b) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. §§ 9609(c) and 9613(b); and Section 325(b)(3) of the Emergency Planning and Community Right-To-Know Act ("EPCRA"), 42 U.S.C. § 11045(b)(3); and the Illinois

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 2 of 90 Page ID #2

Environmental Protection Act ("IEPA"), 415 ILCS 5/1 et seq., including the Title V permit

program, 415 ILCS 5/39.5.

2. This Complaint is for civil penalties and injunctive relief at a petroleum refinery

located in Roxana and Hartford, Illinois ("Wood River Refinery") for alleged violations of the

following requirements and obligations:

- a. The Prevention of Significant Deterioration ("PSD") requirements contained in Part C of Title I of the CAA, 42 U.S.C. § 7470-7492, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 ("PSD Regulations");
- b. The Non-Attainment New Source Review ("Non-Attainment NSR") requirements contained in Part D of Title I of the CAA, 42 U.S.C.
 §§ 7501-7515, and the regulations promulgated thereunder at 40 C.F.R.
 § 51.165, Part 51, Appendix S, and § 52.24 ("NSR Regulations");
- c. The New Source Performance Standards ("NSPS") promulgated at 40 C.F.R. Part 60, Subparts A, J, Ja, VV, VVa, GGG, and GGGa, pursuant to Section 111 of the CAA, 42 U.S.C. § 7411;
- d. The National Emission Standards for Hazardous Air Pollutants ("NESHAPs") for Benzene Waste Operations promulgated at 40 C.F.R. Part 61, Subpart FF, pursuant to Section 112 of the CAA, 42 U.S.C. § 7412;
- e. The NESHAPs for Source Categories promulgated at 40 C.F.R. Part 63, Subparts A, G, CC, and UUU, pursuant to Section 112 of the CAA, 42 U.S.C. § 7412;
- f. The requirements of Title V of the CAA found at 42 U.S.C. §§ 7661a(a), 7661b(c), 7661c(a), and the regulations promulgated thereunder at 40 C.F.R. §§ 70.1(b), 70.5(a) and (b), 70.6(a) and (c), and 70.7(b);
- g. The portions of the Title V permit for the Wood River Refinery that adopt, incorporate, or implement the provisions cited in Subparagraphs 2.a–2.e and 2.h;
- h. The federally enforceable Illinois State Implementation Plan ("SIP"): *(i)* to the extent that it adopts, incorporates, and/or implements the federal requirements set forth in Subparagraphs 2.a and 2.b; and *(ii)* at 35 Ill. Adm. Code 219.301 and 219.302;

- i. The requirements set forth in Subparagraphs 2.c–2.e that Illinois is delegated to implement through agreements between EPA and the Illinois Environmental Protection Agency; and
- j. Upon information and belief, the emergency notification requirements of CERCLA, 42 U.S.C. § 9603(a), and EPCRA, 42 U.S.C. § 11004(b).

JURISDICTION AND VENUE

3. This Court has jurisdiction over the subject matter pursuant to 28 U.S.C. §§ 1331, 1345, 1355 and 1367; Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477; Sections 109 of CERCLA, 42 U.S.C. § 9609(c); and Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3). This Court has personal jurisdiction over WRB/P66, which does business in the State of Illinois and in this judicial district.

4. Venue is proper in this District pursuant to Section 113(b) of the CAA, 42 U.S.C.
§ 7413(b); 28 U.S.C. §§ 1391(b) and (c) and 1395(a); Section 113(b) of CERCLA, 42 U.S.C.
§ 9613(b); and Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3), because the alleged
violations in this Complaint occurred and are occurring at the WRB/P66 Wood River Refinery
which is located in this District. Each defendant has consented to venue in this District.

NOTICE

5. On June 30, 2014, EPA issued a Notice and Finding of Violation ("June 2014 NOV/FOV") identifying alleged Clean Air Act violations at the Wood River Refinery. EPA's June 2014 NOV/FOV was sent to WRB/P66 and to the State of Illinois. A copy is attached hereto as Exhibit 1 to this Complaint.

6. On September 29, 2014, EPA issued a Finding of Violation ("September 2014 FOV") identifying alleged Clean Air Act violations at the Wood River Refinery. EPA's September 2014 FOV was sent to WRB/P66 and to the State of Illinois. A copy is attached hereto as Exhibit 2 to this Complaint.

7. The State of Illinois and the Defendants also have actual notice of the alleged violations of the Illinois SIP set forth in Claims 1 and 2 of this Complaint and have had this notice for more than 30 days prior to the filing of this Complaint, in compliance with 42 U.S.C. § 9413(a)(1).

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, for the CAA claims, also under Section 305(a) of the CAA, 42 U.S.C. § 7605(a).

9. Authority to bring this action for the People of the State of Illinois is vested in the Illinois Attorney General by Section 42(e) of the IEPA, 415 ILCS 5/42(e). The Illinois Attorney General is the chief legal officer of the State of Illinois and has the powers and duties prescribed by law pursuant to Article 5, Section 15 of the Illinois Constitution, Ill. Const. 1970, art. V, § 15.

DEFENDANTS

10. Defendant Phillips 66 Company is a Delaware corporation that is doing business in the State of Illinois. Phillips 66 Company is the operator of the Wood River Refinery within the meaning of Sections 111(a) and 112(a) of the CAA, 42 U.S.C. §§ 7411(a) and 7412(a).

11. Defendant WRB Refining, LP is a Delaware limited partnership that is doing business in the State of Illinois. WRB Refining LP is the owner of the Wood River Refinery within the meaning of Sections 111(a) and 112(a) of the CAA, 42 U.S.C. §§ 7411(a) and 7412(a).

12. Phillips 66 Company and WRB Refining, LP each 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);

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 5 of 90 Page ID #5

Section 103(a) of CERCLA, 42 U.S.C. § 9603(a); Section 329(7) of EPCRA, 42 U.S.C. § 11049(7); and applicable federal and state regulations promulgated pursuant to these statutes.

STATUTORY AND REGULATORY BACKGROUND

I. <u>CLEAN AIR ACT</u>

13. The Clean Air Act 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. <u>NATIONAL AMBIENT AIR QUALITY STANDARDS</u>

1. <u>General</u>

14. Section 108(a) of the CAA, 42 U.S.C. § 7408(a), requires EPA to list, and issue air quality criteria for, each air pollutant, the emissions of which may endanger public health or welfare and the presence of which results from numerous or diverse mobile or stationary sources.

15. 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 those 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 are to be adequate to protect the public health with an adequate margin of safety, and the secondary NAAQS are to be adequate to protect the public welfare from any known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air.

16. 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, *inter alia*, sulfur dioxide ("SO₂"), carbon monoxide ("CO"), and ozone. The NAAQS for these pollutants are set forth in 40 C.F.R. Part 50.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 6 of 90 Page ID #6

17. Pursuant to Section 107(d) of the CAA, 42 U.S.C. § 7407(d), each state is required to designate those 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 "non-attainment" area. An area that cannot be classified due to insufficient data is deemed "unclassifiable." Air quality designations for states are approved by EPA and can be found at 40 C.F.R. Part 81.

2. <u>State Implementation Plans</u>

18. 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. This plan is known as a State Implementation Plan ("SIP").

19. Pursuant to Section 110 of the CAA, 42 U.S.C. § 7410, states adopt and submit to EPA for approval various rules for the attainment and maintenance of the NAAQS. After such provisions are approved by EPA, these provisions constitute a state's "applicable implementation plan," within the meaning of Sections 113(b) and 302(q) of the CAA, 42 U.S.C. §§ 7413(b) and 7602(q), and are considered the State Implementation Plan ("SIP"). These 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 State Implementation Plan to include, *inter alia*, "regulation of the modification and construction of any stationary source within the areas covered by the plan as

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 7 of 90 Page ID #7

necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter [Subchapter I of the CAA]."

3. <u>Prevention of Significant Deterioration ("PSD") Requirements</u>

a. <u>PSD Program in General</u>

21. Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470–7492, sets forth 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. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the consequences of such a decision and after public participation in the decision making process. 42 U.S.C. § 7470. These provisions are referred to herein as the "PSD program."

22. The core of the PSD program is 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 conform to the CAA, demonstrating that emissions will not contribute to a NAAQS violation, and applying "best available control technology" ("BACT") to control emissions. *Id*.

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

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 8 of 90 Page ID #8

24. EPA promulgated regulations to implement the PSD program. These regulations are found at 40 C.F.R. § 52.21 and are referred to as the "PSD regulations."

b. <u>PSD Program in Illinois</u>

25. 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 State Implementation Plan 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. For an "approved" program, the state requirements must be at least as stringent as the requirements set forth at 40 C.F.R. § 51.166.

26. Illinois has a delegated PSD program. 40 C.F.R. § 52.738(b) (federal PSD program is incorporated and made part of the Illinois SIP). Illinois is authorized to issue and enforce PSD permits.

c. <u>Requirements of the Applicable PSD Regulations</u>

27. Under the PSD regulations relevant to the allegations in this Complaint, "[n]o new major stationary source or major modification to which the requirements of paragraphs (j) through (r)(5) of this section [40 C.F.R. § 52.21] apply shall begin actual construction without a permit that states that the major stationary source or major modification will meet those requirements." 40 C.F.R. § 52.21(a)(2)(iii). With certain exceptions not applicable here, the requirements of paragraphs (j) through (r)(5) "apply to the construction of any new major stationary source or the major modification of any existing major stationary source." 50 C.F.R. § 52.21(a)(2)(ii).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 9 of 90 Page ID #9

28. "Major modification" is defined as "any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(40) of this section) of a regulated NSR pollutant (as defined in paragraph (b)(50) of this section) and a significant net emissions increase of that pollutant from the major stationary source." 40 C.F.R. § 52.21(b)(2)(i).

29. "Significant emissions increase" means "for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (b)(23) of this section) for that pollutant." 40 C.F.R. § 52.21(b)(40).

30. "Regulated NSR Pollutant" means, *inter alia*, nitrogen oxides ("NOx"); sulfur dioxide ("SO₂"), particulate matter ("PM"), PM₁₀, PM_{2.5}, volatile organic compounds ("VOCs"), carbon monoxide ("CO"), hydrogen sulfide ("H₂S"), and sulfuric acid mist ("H₂SO₄"). 40 C.F.R. § 52.21(b)(50).

31. "Significant" means the following amounts for the following pollutants:

NOx	40 tons per year ("TPY")
SO_2	40 TPY
PM	25 TPY
PM_{10}	15 TPY
PM _{2.5}	10 TPY of direct PM _{2.5} emissions
VOC	40 TPY
CO	100 TPY
H_2S	10 TPY
H_2SO_4	7 TPY

40 C.F.R. § 52.21(b)(23).

32. "Net emissions increase" means "with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero: (*a*) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (a)(2)(iv) of this section; and

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 10 of 90 Page ID #10

(*b*) Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable." 40 C.F.R. § 52.21(b)(3)(i).

33. If a new major stationary source or major modification triggers the requirements of the PSD Program, the owner and/or operator, *inter alia*, must install and operate the best available control technology ("BACT") (as that term is defined at 42 U.S.C. § 7479(3) and 40 C.F.R. § 52.21(b)(12)) at the facility for each pollutant that will have a significant net emissions increase, conduct air quality modeling, and analyze and demonstrate that the construction or modification, taken together with other increases or decreases of air emissions, will not violate applicable air quality standards. 42 U.S.C. § 7475(a); 40 C.F.R. §§ 52.21(j)– (r)(5).

4. <u>NonAttainment New Source Review ("NSR") Requirements</u>

a. Nonattainment New Source Review Program in General

34. Part D of Subchapter I of the CAA, 42 U.S.C. §§ 7501-7515, sets forth provisions relating to what are commonly referred to as "New Source Review" requirements applicable to nonattainment areas ("Nonattainment NSR"). The Nonattainment NSR program is intended, *inter alia*, to reduce emissions of air pollutants in areas that have not attained the NAAQS.

35. Part D directs states to include in their SIPs requirements to provide for reasonable progress towards attainment of the NAAQS in nonattainment areas. 42 U.S.C. § 7502(c)(2).

36. Part D at Section 172(c)(5) of the CAA, 42 U.S.C. § 7502(c)(5), describes the core of the Nonattainment NSR Program. Under Section 172(c)(5), all state SIPs must require permits for the construction and operation of new or modified major stationary sources anywhere

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 11 of 90 Page ID #11

in a nonattainment area within the state. These Nonattainment NSR permits must be issued in accordance with Section 173 of the CAA, 42 U.S.C. § 7503.

37. EPA has promulgated regulations that prescribe the elements that all state SIPs must include in their Nonattainment NSR permit programs. 40 C.F.R. § 51.165. EPA also has issued an "Interpretative Ruling" that clarifies the requirements necessary for the approval of any permit in a nonattainment area. 40 C.F.R. Part 51, Appendix S, Part IV.

b. <u>Nonattainment NSR Program in Illinois</u>

38. A state may comply with Sections 172 and 173 of the CAA by having its Nonattainment NSR regulations approved by EPA as part of its SIP. These provisions must be at least as stringent as those set forth at 40 C.F.R. § 51.165 and must comply with 40 C.F.R. Part 51, Appendix S, Part IV.

39. Illinois has an approved Nonattainment NSR permit program. 35 Ill. Adm. Code Part 203. 57 Fed. Reg. 59,928 (Dec. 17, 1992). Illinois is authorized to issue and enforce Nonattainment NSR permits. In all respects relevant to this Complaint, the Nonattainment NSR permit provisions of Illinois that are applicable to this action closely mirror the federal regulations codified at 40 C.F.R. § 51.165 and 40 C.F.R. Part 51, Subpart S, Part IV.

c. <u>Requirements of Applicable Nonattainment NSR Programs</u>

40. Under the Nonattainment NSR requirements relevant to the allegations in this Complaint, no new major stationary source or major modification may be issued a permit to construct unless certain requirements are met. 40 C.F.R. Part 51, Appendix S, Section IV.A.

41. "Major stationary source" includes, *inter alia*, any stationary source that has the potential to emit 100 TPY or more of any regulated NSR pollutant. 40 C.F.R.
§ 51.165(a)(1)(iv)(A).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 12 of 90 Page ID #12

42. For purposes of this Complaint, "major modification" and the following terms used within that definition—"significant emissions increase," "significant," and "net emissions increase"—have the same meanings as those set forth in Paragraphs 27–28 and 30–31, except that, under the Nonattainment NSR program, there is no "significance" level for H₂S. 40 C.F.R. § 51.165(a)(1)(x)(A). H₂S is not a "regulated NSR pollutant" for purposes of the Nonattainment NSR program. 40 C.F.R. § 51.165(a)(1)(xxxvii).

43. If a new major stationary source or major modification triggers the requirements of the Nonattainment NSR program, the owner and/or operator must obtain a Nonattainment NSR permit that among other things: (a) secures federally enforceable emission offsets that are at least as great as the new or modified source's emissions; (b) installs and operates the lowest achievable emission rate ("LAER") as defined in Section 171(3) of the CAA, 42 U.S.C. § 7501(3); and (c) analyzes alternative sites, sizes, production processes, and environmental control techniques for the proposed source and demonstrate that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification. 42 U.S.C. §§ 7503(a)–(c); 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4.

