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

JUN 28 2013

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Rebecca Collins, Environmental Manager
Blue Island Phenol
3350 West 131st Street
Blue Island, Illinois 60406

Re: Finding of Violation
Blue Island Phenol
Blue Island, Illinois

Dear Ms. Collins:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to Blue Island Phenol (you). We find that you are violating Section 112 of the Clean Air Act (CAA), 42 U.S.C. § 7413, at your Blue Island, Illinois facility.

We have several enforcement options under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3). 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 the opportunity to present information on the specific findings of violation, the efforts you have taken to comply, and the steps you will take to prevent future violations.

Please plan for your facility'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 contact in this matter is Bonnie Bush. You may call her at 312.353.6684 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

cc: Ray Pilapil, Manager
Illinois Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Blue Island Phenol LLC	)	**FINDING OF VIOLATION**
Blue Island, Illinois	)	
	)	**EPA-5--13-IL-36**
	)	
Proceedings Pursuant to	)	
Section 113(a)(3) of the	)	
Clean Air Act, 42 U.S.C.	)	
§ 7413(a)(3)	)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Finding of Violation under Section 113(a)(3) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a)(3). EPA finds that Blue Island Phenol (BIP) is violating the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Organics at 40 C.F.R. Part 63, Subparts F, G, and H, and the NESHAP for Benzene Waste Operations at 40 C.F.R. Part 61, Subpart FF as follows:

Statutory and Regulatory Background

1. On April 22, 1994, 59 Fed. Reg. 19454, EPA promulgated the NESHAP for Synthetic Organic Chemical Manufacturing Industry (SOCMI) at 40 C.F.R. Part 63, Subpart F.

2. On April 22, 1994, 59 Fed. Reg. 19468, EPA promulgated the NESHAP for SOCMI for Process Vents, Storage Vessels, Transfer Operations, and Wastewater at 40 C.F.R. Part 63, Subpart G.

3. On April 22, 1994, 59 Fed. Reg. 19568, EPA promulgated the NESHAP for Equipment Leaks at 40 C.F.R. Part 63, Subpart H.

4. The Subparts F, G, and H NESHAPs are collectively known as the Hazardous Organic NESHAP (the HON).

5. The HON Subpart F, at 40 C.F.R. § 63.100(a), provides applicability provisions, definitions, and other general provisions that are applicable to the HON Subparts G and H.

6. The HON Subpart F at 40 C.F.R. § 63.100(b), provides that except as provided in paragraphs (b)(4) and (c) of this section, the provisions of subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section:

(1) Manufacture as a primary product one or more of the chemicals listed in paragraphs (b)(1)(i) or (b)(1)(ii) of this section.

(i) One or more of the chemicals listed in table 1 of this subpart; or
(ii) One or more of the chemicals listed in paragraphs (b)(1)(ii)(A) or (b)(1)(ii)(B) of this section:

(A) Tetrahydrobenzaldehyde (CAS Number 100-50-5); or

(B) Crotonaldehyde (CAS Number 123-73-9).

(2) Use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of this subpart;

(3) Are located at a plant site that is a major source as defined in Section 112(a) of the Act.

7. The HON Subpart F, at 40 C.F.R. § 63.100(b)(4), provides that the owner or operator of a chemical manufacturing processing unit is exempt from all requirements of the HON Subparts F, G, and H until not later than April 22, 1997 if the owner or operator certifies, in a notification to the appropriate EPA Regional Office, not later than May 14, 1996, that the plant site at which the chemical manufacturing processing unit is located emits, and will continue to emit, during any 12-month period, less than 10 tons per year of any individual hazardous air pollutants (HAP), and less than 25 tons per year of any combination of HAP.

(i) If such a determination is based on limitations and conditions that are not federally enforceable (as defined in subpart A of this part), the owner or operator shall document the basis for the determination as specified in paragraphs (b)(4)(i)(A) through (b)(4)(i)(C) and comply with the recordkeeping requirement in 63.103(f).

(A) The owner or operator shall identify all HAP emission points at the plant site, including those emission points subject to and emission points not subject to subparts F, G, and H;

(B) The owner or operator shall calculate the amount of annual HAP emissions released from each emission point at the plant site, using acceptable measurement or estimating techniques for maximum expected operating conditions at the plant site. Examples of estimating procedures that are considered acceptable include the calculation procedures in § 63.150 of subpart G, the early reduction demonstration procedures specified in §§ 63.74 (c)(2), (c)(3), (d)(2), (d)(3), and (g), or accepted engineering practices. If the total annual HAP emissions for the plant site are annually reported under Emergency Planning and

Community Right-to-Know Act (EPCRA) section 313, then such reported annual emissions may be used to satisfy the requirements of § 63.100(b)(4)(i)(B).

(C) The owner or operator shall sum the amount of annual HAP emissions from all emission points on the plant site. If the total emissions of any one HAP are less than 10 tons per year and the total emissions of any combination of HAP are less than 25 tons per year, the plant site qualifies for the exemption described in paragraph (b)(4) of this section, provided that emissions are kept below these thresholds.

(ii) If such a determination is based on limitations and conditions that are federally enforceable (as defined in subpart A of this part), the owner or operator is not subject to the provisions of paragraph (b)(4) of this section.

8. The HON Subpart G, at 40 C.F.R. § 63.149(a), provides that the owner or operator shall comply with the provisions of table 35 of this subpart, for each item of equipment meeting all the criteria specified in paragraphs (b) through (d) and either paragraph (e)(1) or (e)(2) of this section.