B. <u>NEW SOURCE PERFORMANCE STANDARDS</u>

1. <u>General</u>

44. 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 including those categories that, in EPA's judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 13 of 90 Page ID #13

45. 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 a New Source Performance Standard ("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.

46. "New source" is defined 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). "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).

47. The New Source Performance Standards are located in Part 60 of Title 40 of the Code of Federal Regulations.

48. The IEPA at 415 ILCS 5/9.1 provides, in pertinent part, that the provisions of Section 111 of the federal Clean Air Act are applicable and enforceable under the IEPA and that no person shall "violate any provisions of Section[s] 111 . . . of the Clean Air Act, as now or hereafter amended, or federal regulations adopted pursuant thereto"

2. <u>Part 60, Subpart A: General</u>

49. 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 sources.
40 C.F.R. Part 60, Subpart A, §§ 60.1- 60.19 ("Subpart A").

50. Under 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

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 14 of 90 Page ID #14

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.

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

3. Part 60, Subpart A: 40 C.F.R. § 60.11(d)

52. Within 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 practice for minimizing emissions. 40 C.F.R. § 60.11(d).

4. <u>Part 60, Subpart A: 40 C.F.R. ¶ 60.13(e) (Requirements related to</u> <u>Continuous Monitoring Systems)</u>

53. Within Subpart A, EPA promulgated specific regulations that apply to all continuous monitoring systems required under any applicable Subpart. 40 C.F.R. § 60.13.

54. Of relevance to this Complaint, "except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under [another subparagraph of this provision], all continuous monitoring systems shall be in continuous operation." 40 C.F.R. § 60.13(e).

5. <u>Part 60, Subpart A: 40 C.F.R. § 60.18 (Requirements related to</u> <u>Flares Used as Control Devices)</u>

55. Within Subpart A, EPA promulgated specific regulations that apply whenever flares are used as control devices. 40 C.F.R. §§ 60.18(b)–(f).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 15 of 90 Page ID #15

56. Of relevance to this Complaint are the requirements that: (1) for steam-assisted flares, the net heating value 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); and (2) an owner or operator monitor each flare to ensure that it is operated and maintained in conformance with its design, 40 C.F.R. § 60.18(d).

6. <u>Specific NSPS Standards: Part 60, Subparts J, Ja, VV, VVa, GGG,</u> <u>and GGGa</u>

57. Pursuant to Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), EPA

has identified, *inter alia*, the following as categories of stationary sources that cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare and EPA has promulgated regulations in the following Subparts of Part 60 of Title 40 of the Code of Federal Regulations to regulate those categories:

CATEGORY	REGULATION (40 C.F.R. Part 60)
Petroleum Refineries	Subpart J and Ja:
	40 C.F.R. §§ 60.100 et seq.
	40 C.F.R. §§ 60.100a et seq.
Equipment Leaks of VOC in Petroleum	Subpart GGG and GGGa:
Refineries	40 C.F.R. §§ 60.590–60.593
	40 C.F.R. §§ 60.590a–60.593a
Equipment Leaks of VOC in the Synthetic	Subpart VV and VVa:
Organic Chemicals Manufacturing Industry	40 C.F.R. §§ 60.480–60.489
	40 C.F.R. §§ 60.480a–60.489a

58. Of relevance to this Complaint, one of the "affected facilities" that Subpart J applies to is a "fuel gas combustion device," 40 C.F.R. § 60.100(a), including a flare, 40 C.F.R. § 60.101(g), which commenced construction, reconstruction, or modification after June 11, 1973. Flares are likewise "affected facilities" under Subpart Ja. 40 C.F.R. § 60.100a(a).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 16 of 90 Page ID #16

59. Under Subparts J and Ja, an owner or operator of a flare that is an affected facility is prohibited from burning any fuel gas in the flare that contains H₂S in excess of 230 milligrams per dry standard cubic meter (approximately 162 ppm), unless certain exceptions apply.
40 C.F.R. §§ 60.104(a)(1), 60.103a(h).

60. Under Subparts J and Ja, an owner or operator of a flare that is an affected facility is required to install, calibrate, operate, and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in the fuel gases before being burned in any flare. 40 C.F.R. §§ 60.105(a)(4), 60.107a(a)(2).

61. Of relevance to this Complaint, the affected facilities that Subparts GGG and GGGa apply to are compressors and all "equipment" within a process unit at a petroleum refinery. 40 C.F.R. §§ 60.590(a), 60.590a(a). "Equipment" means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service. 40 C.F.R. §§ 60.591, 60.591a.

62. In all respects relevant to this Complaint, each owner or operator of a petroleum refinery that is subject to the requirements of Subparts GGG and GGGa is required to comply with the standards of Subparts VV and VVa, respectively. 40 C.F.R. §§ 60.592, 60.592a.

63. Of relevance to this Complaint, the affected facilities that Subparts VV and VVa apply to are all "equipment" within a process unit at a synthetic organic chemicals manufacturing facility. 40 C.F.R. §§ 60.480(a)(2), 60.482a(a)(2). "Equipment" means each pump, compressor, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service. 40 C.F.R. §§ 60.481, 60.481a.

64. Under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator who uses a flare as a control device to comply with the requirements of

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 17 of 90 Page ID #17

Subparts VV and VVa must also comply with the requirements of 40 C.F.R. § 60.18. 40 C.F.R. § 60.482-10(d), 60.482-10a(d).

65. Under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator of any control device used to comply with the requirements of Subparts VV and VVa must monitor the control device to ensure that it is operated and maintained in conformance with its design. 40 C.F.R. §§ 60.482-10(e), 60.482-10a(e).

66. Subparts VV and VVa—and therefore, GGG and GGGa—generally require owners and operators to monitor equipment for leaks and to repair the equipment if the leaks are greater than specified regulatory thresholds.

67. With certain alternatives and exceptions not relevant here, an owner or operator subject to Subparts VV and VVa is required to monitor valves in gas/vapor and light liquid service ("valves") and pumps by the method specified in 40 C.F.R. §§ 60.485(b), 60.485a(b). 40 C.F.R. §§ 60.482-7(a)(1); 60.482-7a(a)(1); 60.482-2(a)(1); 60.482-2a(a)(1).

68. 40 C.F.R. §§ 60.485(b), 60.485a(b), in turn, require each owner or operator to comply with the monitoring procedures and requirements of Method 21 at 40 C.F.R. Part 60, Appendix A.

69. Method 21, at 40 C.F.R. Part 60, Appendix A-7, Meth. 21, Section 8.3.1, requires the owner or operator of an affected source to do as follows:

Place the probe inlet [of the portable instrument that is capable of detecting emissions from equipment] at the surface of the component interface where leakage could occur. Move the probe along the interface periphery while observing the instrument readout. If an increased meter reading is observed, slowly sample the interface where leakage is indicated until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately two times the instrument response time. If the maximum observed meter reading is greater than the leak definition in the applicable regulation, record and report the results [as a leaking component].

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 18 of 90 Page ID #18

70. With certain alternatives and exceptions not relevant here, under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator is required to monitor each valve on a monthly basis to detect leaks. 40 C.F.R. §§ 60.482-7(a)(1); 60.482-7a(a)(1).

71. Under Subparts VV and VVa—and therefore, under GGG and GGGa— an "openended valve or line" is defined as any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping. 40 C.F.R. § 60.481.

72. With certain alternatives and exceptions not relevant here, under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator must equip each open-ended valve or line with a cap, blind flange, plug, or second valve. 40 C.F.R. §§ 60.482-6(a)(1); 60.482-6a(a)(1).

73. Under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator must keep a list of the identification numbers for equipment that is subject to the requirements of Subparts VV and VVa. 40 C.F.R. §§ 60.486(e)(1); 60.486a(e)(1).

74. Under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator may designate valves as "difficult to monitor," 40 C.F.R. §§ 60.486(f)(2); 60.486a(f)(2), if the equipment meets the applicable requirements to satisfy that designation. 40 C.F.R. §§ 60.482-7(h); 60.482-7a(h).

75. Under Subparts VV and VVa—and therefore, under GGG and GGGa—each owner or operator may delay repair of a leaking piece of equipment based on certain standards. 40 C.F.R. §§ 60.482-9; 60.482-9a. In each semi-annual report due under Subparts VV and VVa, each owner or operator must set forth the facts that explain each delay or repair and, where

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 19 of 90 Page ID #19

appropriate, why a process unit shutdown was technically infeasible. 40 C.F.R. §§ 60.487(c)(2)(vii); 60.487a(c)(2)(vii).

C. <u>NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR</u> <u>POLLUTANTS</u>

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

76. Section 112 of the Clean Air Act sets forth a national program for the control of hazardous air pollutants ("HAPs"). 42 U.S.C. § 7412. As originally promulgated in the Clean Air Act Amendments of 1970, Section 112 directed EPA to publish a list of HAPs. A HAP was defined as "an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness." 42 U.S.C. § 1857c-7 (1971). At that time, Congress directed EPA to establish HAP standards that provided "an ample margin of safety to protect the public health from such hazardous air pollutant." *Id*.

77. Between 1970 and 1990, EPA listed eight substances as hazardous air pollutants and promulgated emission standards for seven of them. H.R. Rep. No. 101-490, 101st Cong., 2d Sess., pt 1 at 151 (1990).

78. The IEPA at 415 ILCS 5/9.1 provides, in pertinent part, that the provisions of Section 112 of the federal Clean Air Act are applicable and enforceable under the IEPA and that no person shall "violate any provisions of Section[s] 112 . . . of the Clean Air Act, as now or hereafter amended, or federal regulations adopted pursuant thereto"

2. Part 61, Subpart FF: 40 C.F.R. §§ 61.340–61.359

79. Pursuant to Section 112 as it existed prior to the CAA Amendments of 1990, EPA listed benzene as a hazardous air pollutant and promulgated standards related to the control of benzene in waste operations. 55 F.R. 8292 (March 7, 1990). Thereafter, in 1993, EPA finalized

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 20 of 90 Page ID #20

the regulations, 58 F.R. 3072 (January 7, 1993), and published them at 40 C.F.R. Part 61, Subpart FF. 40 C.F.R. §§ 61.340-61.359. These regulations commonly are referred to as the "Benzene Waste Operations NESHAP" or "Subpart FF."

80. Subpart FF applies, *inter alia*, to petroleum refineries. 40 C.F.R. § 61.340(a).

81. Under Subpart FF, a "waste management unit" is "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. . . ." 40 C.F.R. § 61.341.

82. Under Subpart FF, a "tank" is "a stationary waste management unit that is designed to contain an accumulation of waste and is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support." 40 C.F.R. § 61.341.

83. For tanks, Subpart FF requires, *inter alia*, that "the owner or operator must meet the standards in paragraph (a)(1) or (2) of this section for each tank The standards in this section apply to the treatment and storage of the waste stream in a tank, including dewatering." 40 C.F.R. \$ 61.343(a).

84. 40 C.F.R. § 61.343(a)(1) requires that "[t]he owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device."

85. 40 C.F.R. § 61.343(a)(1)(i) requires, *inter alia*, that "[t]he fixed-roof shall meet the following requirements: (A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 21 of 90 Page ID #21

an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart."

86. "As an alternative to the standards for tanks specified in § 61.343 of this subpart, an owner or operator may elect to comply with one of the following:... (2) An external floating roof meeting the requirements of 40 CFR 60.112b(a)(2)...." 40 C.F.R. § 61.351(a).

87. For an external floating roof tank, 40 C.F.R. § 60.112b(a)(2)(ii) requires that "[a]utomatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.... Automatic bleeder vents and rim space vents are to be gasketed...."

88. Under Subpart FF, an "individual drain system" is "the system used to convey waste from a process unit, product storage tank, or waste management unit to a waste management unit. The term includes all process drains and common junction boxes, together with their associated sewer lines and other junction boxes, down to the receiving waste management unit." 40 C.F.R. § 61.341.

89. For individual drain systems, Subpart FF requires, *inter alia*, that "the owner or operator shall install, operate, and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device." 40 C.F.R. § 61.346(a).

90. Under 40 C.F.R. § 61.346(a)(1)(i), "[t]he cover shall meet the following requirements: (A) The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detactable [*sic*] emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart. (B) Each opening shall be maintained in a

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 22 of 90 Page ID #22

closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair."

91. Under Subpart FF, an "oil-water separator" is "a waste management unit, generally a tank or surface impoundment, used to separate oil from water. An oil-water separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional treatment units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water separator include an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment." 40 C.F.R. § 61.341.

92. For oil-water separators, Subpart FF requires, *inter alia*, "The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device." 40 C.F.R. § 61.347(a).

93. Under 40 C.F.R. § 61.347(a)(1)(i)(A), the fixed roof shall meet the following requirements: "[t]he cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart."

94. Under 40 C.F.R. § 61.347(a)(1)(i)(B), "[e]ach opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair."

95. Under Subpart FF, at 40 C.F.R. § 61.342(e), "an owner or operator of a facility at

which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr

(11 ton/yr) . . . may elect to manage and treat the facility waste as follows:

- (1) "The owner or operator shall manage and treat facility waste with a flowweighted annual average water content of less than 10 percent in accordance with the requirements of paragraph (c)(1) of this [section 61.342]; and
- (2) "The owner or operator shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of 10 percent or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such that the resulting mixture has an annual water content greater than 10 percent, in accordance with the following:
 - (i) "The benzene quantity for the wastes described in paragraph (e)(2) of this section [61.342] must be equal to or less than 6.0 Mg/yr (6.6 ton/yr), as determined in § 61.355(k). Wastes as described in paragraph (e)(2) of this section [61.342] that are transferred offsite shall be included in the determination of benzene quantity as provided in § 61.355(k). The provisions of paragraph (f) of this section [61.342] shall not apply to any owner or operator who elects to comply with the provisions of paragraph (e) of this section [61.342].
 - (ii) "The determination of benzene quantity for each waste stream defined in paragraph (e)(2) of this section [61.342] shall be made in accordance with § 61.355(k)."

3. General: Section 112 of the CAA after the 1990 CAA Amendments

96. Through the Clean Air Act 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 regulations then in existence under

the original Section 112 (such as the Benzene Waste Operations NESHAP at 40 C.F.R. Part 61,

Subpart FF described above) remained in full force and effect.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 24 of 90 Page ID #24

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

98. 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).

99. "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 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. 42 U.S.C. § 7412(a)(1).

100. "Stationary source" was and is defined as any building, structure, facility, or installation which 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)).

101. 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 F.R. 31576, 31578 (July 16, 1992). A single stationary source can be comprised of multiple source categories. *Id*.

102. Congress directed EPA to promulgate regulations establishing emission standards for each category or subcategory 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 the Administrator, 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).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 25 of 90 Page ID #25

103. 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).

104. The emission standards promulgated under Section 112 of the 1990 Amendments of the CAA, 42 U.S.C. § 7412, are known as the National Emission Standards for Hazardous Air Pollutants ("NESHAPs") for Source Categories or "MACT" ("maximum achievable control technology") standards. These emission standards are found in Part 63 of Title 40 of the Code of Federal Regulations.

105. 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).

4. Part 63, Subpart A: General

106. 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 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 ("Subpart A").

107. Under 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 hazardous air pollutant listed in or pursuant to section 112(b) of the Act; 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).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 26 of 90 Page ID #26

108. Under Subpart A, each relevant standard in Part 63 must identify explicitly whether each provision in Subpart A is or is not included in such relevant standard. 40 C.F.R. § 63.1(a)(4)(i).

5. Part 63 Subpart A: 40 C.F.R. § 63.6(e)(1)(i)

109. Within Subpart A of Part 63, EPA promulgated a requirement that corresponds to the "good air pollution control practices" requirement of Subpart A of the NSPS (*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).

6. <u>Part 63, Subpart A: 40 C.F.R. § 63.11(b) (Requirements related to</u> <u>Flares Used as Control Devices)</u>

110. Within Subpart A of Part 63, EPA promulgated specific regulations that apply whenever flares are used as control devices. 40 C.F.R. § 63.11(b).

111. Of relevance to this Complaint are the requirements that: (1) for steam-assisted flares, the net heating value of the gas being combusted must be 300 British Thermal Units ("BTU") per standard cubic foot ("scf") or greater, 40 C.F.R. § 63.11(b)(6)(ii); and (2) an owner or operator monitor a flare to ensure that it is operated and maintained in conformance with its design. 40 C.F.R. § 63.11(b)(1).

7. Specific MACT Standards: Part 63, Subpart CC

112. Pursuant to Section 112(c) of the CAA, 42 U.S.C. § 7412(c), EPA identified petroleum refineries as a source category of HAPs. 57 F.R. 31576, 31591 (Table 1) (July 16, 1992).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 27 of 90 Page ID #27

113. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA promulgated the National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. 60 Fed. Reg. 43260 (August 18, 1995). These standards are commonly referred to as the "Refinery MACT" and are found at 40 C.F.R. Part 63, Subpart CC, §§ 63.640–63.656 and associated Tables.

114. Of relevance to this Complaint, the affected sources that Subpart CC applies to are all "miscellaneous process vents" and "equipment leaks" from petroleum refining process units that are located at a plant site that is a major source and that emit or have equipment containing or contacting one or more of the HAPs listed in a table associated with Subpart CC. 40 C.F.R. §§ 63.640(c)(1), (c)(4).

115. Under Subpart CC, owners or operators of certain types of process vents must reduce emissions of organic HAPs from these vents by using either: (1) a flare that meets the requirements of 40 C.F.R. § 63.11(b), 40 C.F.R. § 63.643(a)(1); or (2) a different type of control device that reduces organic HAPs by 98 weight percent or to a concentration of 20 ppmv. 40 C.F.R. § 63.643(a)(2).

116. Under Subpart CC, owners and operators must comply with the equipment leak provisions of Subpart VV, 40 C.F.R. § 63.648(a), which requires compliance with 40 C.F.R. § 60.18.

117. Pursuant to Table 6 of Subpart CC, with certain exceptions that are not applicable here, owners or operators of affected facilities under Subpart CC are required to comply with 40 C.F.R. §§ 63.6(e) and 63.11(b).

6. Specific MACT Standards: Part 63, Subpart UUU

118. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), and several years after promulgating Subpart CC, EPA promulgated Subpart UUU: the "National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units." These standards are commonly referred to as the "Refinery MACT II" standards and are found at 40 C.F.R. Part 63, Subpart UUU, §§ 63.1560–1579 and associated Tables.

119. Of relevance to this Complaint, the affected source that Subpart UUU applies to are process vents or groups of process vents on catalytic reforming units that are associated with the regeneration of the catalyst used in the unit, 40 C.F.R. § 63.1562(b)(2), if the unit is located at a petroleum refinery that is a major source of HAP emissions. 40 C.F.R. § 63.1561(a).

120. Under Subpart UUU, owners or operators of process vents on catalytic reforming units that are affected sources have two compliance options for controlling emissions, one of which requires venting emissions to a flare that meets the control device requirements of 40 C.F.R. § 63.11(b). 40 C.F.R. § 63.1566(a)(1)(i).

121. Pursuant to Table 44 of Subpart UUU, owners and operators of affected facilities under Subpart UUU are required to comply with 40 C.F.R. §§ 63.6(e)(1) and 63.11(b).

D. <u>ILLINOIS SIP</u>

122. Pursuant to Section 110 of the CAA, 42 U.S.C. § 7410, Illinois adopted and submitted to EPA for approval various rules for the attainment and maintenance of the NAAQS. As part of the federally enforceable Illinois SIP for the Chicago area, EPA approved the following: "No person shall cause or allow the discharge of organic materials in excess of 100 ppm equivalent methane (molecular weight 16.0) into the atmosphere from [various petroleum

refining sources]." 35 Ill. Adm. Code 219.441(a). At the same time, EPA approved a provision that allowed certain sources to comply with this general prohibition by either limiting emissions to eight (8) pounds per hour of organic material or reducing uncontrolled organic emissions to 10 ppm organic material or by 85%. 35 Ill. Adm. Code 219.441(b) (permitting compliance with 35 Ill. Adm. Code 219.301 and 219.302).

E. <u>TITLE V</u>

123. Title V of the Clean Air Act, 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 a PSD or Nonattainment 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).

124. 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 state or local air pollution control agency. 57 Fed. Reg. 32250 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

125. Illinois has an EPA-approved Title V program found at 415 ILCS 5/39.5. 60 Fed. Reg. 12,478 (interim approval, March 7, 1995); 66 Fed. Reg. 62,946 (full approval, Dec. 4, 2001). Illinois is authorized to issue and enforce Title V permits. In all respects relevant to this Complaint, the Title V regulations of Illinois closely mirror the federal Title V regulations codified at 40 C.F.R. Part 70.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 30 of 90 Page ID #30

126. Section 502(a) of the CAA (42 U.S.C. § 7661a(a)) and the Title V permit program and regulations of Illinois provide that, after the effective date of the state Title V permit program, no person may violate any requirement of a Title V permit.

127. 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 Illinois 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.

128. 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 Illinois 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 determine all applicable air pollution control requirements (including any requirement to meet the applicable control technology requirements under the PSD and Nonattainment NSR programs and to comply with the applicable NSPS and/or NESHAP/MACT standards), 40 C.F.R. § 70.5(c)(4); (ii) information that may be necessary to determine the applicability of other applicable requirements for which the source is not in compliance, 42 U.S.C. § 7661b(b), 40 C.F.R. § 70.5(c)(8); and (iv) a certification of compliance with all applicable requirements by a responsible official. 40 C.F.R. § 70.5(c)(9).

129. Under 40 C.F.R. § 70.5(b) and the Title V permit program and regulations of Illinois, any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

130. 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 Illinois requires each Title V permit to include, *inter alia*, enforceable emission limitations and standards, a schedule of compliance, and such other conditions as are necessary to assure compliance with all applicable requirements of the CAA, including the requirements of the applicable SIP.

131. 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).

F. <u>ENFORCEMENT OF THE CAA</u>

132. 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 and Nonattainment NSR permit programs, a PSD or Nonattainment NSR permit, the NSPS program, the NESHAP/MACT program, the Title V permit program, or a Title V permit.

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

134. 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.

135. 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.*, as amended by the Federal Civil Penalties Inflation Adjustment Act Improvement Act of 2015, 28 U.S.C. § 2461 note, Pub. L. 114-74, requires EPA to periodically adjust its civil penalties for inflation.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 32 of 90 Page ID #32

Pursuant to those statutory mandates, EPA has adopted and revised regulations entitled "Adjustment of Civil Monetary Penalties for Inflation," 40 C.F.R. Part 19, to upwardly adjust the maximum civil penalty under the CAA. Of relevance to this Complaint, 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 occurs after November 2, 2015, where penalties are assessed on and after January 15, 2018, penalties of up to \$97,229 per day may be assessed. 40 C.F.R. § 19.4.

136. Pursuant to Section 42 of the IEPA, 415 ILCS 5/42, the Attorney General of Illinois may institute a civil action at the request of the Illinois Environmental Protection Agency or on her own motion, to restrain violations of the IEPA and regulations adopted under it, and for civil penalties.

II. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT ("CERCLA") AND EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT ("EPCRA")

A. <u>CERCLA Emergency Notification Requirements</u>

137. Section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9602(a), requires the Administrator of EPA to publish a list of substances designated as hazardous substances which when released into the environment may present substantial danger to public health or welfare or the environment, and to promulgate regulations establishing that quantity of any hazardous substance, the release of which shall be required to be reported under Section 103(a) of CERCLA, 42 U.S.C. § 9603(a) ("Reportable Quantity" or "RQ"). The list of RQs of hazardous substances is codified at 40 C.F.R. Part 302.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 33 of 90 Page ID #33

138. Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), as implemented by 40 C.F.R. Part 302, requires, in relevant part, that a person in charge of an onshore facility, as soon as he/she has knowledge of a release (other than a federally permitted release) of a hazardous substance from such facility in quantities equal to or greater than the RQ to immediately notify the National Response Center ("NRC") established under the Section 311(d)(2)(E) of the CWA, 33 U.S.C. § 1321(d)(2)(E), of such release.

139. "Onshore facility," under Section 101 of CERCLA, 42 U.S.C. § 9601, is defined as any facility of any kind located in, on, or under, any land or nonnavigable waters within the United States. 42 U.S.C. § 9601(18).

140. Section 109(c)(1) of CERCLA, 42 U.S.C. § 9609(c)(1), provides that any person who violates the notice requirements of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), shall be liable to the United States for civil penalties.

B. <u>EPCRA Emergency Notification Requirements</u>

141. The Emergency Planning and Community Right-to-Know Act ("EPCRA") was enacted on October 17, 1986, as Title III of the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499 (1986) (codified at 42 U.S.C. §§ 11001–11050).

142. The purpose of EPCRA was and is to provide communities with information on potential chemical hazards within their boundaries and to foster state and local emergency planning efforts to control any accidental releases. Emergency Planning and Community Right-to-Know Programs, Interim Final Rule, 51 Fed. Reg. 41,570 (1986).

143. To achieve this end, EPCRA mandates that state emergency response
commissions ("SERCs") and local emergency planning committees ("LEPCs") be created.
42 U.S.C. § 11001(a) and (c). EPCRA establishes a framework of state, regional, and local

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 34 of 90 Page ID #34

agencies designed to inform the public about the presence of hazardous and toxic chemicals, and to provide for emergency response in the event of a health-threatening release. 42 U.S.C. § 11001. EPCRA further mandates that industrial and commercial facilities, at which a hazardous chemical is produced, used, or stored, notify SERCs and LEPCs when they have releases of extremely hazardous substances and hazardous substances. 42 U.S.C. § 11004.

144. Sections 304(a) and (b) of EPCRA, 42 U.S.C. §§ 11004(a) and (b), require the owner and operator of a facility at which a hazardous chemical is produced, used, or stored, to immediately notify the SERC and LEPC of certain specified releases of a hazardous or extremely hazardous substance.

145. Section 329(4) of EPCRA, 42 U.S.C. § 11049(4), and 40 C.F.R. § 355.20 define "facility" to mean, in relevant part, all buildings, equipment, structures, and other stationary items which are located on a single site and that are owned or operated by the same person.

146. Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3), provides that any person who violates the notice requirements of Section 304 of EPCRA, 42 U.S.C. § 11004, shall be liable to the United States for civil penalties.

C. <u>Federal Enforcement of CERCLA and EPRCA Emergency Notification</u> <u>Requirements</u>

147. Section 109(c) of CERCLA, 42 U.S.C. § 9609(c), and Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3), authorize EPA to assess a civil penalty of up to \$25,000 per day of violation, and in the case of a second or subsequent violation, \$75,000 per day of violation of CERCLA Section 103, 42 U.S.C. § 9603, or of EPCRA Section 304, 42 U.S.C. § 11004. The Debt Collection Improvement Act, 31 U.S.C. § 3701 *et seq.*, as amended by the Federal Civil Penalties Inflation Adjustment Act Improvement Act of 2015, 28 U.S.C. § 2461 note, Pub. L. 114-74, requires EPA to periodically adjust its civil penalties for inflation. Pursuant to those

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 35 of 90 Page ID #35

statutory mandates, EPA has adopted and revised regulations entitled "Adjustment of Civil Monetary Penalties for Inflation," 40 C.F.R. Part 19, to upwardly adjust the maximum civil penalty under CERCLA and EPCRA. Of relevance to this Complaint, 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 occurs after November 2, 2015, where penalties are assessed on or after January 15, 2018, penalties of up to \$55,907 per day may be assessed. Additionally, in the case of a second or subsequent violation, for each such second or subsequent violation that occurred between March 16, 2004, and January 12, 2009, inclusive, penalties of up to \$97,500 per day may be assessed; for each second or subsequent violation that occurred between January 13, 2009, and December 6, 2013, penalties of up to \$107,500 per day may be assessed; for each second or subsequent violation that occurred between December 7, 2013, and November 2, 2015, penalties of \$117,500 per day may be assessed; and for each second or subsequent violation that occurs after November 2, 2015, where penalties are assessed on or after January 15, 2018, penalties of up to \$164,722 may be assessed. 40 C.F.R. § 19.4.

CLEAN AIR ACT CLAIMS: 1–9

General Allegations

148. WRB/P66 is the "owner or operator," within the meaning of the CAA, of the Wood River Refinery.

149. The Wood River Refinery is a "major emitting facility," a "source," a "stationary source," a "major stationary source," and a "major source" within the meaning of the CAA, the New Source Review permit programs and regulations (including the PSD and Nonattainment

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 36 of 90 Page ID #36

NSR programs), the NSPS program and regulations, the NESHAP/MACT program and

regulations, the Title V program and regulations, and the Illinois SIP that adopts, incorporates,

and/or implements these programs and regulations.

150. The Wood River Refinery has a Title V permit that has been issued by State of Illinois.

151. The Wood River Refinery owns and operates the following seven steam-assisted flares ("Seven Steam-Assisted Flares"):

- Alkylation
- Aromatics North
- Aromatics South
- Coker North
- Distilling East
- Low Sulfur Gasoline
- North Property

152. The Wood River Refinery also owns and operates the Distilling West flare

("Distilling West Flare"), which is an air-assisted flare.

153. The Seven Steam-Assisted Flares and the Distilling West flare shall collectively

be referred to as the "Eight Flares."

154. A flare is a combustion device that uses an uncontrolled volume of ambient air to

burn gases.

155. A steam-assisted flare is a flare that utilizes steam piped to the flare tip to assist in

combustion.
CLEAN AIR ACT CLAIM 1 Violation of PSD, Nonattainment NSR, and Illinois SIP Requirements Regarding Eight Flares

Failure to Apply for, Obtain, and Operate Pursuant to PSD and/or Nonattainment NSR Permits for Eight Flares

156. Plaintiffs reallege and incorporate by reference Paragraphs 1–155 as if fully set forth herein.

157. Upon information and belief, at various times from July 2009 to the present, WRB/P66 has commenced construction of a "major modification," as defined in the CAA and the Illinois SIP, at the Wood River Refinery. The modifications involved physical changes in or changes in the methods of operation of the Eight Flare systems of the Wood River Refinery, including physical changes in or changes in the methods of operation of the flare subheaders within process units, flare headers, flare stacks, and flare tips.

158. Upon information and belief, these modifications resulted in significant emissions increases of sulfur dioxide ("SO₂"), hydrogen sulfide ("H₂S"), volatile organic compounds ("VOCs"), and carbon monoxide ("CO") and a significant net emissions increase of these pollutants from the Eight Flares at the Wood River Refinery.

159. WRB/P66 did not apply for, obtain, or operate pursuant to either a PSD or a Nonattainment NSR permit, as applicable, for any of these modifications.

160. By failing to apply for, obtain, and operate pursuant to a PSD permit (for those pollutants where Roxana, Illinois, is either in attainment or unclassifiable), WRB/P66 failed to: (i) undergo a proper BACT determination for SO₂, H₂S, VOCs, and CO for the flare systems for each of the Eight Flares in connection with each major modification; (ii) install and operate BACT on the flare systems of each of the Eight Flares for the control of SO₂, H₂S, VOCs, and

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 38 of 90 Page ID #38

CO; (iii) demonstrate that the emissions increases from the modifications would not cause or contribute to violations of air quality standards; (iv) provide for review and public comment on the air quality impacts of the modifications; and (v) otherwise comply with the requirements of the PSD program and the Illinois SIP.

161. By failing to apply for, obtain, and operate pursuant to a Nonattainment NSR permit (for those pollutants where Roxana, Illinois, is in nonattainment), WRB/P66 failed to: (i) undergo a proper LAER determination for SO₂, VOCs, and CO for the flare systems for each of the Eight Flares in connection with each major modification; (ii) install and operate LAER on the flare systems of each of the Eight Flares for the control of SO₂, VOCs, and CO; (iii) secure emissions reductions (offsets) from existing sources in the same area where the Wood River Refinery is located such that there would be reasonable progress toward attainment of the applicable NAAQS; and (iv) otherwise comply with the requirements of the Nonattainment NSR program and the Illinois SIP.

- 162. The acts and/or omissions identified in this Claim constitute violations of:
 - (a) 42 U.S.C. § 7475;
 - (b) 40 C.F.R. §§ 52.21(a)(2)(iii) and 52.21(j)-52.21(r)(5);
 - (c) 42 U.S.C. \$ 7502(c)(5), 7503(a)–(c);
 - (d) 40 C.F.R. Part 51, Appendix S, Part IV, Conditions 1–4; and
 - (e) The federally enforceable Illinois SIP to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs (a)–(d).

163. Unless restrained by an Order of the Court, these violations of the CAA and its implementing regulations will continue.

164. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$37,500 per day for each violation between January 12, 2009, and November

2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 2 Violation of Title V and Illinois SIP Requirements Relating to PSD and Nonattainment NSR

Failure to Submit Timely Complete Title V Permit Applications and/or Supplement and Correct Previously Submitted Title V Permit Applications To Incorporate PSD and/or Nonattainment NSR Requirements; Operation without Valid Title V Permits Incorporating <u>PSD and/or Nonattainment NSR Requirements</u>

165. Plaintiffs reallege and incorporate by reference Paragraphs 1–164 as if fully set forth herein.

166. As alleged upon information and belief in Claim 1, WRB/P66 undertook activities constituting major modifications at the Wood River Refinery. These activities triggered requirements, *inter alia*, to obtain PSD and/or Nonattainment NSR permits establishing emissions limitations that meet BACT and/or LAER, to operate in compliance with BACT and/or LAER, and to otherwise comply with the requirements of the PSD and/or Nonattainment NSR permit programs.

167. WRB/P66 failed to submit complete and timely applications for Title V operating permits at the Wood River Refinery that included, *inter alia*, enforceable BACT and/or LAER limits, identified all applicable requirements, accurately certified compliance with such requirements, and contained a compliance plan for all applicable requirements for which the Wood River Refinery was not in compliance.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 40 of 90 Page ID #40

168. WRB/P66 continued and continues to operate the Wood River Refinery without

having valid Title V operating permits that require compliance with BACT and/or LAER or

contain a compliance plan for coming into compliance with BACT and/or LAER.

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

- (a) Title V of the CAA at 42 U.S.C. §§ 7661a(a), 7661b(c), 7661c(a);
- (b) Title V implementing regulations at 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 Illinois Title V program to the extent that it adopts, incorporates, and/or implements any of the federal provisions cited in Subparagraphs (a) and (b).

170. Unless restrained by an Order of the Court, these violations of the CAA and its implementing regulations will continue.

171. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42, WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil penalties of up to \$37,500 per day for each violation between January 12, 2009, and November 2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 3 Violation of NSPS and NESHAP/MACT Subpart A Requirement related to Flares; Violation of Title V Permit and the IEPA Provisions that Implement and Enforce these Requirements

Failure to Operate Eight Flares in a Manner Consistent with Good Air Pollution Control Practices

172. Plaintiffs reallege and incorporate by reference Paragraphs 1–171, as if fully set forth herein.

173. WRB/P66 is the owner and operator of Eight Flares as identified in

Paragraph 151. Each of WRB/P66's Eight Flares is an "affected facility" within the meaning of 40 C.F.R. §§ 60.2, 60.100(a), and 60.100a(1), and therefore is or was subject to: (i) the General Provisions of the NSPS found at Subpart A; (ii) NSPS Subpart J (40 C.F.R. §§ 60.100–109) and Subpart Ja (40 C.F.R. §§ 60.100a–109a); and (iii) the requirements in the Wood River Refinery's Title V permit that compel compliance with the NSPS Subparts A, J and Ja.

174. Each of WRB/P66's Eight Flares is also used as a control device for compliance with 40 C.F.R. Part 63, Subpart CC. Under Subpart CC, these Eight Flares are subject to the general provisions of Part 63 found at Subpart A.

175. Under 40 C.F.R. § 60.11(d) (found in Subpart A of Part 60) and 40 C.F.R.

§ 63.6(e)(1)(i) (found in Subpart A of Part 63), WRB/P66 was and is required, at all times, including periods of startup, shutdown, and malfunction, to the extent practicable, to maintain and operate its Eight Flares in a manner consistent with good air pollution control practice for minimizing emissions.

176. Good air pollution control practices for minimizing emissions at flares involve, *inter alia*, combusting essentially all molecules of hydrogen sulfide, hydrocarbons, and hazardous air pollutants ("HAPs") in the gases sent to the flares by ensuring that they have

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 42 of 90 Page ID #42

sufficient heating value and oxygen to allow for complete combustion. For steam-assisted flares, good air pollution control practices for minimizing emissions also involve, *inter alia*, injecting steam at a rate that maximizes flame stability and flare combustion efficiency. For air-assisted flares, good air pollution control practices for minimizing emissions also involve adjusting the rate of introduction of air that is assisting combustion ("Assist Air") based on Vent Gas flow.

177. In order to ensure that the gases sent to flares have sufficient heating value to ensure complete combustion, good air pollution control practices for minimizing emissions at flares involve, *inter alia*, monitoring, measuring, and/or calculating the net heating value ("NHV") of the gases in the combustion zone ("Combustion Zone Gas") of a flare. In addition, supplemental gas must be immediately available for addition to the gas being sent to the flare (the "Vent Gas") to ensure that the NHV of the Combustion Zone Gas is maintained at a level that ensures adequate flare combustion efficiency.

178. Good air pollution control practices for minimizing emissions at steam-assisted flares involve, *inter alia*, monitoring the Vent Gas flow rate and steam flow rate to the flare, calculating the ratio of the Vent Gas flow rate to the steam flow rate ("S/VG"), and having sufficient controls on the steam flow rate to enable increasing or decreasing it in order to optimize S/VG to minimize emissions.

179. Good air pollution control practices for minimizing emissions at air-assisted flares involve, *inter alia*, monitoring the Vent Gas flow rate and the Assist Air flow rate to the flare and having sufficient controls on the Assist Air flow rate to enable increasing or decreasing it in order to optimize combustion efficiency.

180. On numerous occasions from at least July 2009 through April 2013, WRB/P66 operated one or more of its Seven Steam-Assisted Flares with an excessively high S/VG. This

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 43 of 90 Page ID #43

excessively high S/VG increased the likelihood of flame quenching, reduced flare combustion efficiency, and resulted in emissions of uncombusted hydrogen sulfide, uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs), and carbon monoxide. On information and belief, these failures continued past April 2013.

181. On numerous occasions from at least July 2009 through April 2013, WRB/P66 operated its air-assisted Distilling West Flare with an excessively high Assist Air flow rate. This excessively high Assist Air flow rate increased the likelihood of flame quenching, reduced flare combustion efficiency, and resulted in emissions of uncombusted hydrogen sulfide, uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs), and carbon monoxide. On information and belief, these failures continued past April 2013.

182. On numerous occasions from at least July 2009 through April 2013, WRB/P66 operated one or more of its Eight Flares without sufficient Net Heating Value in the Combustion Zone Gas. This insufficient NHV reduced flare combustion efficiency and resulted in emissions to the atmosphere of uncombusted hydrogen sulfide, uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs), and carbon monoxide. On information and belief, these failures continued past April 2013.

183. From at least July 2009 through April 2013, WRB/P66 failed to install, or failed to utilize properly, Vent Gas flow monitors and steam flow monitors on one or more of its Seven Steam-Assisted Flares; failed to calculate S/VG at one or more of its Seven Steam-Assisted Flares; and failed to have sufficient controls on steam flow to maintain an S/VG that minimized emissions at one or more of its Seven Steam-Assisted Flares. On information and belief, these failures continued past April 2013.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 44 of 90 Page ID #44

184. From at least July 2009 through April 2013, WRB/P66 failed to install, or failed to utilize properly, Vent Gas flow monitors and Assist Air flow monitors on its Distilling West Flare and failed to have sufficient controls on Assist Air flow to minimize emissions at the Distilling West Flare. On information and belief, these failures continued past April 2013.

185. From at least July 2009 through April 2013, WRB/P66 failed to have, or failed to utilize, any equipment or monitoring system on one or more of its Eight Flares to enable WRB/P66 to calculate the NHV in the Combustion Zone Gas of its Eight Flares. In addition, WRB/P66 failed to have supplemental gas immediately available for addition to the Vent Gas. On information and belief, these failures continued past April 2013.

186. WRB/P66's operation of one or more of its Eight Flares with an insufficient NHV in the Combustion Zone Gas, without monitoring the NHV in the Combustion Zone Gas, without supplemental gas immediately available, with excessively high Steam-to-Vent-Gas ratios for the Seven Steam-Assist Flares, with excessively high Assist Air flow for the Distilling West Flare, without any (or without sufficient) monitors to measure and calculate S/VG for the Seven Steam-Assist Flares, without any (or without sufficient) monitors to measure and calculate the Assist Air flow rate for the Distilling West Flare, without sufficient controls on its steam to optimize the steam injection rate for the Seven Steam-Assist Flares, and without sufficient controls on its Air Assist to optimize the Air Assist rate for the Distilling West Flare violated the requirement to operate one or more of the Eight Flares in a manner consistent with good air pollution control practices for minimizing emissions.

187. 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) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.11(d) and 63.6(e)(1)(i) (good air pollution control practices requirement in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
- (c) Section 112's implementing regulations at Table 6 of Subpart CC of Part 63 of Title 40 of the Code of Federal Regulations, insofar as that Table relates to flares and requires compliance with 40 C.F.R. § 63.6(e)(1)(i);
- (d) Section 112's implementing regulations at Table 44 of Subpart UUU of Part 63 of Title 40 of the Code of Federal Regulations, insofar as that Table relates to flares and requires compliance with 40 C.F.R. § 63.6(e)(1)(i);
- (e) Those provisions of Wood River Refinery's Title V Permit that require compliance with the statutory and regulatory requirements identified in Subparagraphs 187(a)–(d);
- (f) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (g) The IEPA provisions that implement and enforce any of the federal provisions cited in Subparagraphs (a)–(f).
- 188. Unless restrained by an Order of the Court, these violations of the CAA and its

implementing regulations will continue.

189. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$37,500 per day for each violation between January 12, 2009, and November

2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 4 Violation of an NSPS and NESHAP/MACT Subpart A Requirement related to Flares, Title V Permits that Incorporate this Requirement, and the IEPA Provisions that Implement and Enforce these Requirements

Combusting Gas in Eight Flares that Has a Net Heating Value of Less than 300 BTU/scf

190. Plaintiffs reallege and incorporate by reference Paragraphs 1–189, as if fully set forth herein.

191. Each of WRB/P66's Eight Flares is subject to the requirements of 40 C.F.R. §§ 60.18(c)(3)(ii) and 63.11(b)(6)(ii). Under these provisions, WRB/P66 was and is required to maintain the net heating value of the gas being combusted in these Eight Flares at 300 British Thermal Units ("BTU") per standard cubic foot ("scf") or greater.

192. On numerous occasions from at least July 2009 through April 2013, WRB/P66

combusted gas in one or more of the Eight Flares that had a Net Heating Value of less than 300

BTU/scf. On information and belief, WRB/P66 continued, on numerous occasions from April

2013 to the present, to combust gas in one or more of these Eight Flares that had a Net Heating

Value of less than 300 BTU/scf.

- 193. 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) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(c)(3)(ii) and 63.11(b)(6)(ii) (BTU/scf requirement in Subpart A of Part 60 (NSPS) and Part 63 (NESHAP/MACT));
- (c) Section 111's implementing regulations at 40 C.F.R. §§ 60.592(a), 60.592a(a), 60.482-10(d), and 60.482-10a(d) (relevant provisions of NSPS's Subparts GGG, GGGa, VV and VVa), insofar as they relate to flares and require compliance with 40 C.F.R. § 60.18(c)(3)(ii);
- (d) Section 112's implementing regulations at 40 C.F.R. §§ 63.643(a)(1), 63.648(a), and 63.1566(a)(1)(i) (relevant provisions of NESHAP/MACT's Subparts CC and

UUU), insofar as they relate to flares and require compliance with 40 C.F.R. § 63.11(b)(6)(ii));

- (e) Those provisions of the Wood River Refinery's Title V Permit that require compliance with the statutory and regulatory requirements identified in Subparagraphs 192(a)–(d);
- (f) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (g) The IEPA provisions that implement and enforce any of the federal provisions cited in Subparagraphs (a)–(f).
- 194. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$37,500 per day for each violation between January 12, 2009, and November

2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT

CLAIM 5

Violation of an NSPS and NESHAP/MACT Subpart A Requirement related to Flares; Violation of Title V Permit and the IEPA Provisions that Implement and Enforce these Requirements

Failure to Monitor Eight Flares to Ensure that They Are Operated and Maintained in <u>Conformance with their Design</u>

195. Plaintiffs reallege and incorporate by reference Paragraphs 1–194, as if fully set

forth herein.

196. Each of WRB/P66's Eight Flares is subject to the requirements of 40 C.F.R.

§§ 60.18(d) and 63.11(b)(1). Under these provisions, WRB/P66 was and is required to monitor

each flare to ensure that it is operated and maintained in conformance with its design. Flares are

designed, in part, to achieve high combustion efficiency of VOCs.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 48 of 90 Page ID #48

197. As part of its design, a steam-assisted flare must be operated within a range of Steam-to-Vent-Gas ratios that, on the one hand, avoids smoking through an insufficient S/VG, and, on the other hand, avoids excessive S/VG. Both insufficient and excessive S/VG reduce VOC combustion efficiency below a flare's designed efficiency.

198. In order to operate a steam-assisted flare in conformance with its design, the Vent Gas flow to the flare must be monitored; the steam flow to the flare must be monitored; the ratio of the Vent Gas flow to steam flow must be calculated; and the steam flow must be subject to sufficient control to enable increasing or decreasing it in order to maintain a design-appropriate S/VG and a high VOC combustion efficiency consistent with design parameters.

199. As part of its design, an air-assisted flare must be operated within a range of Assist Air flow rates that, on the one hand, avoids smoking through an insufficient Assist Air flow rate, and, on the other hand, avoids excessive Assist Air. Both insufficient and excessive Assist Air reduce VOC combustion efficiency below a flare's designed efficiency.

200. In order to operate an air-assisted flare in conformance with its design, the Assist Air flow to the flare must be monitored and controlled based on the volume of Vent Gas.

201. From at least July 2009 to April 2013, for one of more of the Seven Steam-Assisted Flares, WRB/P66 failed to install and/or properly operate Vent Gas flow monitors and steam flow monitors; failed to calculate Steam-to-Vent-Gas ratios; and failed to have sufficient controls on steam flow to maintain Steam-to-Vent-Gas ratios within design parameters. On information and belief, these failures continued past April 2013 at one or more of the Eight Flares.

202. From at least July 2009 to April 2013, for the Distilling West Flare, WRB/P66 failed to install and/or properly operate Assist Air flow monitors and to control the rate of Assist

Air within design parameters. On information and belief, these failures continued past

April 2013 at the Distilling West Flare.

- 203. 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) Section 111's and 112's implementing regulations at 40 C.F.R. §§ 60.18(d), 63.11(b)(1);
- (c) Section 111's implementing regulations at 40 C.F.R. §§ 60.592(a), 60.592a(a), 60.482-10(d), 60.482-10a(d), 60.482-10(e), and 60.482-10a(e) (relevant provisions of NSPS's Subparts GGG, GGGa, VV and VVa) insofar as they relate to flares and require compliance with 40 C.F.R. § 60.18(d);
- (d) Section 112's implementing regulations at 40 C.F.R. §§ 63.643(a)(1), 63.648(a), and 63.1566(a)(1)(i) (relevant provisions of NESHAP/MACT's Subparts CC and UUU) insofar as they relate to flares and require compliance with 40 C.F.R. § 63.11(b)(1);
- (e) Those provisions of Wood River Refinery's Title V Permit that requires compliance with the statutory and regulatory requirements identified in Subparagraphs (a)–(d);
- (f) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (g) The IEPA provisions that implement and enforce any of the federal provisions cited in Subparagraphs (a)–(f).
- 204. Unless restrained by an Order of the Court, these violations of the CAA and its

implementing regulations will continue.

205. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$37,500 per day for each violation between January 12, 2009, and November

2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 6 Illinois SIP

Violation of Illinois SIP Requirement Caused by Insufficient Heating Value in Combustion Zone Gas and Oversteaming of Seven Steam-Assisted Flares

206. Plaintiffs reallege and incorporate by reference Paragraphs 1–205, as if fully set forth herein.

207. At various times from July 2009 to April 2013, WRB/P66 operated the Seven Steam-Assisted Flares with an excessively high steam-to-Vent Gas ratio and, on information and belief, with an insufficient NHV in the Combustion Zone Gas. This operation increased the likelihood of flame quenching, reduced flare combustion efficiency, and resulted in emissions to the atmosphere of uncombusted hydrogen sulfide, uncombusted and partially-combusted HAPs and hydrocarbons (including VOCs), and carbon monoxide. On information and belief, this operation caused the discharge of organic materials in excess of 100 ppm equivalent methane (molecular weight 16.0) into the atmosphere and these emissions were not either: (i) limited to eight (8) pounds per hour of organic material; or (ii) reduced by 85%. On information and belief, this operation continued past April 2013 at one or more of the Eight Flares

208. The acts and omissions identified in this Claim constitute violations of 35 Ill. Adm. Code 219.301 and 219.302; those provisions of the Wood River Refinery's Title V permit that require compliance with the SIP provision identified in this Claim; the prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and the provisions found in the federally enforceable Illinois Title V program that correspond to the prohibitions in 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

209. Unless restrained by an Order of the Court, these violations of the CAA and its implementing regulations will continue.

210. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42, WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil penalties of up to \$37,500 per day for each violation between January 12, 2009, and November 2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 7

Violation of NSPS Subparts A and J Requirements related to CEMS; Violation of Title V Permit and the IEPA Provisions that Implement and Enforce these Requirements

Failure to Continuously Operate CEMS

211. Plaintiffs reallege and incorporate by reference Paragraphs 1–210, as if fully set forth herein.

212. WRB/P66 is the owner and operator of continuous emissions monitoring systems ("CEMS") on various process units at the Wood River Refinery that are subject to the requirements of the NSPS at Subparts A, J and Ja.

213. On numerous occasions between 2006 and the present, WRB/P66 failed to comply with the requirement to continuously operate a CEMS on the following units, except for periods of system breakdowns, repairs, calibration checks, and zero and span adjustments: (1) the sulfur recovery plants at the north oxidizer and the south oxidizer; (2) the fuel gas combustion devices known as Boiler 15, CR-3 H-4, the boiler associated with the Aromatics SCR, and the heaters/boilers that are fueled by the Main Plant and those that are fueled by Distilling West; (3) the Alkylation and North Property flares; and (4) FCCUs 1 and 2.

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

(a) Section 111 of the CAA, 42 U.S.C. § 7411;

- (b) Section 111's implementing regulations at 40 C.F.R. \$ 60.13(e); 60.105(a)(2), (a)(4), (a)(5); 60.105a(f)–(h); 60.106a(a)(1); 60.107a(a); and 60.107a(a)(2);
- (c) Those provisions of the Refinery's Title V Permit that require compliance with 40 C.F.R. \S 60.13(e); 60.105(a)(2), (a)(4), (a)(5); 60.105a(f)–(h); 60.106a(a)(1); 60.107a(a); and 60.107a(a)(2);
- (d) The prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and
- (e) The IEPA provisions that implement and enforce any of the federal provisions cited in Subparagraphs (a)–(d).
- 215. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$32,500 per day for each violation between March 16, 2004, and January 12,

2009; up to \$37,500 per day for each violation between January 12, 2009, and November 2,

2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT

CLAIM 8

Violation of the Benzene Waste Operations NESHAP (40 C.F.R. Part 61, Subpart FF); Violation of Title V Permit and the IEPA Provisions that Implement and Enforce these Requirements

Failure to Comply with Various Provisions of 40 C.F.R. Part 61, Subpart FF

216. Plaintiffs reallege and incorporate by reference Paragraphs 1–215, as if fully set

forth herein.

217. The Wood River Refinery is a "petroleum refinery" within the meaning of the

Benzene Waste Operations NESHAP ("BWON"). 40 C.F.R. § 61.341. WRB/P66 is therefore

subject to the BWON. 40 C.F.R. § 61.340(a).

218. WRB/P66 has elected to comply with the BWON by means of the option found at

40 C.F.R. § 61.342(e) (the "6 BQ Option").

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 53 of 90 Page ID #53

219. WRB/P66 owns and operates the following "waste management units" within the meaning of the BWON, 40 C.F.R. § 61.341: Lower Lift Station; Upper Lift Station; Tank A149; Tank B121; two dissolved nitrogen flotation ("DNF") tanks; and corrugated plate interceptors ("CPIs").

220. The following waste management units are "tanks" within the meaning of the BWON, 40 C.F.R. § 61.341: The 1st and 2nd stage neutralization basins of the Upper Lift Station; Tank A149; Tank B121; and the two DNF Tanks (collectively "Relevant BWON Tanks").

221. The Lower Lift Station is an "individual drain system" within the meaning of the BWON, 40 C.F.R. § 61.341.

222. The CPIs are "oil-water separators" within the meaning of the BWON, 40 C.F.R. § 61.341.

223. On and before June 19, 2014, WRB/P66 failed to design the covers and all openings on the Relevant BWON Tanks, the Lower Lift Station, and the CPIs with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, in violation of 40 C.F.R. §§ 61.343(a)(1)(i), 61.346(a)(1)(i), and 61.347(a)(1)(i)(A), respectively.

224. On and before June 19, 2014, WRB/P66 failed to seal all openings in CPI # 56, in violation of 40 C.F.R. § 61.348(e).

225. On and before June 19, 2014, WRB/P66 failed to maintain the gaskets on the bleeder vents of Tank A149, in violation of 40 C.F.R. §§ 60.112b(a)(2)(ii) and 61.351(a)(2).

226. On and before June 19, 2014, WRB/P66 failed to monitor each of the seams on the DNF Tank covers, in violation of 40 C.F.R. § 61.343(a)(1)(i).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 54 of 90 Page ID #54

227. For calendar year 2014, WRB/P66 failed to comply with the 6 BQ Option of the BWON, in violation of 40 C.F.R. § 61.342(e).

228. The acts and omissions identified in this Claim also constitute violations of: (*i*) those provisions of the Wood River Refinery's Title V permit that require compliance with the BWON provision identified in this Claim; (*ii*) the prohibitions against violating the terms of a Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and (*iii*) the provisions found in the federally enforceable Illinois Title V program that correspond to the prohibitions in 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

229. Unless restrained by an Order of the Court, these violations of the CAA and its implementing regulations will continue.

230. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42, WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil penalties of up to \$32,500 per day for each violation between March 16, 2004, and January 12, 2009; up to \$37,500 per day for each violation between January 12, 2009, and November 2, 2015; and up to \$97,229 per day for each violation after November 2, 2015.

CLEAN AIR ACT CLAIM 9

Violation of NSPS Subpart GGG and GGGa Requirements Related to Equipment Leaks; Violation of Title V Permit and the IEPA Provisions that Implement and Enforce these Requirements

Failure to Comply with Specified Equipment Leak Requirements

231. Plaintiffs reallege and incorporate by reference Paragraphs 1–230, as if fully set forth herein.

232. At all times relevant to this Complaint, WRB/P66 has owned and operated process units at the Wood River Refinery that are subject to the NSPS for Equipment Leaks of VOC in Petroleum Refineries found at Subparts GGG and GGGa of 40 C.F.R. Part 60. 40 C.F.R. §§ 60.590–60.593 (GGG); 40 C.F.R. §§ 60.590a–60.593a (GGGa).

233. In relevant part, Subpart GGG and GGGa require facilities that are subject to Subpart GGG and GGGa to comply with 40 C.F.R. Part 60, Subparts VV and VVa. 40 C.F.R. §§ 60.592; 60.592a. Subpart VV is found at 40 C.F.R. §§ 60.480–60.489 and Subpart VVa is found at 40 C.F.R. §§ 60.480a–60.489a.

234. On numerous occasions on and before October 2010, WRB/P66 failed to perform Method 21 correctly, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.485(b)(1), 60.485a(b)(1), and Section 8.3.1 of Method 21 of Appendix A-7 of 40 C.F.R. Part 60.

235. On numerous occasions on and before October 2010, WRB/P66 failed to conduct monthly monitoring on insulated valves in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.482-7(a)(1), 60.482-7a(a)(1).

236. On numerous occasions on and before October 2010, WRB/P66 failed to conduct monthly monitoring on valves because it had improperly designated these valves as difficult-to-

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 56 of 90 Page ID #56

monitor, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.482-7(a)(1), 60.482-7a(a)(1).

237. On numerous occasions on and before December 2014, WRB/P66 failed to equip open-ended lines unit with a cap, blind flange, plug, or second valve, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.482-6(a)(1), 60.482-6a(a)(1).

238. On numerous occasions on and before December 2014, WRB/P66 failed to include pieces of equipment in its LDAR program; failed to record the identification numbers of these pieces of equipment; and failed to periodically monitor these pieces of equipment, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.486(e)(1); 60.482-7(a)(1); 60.482-2(a)(1); 60.486a(e)(1); 60.482-7a(a)(1); 60.482-2a(a)(1).

239. On at least one occasion on or before January 2013, WRB/P66 failed to have an identifying tag on a piece of equipment subject to LDAR, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.486(e)(1); 60.486a(e)(1).

240. In two semi-annual reports in 2012 and/or 2013 required under Subparts VV and VVa, WRB/P66 failed to include information explaining each delay of repair and why a process unit shutdown was technically infeasible, in violation of Section 111 of the CAA, 42 U.S.C. § 7411, and the implementing regulations at 40 C.F.R. §§ 60.487(c)(2)(vii); 60.487a(c)(2)(vii).

241. The acts and omissions identified in this Claim also constitute violations of: (*i*) those provisions of the Wood River Refinery's Title V permit that require compliance with the NSPS provisions identified in this Claim; (*ii*) the prohibitions against violating the terms of a

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 57 of 90 Page ID #57

Title V permit, which are found at 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b); and *(iii)* the provisions found in the federally enforceable Illinois Title V program that correspond to the prohibitions in 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b).

242. For the violations asserted in this Claim, pursuant to Section 113(b) of the CAA,

42 U.S.C. § 7413(b), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42,

WRB/P66 is subject to injunctive relief, mitigation of the effects of excess emissions, and civil

penalties of up to \$32,500 per day for each violation between March 16, 2004, and January 12,

2009; up to \$37,500 per day for each violation between January 12, 2009, and November 2,

2015; and up to \$97,229 per day for each violation after November 2, 2015.

CERCLA and EPCRA CLAIM 10 (UNITED STATES ONLY) Violation of CERCLA and EPCRA Emergency Notification Requirements

Failure to Notify National Response Center, Applicable SERC, and/or Applicable LEPC of Releases of Sulfur Dioxide and Hydrogen Sulfide in Excess of the Reportable Quantity Based on Insufficient Heating Value in Combustion Zone Gas and Oversteaming of Seven Steam-Assisted Flares at the Wood River Refinery

243. The United States realleges and incorporates by reference Paragraphs 1–242, as if fully set forth herein.

244. The Wood River Refinery is an "onshore facility" within the meaning of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), and a "facility" within the meaning of Section 329(4) of EPCRA, 42 U.S.C. § 11049(4). WRB/P66 was and is "in charge of" this facility as that phrase is used in Section 103 of CERCLA, 42 U.S.C. § 9603(a), and was and is the "owner or operator" of this facility as that phrase is used in Section 304 of EPCRA, 42 U.S.C. § 11004.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 58 of 90 Page ID #58

245. Hazardous substances have been deposited, stored, disposed of, placed, or otherwise come to be located at the Wood River Refinery, 42 U.S.C. § 9601(9), and hazardous chemicals are produced, used, or stored at the Wood River Refinery. 42 U.S.C. § 11004(a).

246. Hydrogen sulfide is a "hazardous substance" for purposes of CERCLA and EPRCA emergency notification requirements. 42 U.S.C. § 9601(14); 42 U.S.C. §§ 11004(a),(b); 40 C.F.R. § 302.4 at Table 302.4; 40 C.F.R. Part 355, Appendix A. The reportable quantity of hydrogen sulfide is 100 pounds, as listed in 40 C.F.R. § 302.4, Table 302.4 and 40 C.F.R. Part 355, Appendix A.

247. Sulfur dioxide is an "extremely hazardous substance" for purposes of EPCRA emergency notification requirements. 42 U.S.C. §§ 11004(a),(b); 40 C.F.R. Part 355, Appendix A. The reportable quantity of sulfur dioxide is 500 pounds, as listed at 40 C.F.R. Part 355, Appendix A.

248. On information and belief, on numerous occasions from July 2009 to the present, the acts and omissions alleged in Paragraphs 180 and 182 resulted in releases of hydrogen sulfide and sulfur dioxide in excess of the reportable quantity of those substances.

249. The releases were not "federally permitted releases" as that term is used in Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), and 40 C.F.R. § 302.6, and defined in Section 101(10) of CERCLA, 42 U.S.C. § 9601(10).

250. WRB/P66 failed to immediately notify the National Response Center of the releases of hydrogen sulfide identified in Paragraph 248 as soon as it had knowledge of the releases within the meaning of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a).

251. WRB/P66 failed to immediately notify the applicable SERC and LEPC of the releases of hydrogen sulfide and sulfur dioxide identified in Paragraph 248 as soon as it had

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 59 of 90 Page ID #59

knowledge of the releases within the meaning of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a).

252. The acts and omissions identified in this Claim constitute violations of Section 103(a) of CERCLA, 42 U.S.C. § 9603(a); its implementing regulation at 40 C.F.R. § 302.6(a); Sections 304(a) and (b) of EPCRA, 42 U.S.C. §§ 11004(a) and (b); and their implementing regulation at 40 C.F.R. 355.40(b).

253. For the violations asserted in this Claim, pursuant to Section 109(c)(1) of CERCLA, 42 U.S.C. § 9609(c)(1), Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3), and the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended, WRB/P66 is subject to civil penalties of up to \$37,500 per day for each violation between January 13, 2009, and November 2, 2015; and up to \$55,907 per day for each violation after November 2, 2015. Additionally, in the case of a second or subsequent violation, WRB/P66 is subject to a civil penalty of up to \$107,500 per day for each second or subsequent violation between January 13, 2009, and December 6, 2013; up to \$117,500 per day for each second or subsequent violation between January 13, 2009, and December 7, 2013, and November 2, 2015; and up to \$164,722 per day for each second or subsequent violation between January 13, 2009, and December 7, 2013, and November 2, 2015; and up to \$164,722 per day for each second or subsequent violation after November 2, 2015.

* * * *

PRAYER FOR RELIEF

WHEREFORE, based upon the allegations in Paragraphs 1–253 of this Complaint, and pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 109(c)(1) of CERCLA, 42 U.S.C. § 9609(c)(1), Section 325(b)(3) of EPCRA, 42 U.S.C. § 11045(b)(3), the Civil Penalties Inflation Act of 1990, as amended, and 415 ILCS 5/42, Plaintiffs request that this Court:

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 60 of 90 Page ID #60

1. Permanently enjoin WRB/P66 from operating the Wood River Refinery except in accordance with the CAA and all applicable federal regulations and applicable federally enforceable state regulations;

2. Order WRB/P66 to operate the Wood River Refinery in compliance with the CAA statutory and regulatory requirements set forth herein, the applicable SIP requirements, and the PSD, Nonattainment NSR, and Title V permits applicable to the Wood River Refinery;

3. Order WRB/P66 to take other appropriate actions to remedy, mitigate, and offset the harm to public health and the environment caused by the violations of the CAA alleged herein;

4. Assess a civil penalty against WRB/P66 of up to \$32,500 for each violation of the CAA, CERCLA, and EPCRA occurring between March 16, 2004, and January 12, 2009; up to \$37,500 per day for each violation between January 12, 2009, and November 2, 2015; and up to \$97,229 per day for each violation after November 2, 2015. Additionally, in the case of a second or subsequent violation of CERCLA and EPCRA, assess a civil penalty against WRB/P66 of up to \$107,500 per day for each second or subsequent violation between January 13, 2009, and December 6, 2013; up to \$117,500 per day for each second or subsequent violation between January 13, 2009, and subsequent violation after November 2, 2015; and up to \$164,722 per day for each second or subsequent violation after November 2, 2015.

- 5. Award Plaintiffs their costs of this action; and
- 6. Grant such other relief as the Court deems just and proper.

Respectfully Submitted,

UNITED STATES OF AMERICA

<u>s/Jeffrey H. Wood</u> JEFFREY H. WOOD Acting Assistant Attorney General Environment and Natural Resources Division United States Department of Justice

<u>s/Annette M. Lang</u> ANNETTE M. LANG Senior Counsel Environmental Enforcement Section Environment and Natural Resources Division Department of Justice P.O. Box 7611 Washington, D.C. 20044-7611 (202) 514-4213 (202) 616-6584 (fax) annette.lang@usdoj.gov

STEVEN D. WEINHOEFT UNITED STATES ATTORNEY

s/Nathan D. Stump NATHAN D. STUMP Assistant United States Attorney 9 Executive Dr. Fairview Heights, Illinois 62208 Tel: (618) 628-3700 Fax: (618) 628-3720 nathan.stump@usdoj.gov

OF COUNSEL: William Wagner Mary McAuliffe Associate Regional Counsels U.S. EPA Region 5 77 W. Jackson Blvd. Chicago, IL 60604 Complaint in the matter of *United States and State of Illinois v. Phillips 66 Co. and WRB Refining, LP.*, United States District Court for the Southern District of Illinois.

Respectfully Submitted,

STATE OF ILLINOIS

LISA MADIGAN, Attorney General of the State of Illinois

MATTHEW J. DUNN, Chief Environmental Enforcement/ Asbestos Litigation Division

<u>s/Andrew Armstrong***</u> ANDREW ARMSTRONG Chief, Environmental Bureau Illinois Attorney General's Office 500 South Second Street Springfield, Illinois 62706 Tel: (217) 782-9031 Email: <u>AArmstrong@atg.state.il.us</u>

*** Signed with permission.

United States, et al. v. WRB Refining, et al. (S.D. Illinois)

COMPLAINT EXHIBIT 1

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 64 of 90 Page ID #64



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

JUN 3 0 2014

REPLY TO THE ATTENTION OF:

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Mike D. Bechtol Director, Environmental Wood River Refinery 900 S. Central Ave. Roxana, Illinois 62084

Re: Notice of Violation and Finding of Violation WRB Refining LP Wood River Refinery Roxana, Illinois

Dear Mr. Bechtol:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to WRB Refining LP's Wood River Refinery ("facility" or "you") under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). We find that you have violated the Clean Air Act ("the Act") and certain associated federal and state pollution control regulations.

Section 113 of the Act gives us several enforcement options. The options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

Section 113 of the Act also provides you with the opportunity to request a conference with us to discuss the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for the facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contact in this matter is Gregory Gehrig. You may call him at (312) 886-4434 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely, George T. Czerniak Director Air and Radiation Division

Enclosure

cc: Eric Jones, Illinois Environmental Protection Agency

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 66 of 90 Page ID #66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

)

IN THE MATTER OF:

WRB Refining LP Wood River Refinery Roxana, Illinois

Proceedings Pursuant to the Clean Air Act 42 U.S.C. §§ 7401 et seq.

NOTICE OF VIOLATION and FINDING OF VIOLATION EPA-5-14-IL-04

NOTICE AND FINDING OF VIOLATION

WRB Refining LP owns and operates a petroleum refinery located at 900 S. Central Ave. in Roxana, Illinois, known as the Wood River Refinery (facility or refinery). WRB Refining LP is a limited partnership jointly owned by Phillips 66 and Cenovus Energy Inc. Phillips 66 is the operator and managing partner of WRB Refining LP.

The U.S. Environmental Protection Agency is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify the refinery that we have found violations of the Clean Air Act (CAA or Act) and associated federal and state regulations at 10 of the 12 flares used at the facility to control air pollution emissions generated from refinery operations. In the operation of these 10 flares, the refinery has violated certain General Provisions of both the New Source Performance Standards, 40 C.F.R. Part 60 (NSPS), and the National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 C.F.R. Part 63 (NESHAPs), as well as the NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, 40 C.F.R. Part 60, Subparts VV and VVa. WRB has also emitted pollutants at these flares in excess of emissions allowed under the Illinois State Implementation Plan (SIP).

I. Statutory and Regulatory Background

This NOV/FOV is based on the following statutory and regulatory provisions:

Clean Air Act

1. The Clean Air Act is 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. Section 101(b)(1) of the Act, 42 U.S.C. § 7401(b)(1).

Section 111 of the Act, New Source Performance Standards

2. Section 111(b) of the Act, 42 U.S.C. § 7411(b), requires EPA to publish a list of categories of stationary sources and, within a year after the inclusion of a category of stationary sources in the list, to publish proposed regulations establishing Federal standards of performance for new sources within the source category.

3. Section 111(f) of the Act, 42 U.S.C. § 7411(f), requires the promulgation of standards of performance for new stationary sources.

4. Section 111(e) of the Act, 42 U.S.C. § 7411(e), prohibits the operation of a new source in violation of any applicable standard of performance.

NSPS General Provisions, 40 C.F.R. Part 60, Subpart A

5. EPA proposed General Provisions to the New Source Performance Standards (NSPS Subpart A) on August 17, 1971. See 36 Fed. Reg. 15704. EPA promulgated NSPS Subpart A on December 23, 1971. See 36 Fed. Reg. 24877. The subpart has been subsequently amended. NSPS Subpart A is codified at 40 C.F.R. §§ 60.1 – 60.19.

6. NSPS Subpart A at 40 C.F.R. § 60.11(d) requires that "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 practice for minimizing emissions."

7. NSPS Subpart A at 40 C.F.R. § 60.18(c)(3)(ii) requires that flare owner/operators only combust gases that meet certain heat content specifications. For steam assisted and air assisted flares, the minimum heat content for the gases being combusted is 300 BTU/scf. For non-assisted flares, the minimum heat content for the gases being combusted is 200 BTU/scf.

NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI), 40 C.F.R. Part 60, Subpart VV

8. On October 18, 1983, EPA promulgated the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 (NSPS Subpart VV). *See* 48 Fed. Reg. 48335. NSPS Subpart VV has been subsequently amended. The subpart is codified at 40 C.F.R. §§ 60.480 – 60.489.

9. NSPS Subpart VV at 40 C.F.R. § 60.482-10(d) provides that flares used to comply with Subpart VV must comply with 40 C.F.R. § 60.18 of Part 60, Subpart A, General Provisions.

10. NSPS Subpart VV at 40 C.F.R. § 60.482-10(e) provides that owners of control devices, including flares, that are used to comply with the requirements of Subpart VV, "shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs."

NSPS for Equipment Leaks of VOC in SOCMI for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, 40 C.F.R. Part 60, Subpart VVa

11. On November 16, 2007, EPA promulgated the Standards of Performance for Equipment Leaks of VOC in the SOCMI for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (NSPS Subpart VVa). *See* 72 Fed. Reg. 64883. NSPS Subpart VVa has been subsequently amended. The subpart is codified at 40 C.F.R. §§ 60.480a - 60.489a.

12. NSPS Subpart VVa at 40 C.F.R. § 60.482-10a(d) provides that flares used to comply with Subpart VVa must comply with 40 C.F.R. § 60.18 of Part 60, Subpart A, General Provisions.

13. NSPS Subpart VVa at 40 C.F.R. § 60.482-10a(e) provides that owners of control devices, including flares, that are used to comply with the requirements of Subpart VVa, "shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs."

NSPS for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, 40 C.F.R. Part 60, Subpart GGGa

14. On November 16, 2007, EPA promulgated the final standards of performance for equipment leaks of volatile organic compounds (VOC) in the petroleum refining industry for which construction, reconstruction, or modification commenced after November 7, 2006 (NSPS Subpart GGGa). *See* 72 Fed. Reg. 64883. Subpart GGGa has been subsequently amended. The subpart is codified at 40 C.F.R. §§ 60.590a – 60.593a.

15. Pursuant to 40 C.F.R. § 60.592a(a), each owner or operator subject to Subpart GGGa must comply with 40 C.F.R. Part 60, Subpart VVa, at §§ 60.482-1a to 60.482-10a. Section 60.482-10a(d) requires compliance with Part 60, Subpart A, § 60.18, which sets forth requirements for flares, including exit velocity, net heating value of gas being flared, operation with no visible emissions, and monitoring to ensure compliance with design. Further, because Subpart GGGa is a NSPS subpart, the general provisions of Subpart A apply to sources subject to Subpart GGGa. Therefore, 40 C.F.R. § 60.11(d), the provision that requires compliance with good air pollution control practices for minimizing emissions, applies to sources subject to Subpart GGGa.

Section 112 of the Act, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories

16. Section 112(b) of the Act, 42 U.S.C. § 7412(b) lists 188 Hazardous Air Pollutants (HAPs) that cause adverse health or environmental effects.

17. Section 112(d)(1) of the Act, 42 U.S.C. § 7412(d), requires EPA to promulgate regulations establishing emissions standards for each category or subcategory of major and area sources of HAPs that are listed for regulation pursuant to subsection (c) of Section 112.

18. Section 112(d)(2) of the Act requires that emission standards promulgated under Section 112(d)(1) require "the maximum degree of reduction in emissions of the hazardous air pollutants . . . that the Administrator, 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 new or existing sources in the category or subcategory to which such emission standard applies . . ." (hereinafter, "MACT").

NESHAP for Source Categories, General Provisions, 40 C.F.R. Part 63, Subpart A

19. On March 16, 1994, U.S. EPA promulgated the General Provisions to Part 63 at 40 C.F.R. Part 63, Subpart A, §§ 63.1 - 63.16. *See* 59 Fed. Reg. 12408. The provisions have been subsequently amended.

20. 40 C.F.R. § 63.1(a)(4)(i) provides that each standard in 40 C.F.R. Part 63 "must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard."

21. 40 C.F.R. § 63.6(e)(1)(i) requires that "[a]t 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 and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions."

22. 40 C.F.R. § 63.11(b)(6)(ii) requires that flare owner/operators only combust gases that meet certain heat content specifications. For steam assisted and air assisted flares, the minimum heat content for the gases being combusted is 300 BTU/scf. For non-assisted flares, the minimum heat content for the gases being combusted is 200 BTU/scf.

NESHAP for Petroleum Refineries, 40 C.F.R. 63, Subpart CC

23. EPA promulgated National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (the Refinery MACT) on August 18, 1995. *See* 60 Fed. Reg. 43244. The subpart has been subsequently amended. The Refinery MACT is codified at 40 C.F.R. §§ 63.640 - 63.656.

24. 40 C.F.R. § 63.640(c) provides that for "the purpose of this subpart, the affected source shall comprise all emission points, in combination," listed at 40 C.F.R. § 63.640(c)(1) through (c)(7). These emission points include miscellaneous process vents and all equipment leaks.

25. 40 C.F.R. § 63.648(a) provides that "[e]ach owner or operator of an existing source subject to the provisions of this subpart shall comply with the provisions of 40 C.F.R. Part 60, Subpart VV "

26. Table 6 to the Refinery MACT, titled "General Provisions Applicability to Subpart CC," specifically provides that Sections 63.6(e) and 63.11(b) (among others) of the General Provisions apply to affected sources under the Refinery MACT (except for "Group 2 emission points").

Illinois State Implementation Plan (Illinois SIP)

27. The Illinois SIP at Illinois Administrative Code (IAC) §§ 219.301 and 219.302 prohibit the release of volatile organic material (VOM) waste gas streams containing more than 8 pounds per hour (lb/hr) organic material unless the waste stream is reduced to less than 10 parts per million (ppm) of VOM, or treated with a device that achieves a combustion efficiency of 85% or more. 17 Ill. Reg. 16918, September 27, 1993.

II. Flare Efficiency Studies

28. In July 1983, the EPA released report "EPA 600/2-83-052," titled *Flare Efficiency Study* (1983 Flare Study). This study, partially funded by EPA and the Chemical Manufacturers Association, included various tests to determine the combustion efficiency and hydrocarbon destruction efficiency of flares under a variety of operating conditions. Certain tests were conducted on a steam-assisted flare provided by John Zink Company. The tests performed included a wide range of steam flows and steam-to-vent gas ratios. The data collected showed decreasing combustion efficiencies when the steam-to-vent gas ratio was above 3.5. The tests showed the following efficiencies at the following steam-to-vent gas (S/VG) ratios:

Pounds of Steam to	Combustion
One Pound of Vent Gas	Efficiency (%)
3.45	99.7
5.67	82.18
6.86	68.95

The report concluded that excessive steam-to-vent gas ratios caused steam quenching of the flame during the tests, which resulted in lower combustion efficiency.

The EPA has identified other publicly available studies and EPA reports that evaluate how flare combustion efficiency is affected by steam addition. The conclusions of these studies support those of EPA 600/2-83-052. In particular, several recent studies have been conducted with the use of passive Fourier transform infrared spectroscopy that verify the conclusion reached in EPA 600/2-83-052.

29. For air assisted flares, EPA, technical, and flare manufacturer documents require that an appropriate amount of air be mixed with the vent gases. As the vent gas flow increases, the air supplied for combustion and mixing must also increase. However, excess air can extinguish combustion. Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources (aka AP-42; Fifth Edition, January 1995, EPA) states in Chapter 13.5, 'The degree of combustion depends largely on the rate and extent of fuel-air mixing.'

III. Factual Allegations

30. WRB Refining LP (WRB) owns and operates the refinery. WRB is a limited partnership jointly owned by Phillips 66 and Cenovus Energy Inc. Phillips 66 is a Delaware corporation located in Houston, Texas. Cenovus Energy Inc. is a Canadian corporation located in Calgary, Canada. Phillips 66 is the operator and managing partner of WRB. The refinery operates 12 flares at the facility for the purpose of controlling air pollution emissions generated from refinery operations.

31. By letters dated August 9, 2013, September 13 and June 13, 2014, WRB provided information and documentation to EPA in response to EPA's May 3, 2013 information request. The information included a list of its flares identifying applicable regulations, flare operating documents and data for the period from January 2006 to May 2013. Although specifically requested in the May 3, 2013 information request, WRB only produced flare manufacturers' operating manuals for 3 of the 12 flares (Coker North Flare, Hydrogen Plant 2 Flare and North Property Flare). The flares and certain applicable regulations, as provided by WRB, are set forth below:

	Applicable Regulation		
Flare	NSPS GGGa	NESHAP CC	35 IAC 219.301/302
a. Alkylation Flare	X	X	X
b. Aromatics North Flare	X	X	X
c. Aromatics South Flare	X	X	X
d. Coker North Flare	X	X	X
e. Distilling Flare	Х	X	X
f. Distilling West Flare	X	X	X
g. Hydrogen Plant 1 Flare			X,
h. Hydrogen Plant 2 Flare	X	X	X
i. Low Sulfur Gasoline (LSG) Flare	X	X	X
j. North Property (NP) Flare	X	X	Х
k. VOC Flare and Spare			X

32. WRB produced data that indicate that the refinery supplied excess steam to its flares. The refinery reduced the combustion efficiency of the following flares on a consistent basis below 85% and released a waste gas stream to the environment with an organic material concentration greater than 10 ppm and at a rate exceeding 8 lb/hr. Information provided by the 1983 Flare Study indicates this prohibited condition occurs when the S/VG ratio exceeds 5.67. PFTIR testing at refineries shows that this efficiency occurs at even lower S/VG ratios. WRB operated its flares with the S/VG ratio exceeding 5.67 for the period of July 1, 2009 through May 9, 2013 as shown below:

a.	Alkylation Flare	6,267 hours
b.	Aromatics North Flare	18 hours
c.	Aromatics South Flare	46 hours
d.	Coker North Flare	72 hours
e.	Distilling Flare	34 hours
f.	Hydrogen Plant 2 Flare	14,151 hours
g.	LSG Flare	31,844 hours
h.	NP Flare	8,144 hours

33. WRB produced data that indicate the NHV values for its flares during the operating period of July 1, 2009 through May 9, 2013. At various times during that period the NHV values were below the requirement for steam-assisted or air-assisted flares of 300 BTU/scf as specified in 40 C.F.R. § 60.18(c)(3)(ii) and 40 C.F.R. § 63.11(b)(6)(ii). The refinery operated its flares below the required NHV value of 300 BTU/scf for the period of July 1, 2009 through May 9, 2013 as shown below:

a.	Alkylation Flare	237 hours
b.	Aromatics North Flare	2 hours
c.	Aromatics South Flare	21 hours
d.	Coker North Flare	25 hours
e.	Hydrogen Plant 2 Flare	258 hours

34. WRB produced data that indicate that the refinery failed to vary the addition of air to match the variations in vent gas flow at the Distilling West Flare from July 1, 2009 to May 9, 2013.

IV. Alleged Violations

NSPS

35. The refinery's failure to possess and implement flare specific or generally available documents that prescribe or recommend the amount of steam or air to add to the flare is a failure to meet the requirement to use good air pollution control practices to minimize emissions as required by 40 C.F.R. § 60.11(d). As described in Paragraphs 6, 15, 28, 29, 31, 32, and 34, these violations occurred at the following flares:

a. Alkylation Flare

b. Aromatics North Flare
- c. Aromatics South Flare
- d. Coker North Flare (manual produced but combustion efficiency below 85%)
- e. Distilling Flare
- f. Distilling West Flare
- g. Hydrogen Plant 2 Flare (manual produced but combustion efficiency below 85%)
- h. LSG Flare
- i. NP Flare (manual produced but combustion efficiency below 85%)

36. The refinery's failure to possess and implement flare specific or generally available documents that prescribe or recommend the amount of steam or air to add to the flare is a failure to meet the requirement to monitor the control devices to ensure that they are operated and maintained in conformance with their designs as required by 40 C.F.R. § 60.482 - 10a(e). As described in Paragraphs 13, 15, and 31, these violations occurred at the following flares:

- a. Alkylation Flare
- b. Aromatics North Flare
- c. Aromatics South Flare
- d. Distilling Flare
- e. Distilling West Flare
- f. LSG Flare

37. The refinery's failure to operate certain flares at or above specified net heating values is a failure to meet the requirements of 40 C.F.R. § 60.18(c)(3)(ii). As described in Paragraphs 7 and 33, these violations occurred at the following flares:

- a. Alkylation Flare
- b. Aromatics North Flare
- c. Aromatics South Flare
- d. Coker North Flare
- e. Hydrogen Plant 2 Flare

NESHAP for Source Categories

38. The refinery's failure to possess and implement flare specific or generally available documents that prescribe or recommend the amount of steam or air to add to the flare is a failure to meet the requirement to use good air pollution control practices to minimize emissions as required by 40 C.F.R. § 63.6(e)(1)(i). As described in Paragraphs 21, 26, 28, 29, 31, 32, and 34, these violations occurred at the following flares:

- a. Alkylation Flare
- b. Aromatics North Flare
- c. Aromatics South Flare
- d. Coker North Flare (manual produced but combustion efficiency below 85%)
- e. Distilling Flare
- f. Distilling West Flare
- g. Hydrogen Plant 2 Flare (manual produced but combustion efficiency below 85%)
- h. LSG Flare

i. NP Flare (manual produced but combustion efficiency below 85%)

39. The refinery's failure to operate certain flares at or above specified net heating values is a failure to meet the requirements of 40 C.F.R. § 63.11(b)(6)(ii). As described in Paragraphs 22, 26, 31, and 33, these violations occurred at the following flares:

- a. Alkylation Flare
- b. Aromatics North Flare
- c. Aromatics South Flare
- d. Coker North Flare
- e. Hydrogen Plant 2 Flare

Illinois SIP Provisions

40. The refinery's failure to operate certain flares at a combustion efficiency at or above 85% is a failure to meet the requirements of the Illinois SIP at IAC §§ 219.301 and 219.302. As described in Paragraphs 27, 28, 29, 31, 32, and 34, these violations occurred at the following flares:

- a. Alkylation Flare
- b. Aromatics North Flare
- c. Aromatics South Flare
- d. Coker North Flare
- e. Distilling Flare
- f. Hydrogen Plant 2 Flare
- g. LSG Flare
- h. NP Flare

V. Environmental Impact of Violations

41. The above-described violations have caused or can cause excess emissions of volatile organic compounds (VOC) and/or hazardous air pollutants (HAP). VOC cause ground level ozone, which can irritate the human respiratory system and reduce lung function.

VI. Enforcement Provisions

42. Sections 113(a)(1) and (3) of the Act, 42 U.S.C. § 7413(a)(1) and (3), provide that the Administrator may bring a civil action in accordance with Section 113(b) of the Act, 42 U.S.C. § 7413(b), whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of Title I of the Act, *inter alia*, the NSPS requirements of Section 111 of the Act, 42 U.S.C. § 7411, and any regulation issued thereunder; the NESHAP requirements of Section 112 of the Act, 42 U.S.C. § 7412, and any regulation issued thereunder; or the provisions of the Illinois SIP.

6/30/14

Date

Eerniak George T. Director Air and Radiation Division

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 76 of 90 Page ID #76

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-14-IL-04, by Certified Mail, Return Receipt Requested, to:

> Mike D. Bechtol Director, Environmental Wood River Refinery 900 S. Central Ave. Roxana, Illinois 62084

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first-class mail to:

Eric Jones, Manager Bureau of Air, Compliance and Enforcement Section Illinois Environmental Protection Agency P.O. Box 19506 Springfield, Illinois 62794

Uly On the \mathcal{O} day of 2014.

oretta Shaffer

Program Technician AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER:

10010320 0006 0185 9914

Standard bcc's:

Official File w/Attachment(s) Originating Organization Reading File w/Attachment(s)

Other bcc's:

C:\Users\ggehrig\Desktop\Working files\Cases\WRB (fka Conoco) Wood River Refinery - Roxana, IL non CBI\NOV-FOV\Wood River Refinery NOV-FOV 6.30.14 v2.docx United States, et al. v. WRB Refining, et al. (S.D. Illinois)

COMPLAINT EXHIBIT 2

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 79 of 90 Page ID #79



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

SEP 2 9 2014

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Brian Wulf Director, Environmental Wood River Refinery 900 South Central Avenue Roxana, Illinois 62084

Dear Mr. Wulf:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to WRB Refining LP's Wood River refinery at 900 South Central Avenue, Roxana, Illinois (you or the refinery). EPA has determined that the refinery is in violation of the National Emission Standard for Benzene Waste Operations. Violations of the National Emission Standard for Benzene Waste Operations constitute violations of Section 112 of the Act.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the FOV prior to the conference date.

Please plan for the refinery's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contacts in this matter are Virginia Galinsky, Environmental Engineer, and Mary McAuliffe, Associate Regional Counsel. You may call them at (312) 353-2089 and (312) 886-6237, respectively, if you wish to request a conference. You should make the request for a conference within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely, George T. Czerniak Director Air and Radiation Division

cc: Eric Jones, Illinois Environmental Protection Agency Donna H. Carvalho, Phillips 66

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

IN THE MATTER OF:)
)
WRB Refining, LP) FINDING OF VIOLATION
Wood River Refinery)
Roxana, Illinois)
) EPA-5-14-IL-25
Proceedings Pursuant to)
the Clean Air Act) -
42 U.S.C.§ § 7401 et seq.)

FINDING OF VIOLATION

WRB Refining LP owns and operates a petroleum refinery at 900 South Central Avenue, Roxana, Illinois, known as the Wood River Refinery (facility or refinery). WRB Refining LP is a limited partnership jointly owned by Phillips 66 and Cenovus Energy Inc. Phillips 66 is the operator and managing partner of WRB Refining LP. Operations at the refinery include a wastewater treatment plant and process sewers that contain benzene waste.

The U.S. Environmental Protection Agency is sending this Finding of Violation (FOV or Notice) to notify the refinery that we have found violations of the National Emission Standard for Benzene Waste Operations.

<u>Clean Air Act</u>

1. Section 112(b) of the Act, 42 U.S.C. § 7412(b) lists 188 Hazardous Air Pollutants (HAPs) that cause adverse health or environmental effects.

2. Section 112(d) of the Act, 42 U.S.C. § 7412(d), requires EPA to promulgate regulations establishing emissions standards for each category or subcategory of major and area sources of HAPs that are listed for regulation pursuant to Section 112(c), 42 U.S.C. § 7412(c).

NESHAP General Provisions

3. 40 C.F.R. § 61.05(c) requires that "[n]inety days after the effective date of any standard, no owner or operator shall operate any existing source subject to that standard in violation of the standard, except under a waiver granted by the Administrator under this part or under an exemption granted by the President under section 112(c)(2) of the Act."

4. 40 C.F.R. § 61.12(a) provides that "[c]ompliance with numerical emission limits shall be determined in accordance with emission tests established in § 61.13 or as otherwise specified in an individual subpart."

5. 40 C.F.R. § 61.12(b) provides that "[c]ompliance with design, equipment, work practice or operational standards shall be determined as specified in an individual subpart."

6. 40 C.F.R. § 61.12(c) requires that "[t]he owner or operator of each stationary source shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the source."

Benzene Waste NESHAP

7. Under Section 112(d) of the Act, 42 U.S.C. § 7412(d), EPA promulgated the National Emission Standard for Benzene Waste Operations (Benzene Waste NESHAP) on March 7, 1990. See 55 Fed. Reg. 8346.

8. The Benzene Waste NESHAP, as amended, became effective on January 7, 1993, and is codified at 40 C.F.R. Part 61, Subpart FF

9. 40 C.F.R. § 61.340(a) provides that "[t]he provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries."

10. 40 C.F.R. § 61.341 defines "cover" as "a device or system which is placed on or over a waste placed in a waste management unit so that the entire waste surface area is enclosed and sealed to minimize air emissions. A cover may have openings necessary for operation, inspection, and maintenance of the waste management unit such as access hatches, sampling ports, and gauge wells provided that each opening is closed and sealed when not in use. Example of covers include a fixed roof installed on a tank, a lid installed on a container, and an air-supported enclosure installed over a waste management unit."

11. 40 C.F.R. § 61.341 defines "fixed roof" as "a cover that is mounted on a waste management unit in a stationary manner and that does not move with fluctuations in liquid level."

12. 40 C.F.R. § 61.341 defines "individual drain system" as "the system used to convey waste from a process unit, product storage tank, or waste management unit to a waste management unit. The term includes all process drains and common junction boxes, together with their associated sewer lines and other junction boxes, down to the receiving waste management unit."

13. 40 C.F.R. § 61.341 defines "no detectable emissions" as "less than 500 parts per million by volume (ppmv) above background levels, as measured by a detection instrument reading in accordance with the procedures specified in § 61.355(h) of this subpart."

14. 40 C.F.R. § 61.341 defines "oil-water separator" as "a waste management unit, generally a tank or surface impoundment, used to separate oil from water. An oil-water

separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional treatment units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water separator include an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment."

15. 40 C.F.R. § 61.341 defines "tank" as "a stationary waste management unit that is designed to contain an accumulation of waste and is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support."

16. 40 C.F.R. § 61.341 defines "waste management unit" as "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. . ."

17. 40 C.F.R. § 61.342(a) provides that "...[t]he total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream..."

18. 40 C.F.R. § 61.342(a)(3) provides that "[b]enzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility. If the facility's total annual benzene quantity is 10 Mg/yr (11 ton/yr) or more, wastes generated by remediation activities are subject to the requirements of paragraphs (c) through (h) of this section. If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent."

19. 40 C.F.R. § 61.342(c) requires that "[e]ach owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section shall manage and treat the facility waste as follows: (1) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the owner or operator shall: (i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in § 61.348 of this subpart. (ii) Comply with the standards specified in §§ 61.343 through 61.347 of this subpart for each waste stream in accordance with paragraph (c)(1)(i) of this section. (iii) Each

waste management unit used to manage or treat waste streams that will be recycled to a process shall comply with the standards specified in §§ 61.343 through 61.347. Once the waste stream is recycled to a process, including to a tank used for the storage of production process feed, product, or product intermediates, unless this tank is used primarily for the storage of wastes, the material is no longer subject to paragraph (c) of this section."

20. 40 C.F.R. § 61.342(e) requires that "[a]s an alternative to the requirements specified in paragraphs (c) and (d) of this section, an owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section may elect to manage and treat the facility waste as follows:

(1) The owner or operator shall manage and treat facility waste with a flow-weighted annual average water content of less than 10 percent in accordance with the requirements of paragraph (c)(1) of this section; and

(2) The owner or operator shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of 10 percent or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such that the resulting mixture has an annual water content greater than 10 percent, in accordance with the following:

(i) The benzene quantity for the wastes described in paragraph (e)(2) of this section must be equal to or less than 6.0 Mg/yr (6.6 ton/yr), as determined in § 61.355(k). Wastes as described in paragraph (e)(2) of this section that are transferred offsite shall be included in the determination of benzene quantity as provided in § 61.355(k). The provisions of paragraph (f) of this section shall not apply to any owner or operator who elects to comply with the provisions of paragraph (e) of this section.

(ii) The determination of benzene quantity for each waste stream defined in paragraph (e)(2) of this section shall be made in accordance with \S 61.355(k)."

21. 40 C.F.R. § 61.343(a) requires that "[e]xcept as provided in paragraph (b) of this section and in § 61.351, the owner or operator must meet the standards in paragraph (a)(1) or (2) of this section for each tank in which the waste stream is placed in accordance with § 61.342 (c)(1)(ii). The standards in this section apply to the treatment and storage of the waste stream in a tank, including dewatering."

22. 40 C.F.R. § 61.343(a)(1) requires that "[t]he owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device."

23. 40 C.F.R. § 61.343(a)(1)(i) requires that "[t]he fixed-roof shall meet the following requirements: (A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart."

24. 40 C.F.R. § 61.346(a) requires that "[e]xcept as provided in paragraph (b) of this section, the owner or operator shall meet the following standards for each individual drain system in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart: (1) The owner or operator shall install, operate, and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device."

25. 40 C.F.R. § 61.346(a)(1)(i) requires that "[t]he cover shall meet the following requirements: (A) The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detactable [*sic*] emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart. (B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair."

26. 40 C.F.R. § 61.347(a) requires that "[e]xcept as provided in § 61.352 of this subpart, the owner or operator shall meet the following standards for each oil-water separator in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart: (1) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device."

27. 40 C.F.R. § 61.347(a)(1)(i)(A) requires that the fixed roof shall meet the following requirements: "[t]he cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart."

28. 40 C.F.R. § 61.347(a)(1)(i)(B) requires that "[e]ach opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair."

29. 40 C.F.R. § 61.348(a)(1) requires that the owner or operator shall treat the waste stream by designing, installing, operating, and maintaining a treatment process that either "(i) Removes benzene from the waste stream to a level less than 10 parts per million by weight (ppmw) on a flow-weighted annual average basis, (ii) Removes benzene from the waste stream by 99 percent or more on a mass basis, or (iii) Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene."

30. 40 C.F.R. § 61.348(a)(2) requires that "[e]ach treatment process complying with paragraphs (a)(1)(i) or (a)(1)(ii) of this section shall be designed and operated in accordance with the appropriate waste management unit standards specified in §§ 61.343 through 61.347 of this subpart. For example, if a treatment process is a tank, then the owner or operator shall comply with § 61.343 of this subpart."

31. 40 C.F.R. § 61.348(e) requires that "[e]xcept as specified in paragraph (e)(3) of this section, if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance."

32. 40 C.F.R. § 61.351(a) provides that "[a]s an alternative to the standards for tanks specified in § 61.343 of this subpart, an owner or operator may elect to comply with one of the following:... (2) An external floating roof meeting the requirements of 40 CFR 60.112b (a)(2)..." (See paragraph 35, below.)

33. 40 C.F.R. § 61.355(h) requires that "[a]n owner or operator shall test equipment for compliance with no detectable emissions as required in §§ 61.343 through 61.347, and §61.349 of this subpart in accordance with the following requirements: (1) Monitoring shall comply with Method 21 from appendix A of 40 CFR part 60...(6) The instrument probe shall be traversed around all potential leak interfaces as close as possible to the interface as described in Method 21..."

34. 40 C.F.R. § 61.355(k) requires that "[a]n owner or operator shall determine the benzene quantity for the purposes of the calculation required by § 61.342(e)(2) by the following procedure: (1) For each waste stream that is not controlled for air emissions in accordance with § 61.343. 61.344, 61.345, 61.346, 61.347, or 61.348(a), as applicable to the waste management unit that manages the waste, the benzene quantity shall be determined as specified in paragraph (a) of this section, except that paragraph (b)(4) of this section shall not apply, i.e., the waste quantity for process unit turnaround waste is not annualized but shall be included in the determination of benzene quantity for the year in which the waste is generated for the purposes of the calculation required by § 61.342(e)(2)."

NSPS Subpart Kb

35. 40 C.F.R. § 60.112b(a)(2)(ii) requires that an on an external floating roof tank, "...[a]utomatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports...Automatic bleeder vents and rim space vents are to be gasketed..."

Factual Background

36. WRB Refining LP (WRB) owns and operates the refinery at 900 South Central Avenue, Roxana, Illinois. WRB is a limited partnership jointly owned by Phillips 66 and Cenovus Energy Inc. Phillips 66 is a Delaware corporation located in Houston, Texas. Cenovus Energy Inc. is a Canadian corporation located in Calgary, Canada. Phillips 66 is the operator and managing partner of WRB. The refinery includes several units that the refinery has identified as being subject to the Benzene Waste NESHAP, including the Lower Lift Station, Upper Lift Station, Tank B121, Tank A149, dissolved nitrogen flotation tanks (DNFs) and corrugated plate interceptors (CPIs). The refinery has also identified Tank A149 as subject to NSPS Subpart Kb.

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 87 of 90 Page ID #87

37. The refinery generates more than 10 megagrams per year (Mg/yr) of total annual benzene. The refinery has chosen to comply with the compliance option outlined at 40 C.F.R. 61.342(e).

38. The Lower Lift Station is an "individual drain system" as defined in the Benzene Waste NESHAP.

39. The Upper Lift Station 1^{st} and 2^{nd} stage neutralization basins are tanks as defined in the Benzene Waste NESHAP.

40. Each CPI is an "oil-water separator" as defined in the Benzene Waste NESHAP.

41. Tank A149, Tank B121 and the DNFs are each a "tank" as defined in the Benzene Waste NESHAP.

42. From June 16 – 19, 2014, EPA conducted an on-site inspection at the refinery. During this inspection, EPA used a FLIR camera as a screening tool to identify leaks. When EPA observed a leak, the refinery's Benzene Waste NESHAP contractor, Guardian, performed Method 21 on the identified area to determine whether the component was leaking above 500 ppmv.

43. During the inspection, EPA and Guardian identified the following covers and openings in covers that had instrument readings over 500 ppmv (components are identified using the refinery's Benzene Waste NESHAP component IDs):

Component	Component	Unit	Date of	Method 21
D	Description		Inspection	Reading
				(ppmv)
a. B10055	East wooden cover	Lower Lift Station	6/17/2014	266,119
b. B10040	West wooden cover	Lower Lift Station	6/17/2014	266,119
c. B10042	West wooden cover	Lower Lift Station	6/17/2014	39,151
d. B10288	Hatch	Upper Lift Station	6/17/2014	4,208
		– 1 st Stage Neutral. Basin		
e. B10319	Hatch	Upper Lift Station – 2 nd Stage Neutral.	6/17/2014	21,709
		Basin		
f. B10393	Hatch	CPI #51	6/17/2014	18,619
g. B10394	Hatch	CPI #51	6/17/2014	611
h. B10477	Hatch	CPI #53	6/17/2014	1,082
i. B10478	Hatch	CPI #53	6/17/2014	21,345
j. B13963	Pinhole opening	CPI #56	6/17/2014	35,000
k. B10416	Cover	CPI #50	6/17/2014	3,107
1. B10353	Hatch	CPI #48	6/17/2014	507
m. B10904	Conservation Vent	Tank B121	6/19/2014	4,371
n. B10478	Hatch	CPI #53	6/19/2014	2,301

44. On June 17, 2014, EPA observed Tank A149 using the FLIR camera. The camera showed hydrocarbon emissions from each of the three bleeder vents located on the roof of Tank A149.

45. The refinery's July 9, 2014 follow-up inspection identified that each of the 3 bleeder vents had deteriorated gaskets.

46. On June 19, 2014, EPA observed DNF #1 using the FLIR camera. The camera showed hydrocarbon emissions from 17 seams on the roof of DNF #1. None of these seams could be monitored that day using Method 21 because these seams were located too far from the walkway on top of DNF #1.

47. During EPA's inspection, DNF #2 was down for unplanned maintenance, and could not be monitored. A refinery representative informed EPA that the refinery does not monitor the seams on the roof of DNF #1 or #2 as part of its Method 21 monitoring for the Benzene Waste NESHAP.

48. Under 40 C.F.R. § 61.355(k), because the Lower Lift Station (individual drain system), Upper Lift Station (tank), each CPI, each DNF (tank), Tank A149 and Tank B121 (tank) were not controlled for air emissions in accordance with §§ 61.343, 61.346 and 61.347, as described in Paragraphs 43 and 47, the refinery must determine the benzene quantity for each waste steam from each waste management unit according to 40 C.F.R. § 61.355(a).

49. When the waste streams flowing through the Lower Lift Station, Upper Lift Station, CPIs, DNFs, Tank A149 and Tank B121 are counted in the calculation under 40 C.F.R. § 61.355(k), the refinery's uncontrolled benzene quantity is greater than its compliance limit of 6 megagrams (Mg).

Violations

50. The refinery's failure to design the cover and all openings of the individual drain system to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as identified in Paragraph 43.a – 43.c, is a violation of 40 C.F.R. § 61.346(a)(1)(i).

51. The refinery's failure to design the cover and all openings of each tank to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as identified in Paragraphs 43.d, 43.e, and 43.m, is a violation of 40 C.F.R. \S 61.343(a)(1)(i).

52. The refinery's failure to design the cover and all openings of each of the oil-water separators to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as identified in Paragraphs 43.f - 43.1 and 43.n, is a violation of 40 C.F.R. § 61.347(a)(1)(i)(A).

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 89 of 90 Page ID #89

53. The refinery's failure to seal all openings in the wastewater treatment system, as identified in Paragraph 43.j, is a violation of 40 C.F.R. § 61.348(e).

54. The refinery's failure to maintain the gaskets on the bleeder vents of Tank A149 is a violation of 40 C.F.R. §§ 60.112b(a)(2)(ii) and 61.351(a)(2).

55. The refinery's failure to monitor each of the seams on the DNF covers is a violation of 40 C.F.R. \S 61.343(a)(1)(i).

56. The refinery's failure to have an uncontrolled benzene quantity less than 6 Mg is a violation of 40 C.F.R. \S 61.342(e)(2).

9/29/19

Date

George T. C erniak Director/ Air and Radiation Division

Case 3:18-cv-01484 Document 1 Filed 08/10/18 Page 90 of 90 Page ID #90

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-14-IL-25, by Certified Mail, Return Receipt Requested, to:

Brian Wulf Director, Environmental Wood River Refinery 900 South Central Avenue Roxana, IL 62084

I also certify that I sent a copy of the Finding of Violation by first-class mail to:

Eric Jones, Manager Compliance Unit Illinois Environmental Protection Agency 1021 North Grand Avenue East Springfield, IL 62702

Donna Carvalho Senior Counsel Legal 8115 Pinnacle 3010 Briarpark Drive Houston, TX 77042

On the day of 2014.

CERTIFIED MAIL RECEIPT NUMBER

7009 1680 0000 7672 9178 Loretta Shaffer, Administrative Program Assistant Planning and Administration Section