9. The HON Subpart G, at 40 C.F.R. § 63.149(b), provides that the item of equipment is of a type identified in table 35 of this subpart.

10. The HON Subpart G, at 40 C.F.R. § 63.149(c), provides that the item of equipment is part of a chemical manufacturing process unit that meets the criteria of § 63.100(b) of subpart F of this part.

11. The HON Subpart G, at 40 C.F.R. § 63.149(d), provides that the item of equipment is controlled less stringently than in table 35 and is not listed in § 63.100(f) of subpart F of this part, and the item of equipment is not otherwise exempt from controls by the provisions of subparts A, F, G, or H of this part.

12. The HON Subpart G, at 40 C.F.R. § 63.149(e)(1), provides that the item of equipment is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of table 9 compounds at any flowrate; or a total annual average concentration greater than or equal to 1,000 parts per million by weight of table 9 compounds at an annual average flow rate greater than or equal to 10 liters per minute.

13. The HON Subpart G table 35 provides that an oil/water separator is (a) equipped with a fixed roof and vapors are routed to a process or to a fuel gas system, or is equipped with a closed vent system that routes vapors to a control device meeting the requirements of § 63.139(c); or (b) equipped with a floating roof that meets the equipment specifications of § 60.693(a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4).

14. The HON Subpart H, at 40 C.F.R. § 63.160(a) provides that the provisions of this subpart apply to pumps, compressors, agitators, pressure relief devices, sampling

connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or systems required by this subpart that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific subpart in 40 CFR part 63 that references this subpart.

15. The HON Subpart H, at 40 C.F.R. § 63.167(a)(1) and (2), provides that each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance and repair.

16. The HON Subpart H, at 40 C.F.R. § 63.169(c)(1) and (2), provides that when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 63.171 of this subpart. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

17. The HON Subpart H, at 40 C.F.R. § 63.180(b)(1), requires each owner or operator of a source subject to Subpart H to comply with the monitoring procedures and requirements of Method 21, at 40 C.F.R. Part 60, Appendix A.

18. Method 21, at 40 C.F.R. Part 60, Appendix A, Section 8.3.1, specifies the techniques the owner or operator of an affected source must use to detect leaks at various components, including, among other techniques, slowly sampling the interface of a component where leakage is indicated until the maximum meter reading is obtained.

19. On March 7, 1990, 55 Fed. Reg. 8346, EPA promulgated the NESHAP for Benzene Waste Operations at 40 C.F.R. Part 61, Subpart FF (the BWON). The BWON, at 40 C.F.R. § 61.340(a), applies to, among other things, owners and operators of chemical manufacturing plants.

20. The BWON, at 40 C.F.R. § 61.341, defines "chemical manufacturing plant" as any facility engaged in the production of chemicals by chemical, thermal, physical, or biological processes for use as a product, co-product, by-product, or intermediate including but not limited to industrial organic chemicals.

21. The BWON, at 40 C.F.R. § 61.357(a), provides that, among other things, each owner or operator of a chemical plant shall submit to the Administrator within 90 days after January 7, 1993, a report on benzene-containing waste streams, including but not limited to the total annual benzene quantity determined in accordance with § 61.355(a) of this subpart.

22. The BWON, at 40 C.F.R. § 61.355(a)(4), provides that if the total annual benzene quantity is less than 10 Mg/yr but is equal to or greater than 1 Mg/yr, then the owner or operator shall comply with the recordkeeping requirements of § 61.356 and reporting requirements of § 61.357 of this subpart and repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a

change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or more.

23. The BWON, at 40 C.F.R. § 61.357(b), provides that if the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

24. The BWON, at 40 C.F.R. § 61.357(c), provides that if the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section. The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of this section is not changed in the following year, the owner or operator may submit a statement to that effect.

Findings of Fact

25. BIP owns and operates a chemical manufacturing plant at 3350 West 131st Street, Blue Island, Illinois.

26. At BIP's facility, benzene is used in the cumene process unit to make cumene.

27. At BIP's facility, cumene is used in the phenol process unit to make phenol and acetone.

28. Benzene, cumene and phenol are chemicals listed in the HON Subpart F Tables 1 and 2, and benzene and cumene are listed in the HON Subpart G Table 9.

29. BIP's facility is a major source of HAPs.

30. BIP's facility is subject to the HON Subparts F, G, and H.

31. BIP's facility includes an API oil/water separator that is open to the atmosphere.

32. Reports submitted by BIP to the Metropolitan Water Reclamation District (MWRD) show that wastewater discharged from the API oil/water separator to the municipal sewer from 2009 through 2012 contained benzene concentrations ranging from 20,420 parts per million (ppm) to 402,392 ppm.

33. BIP's API oil/water separator is subject to the HON Subpart G at 40 C.F.R. § 63.149 and table 35.

34. During EPA's October 31, 2011 through November 2, 2011 leak monitoring inspection, EPA inspectors used Method 21 and detected a leak of greater than 1000 ppm at an open-ended line off Valve 4535, indicating that the open-ended line was not sealed.

35. During EPA's October 31, 2011 through November 2, 2011 leak monitoring inspection, EPA inspectors used Method 21 and detected a 17,000 ppm leak at a connector by valve 1640, and the leaking connector was tagged, the tag stating it was found to be leaking on April 25, 2011.

36. During EPA's October 31, 2011 through November 2, 2011 leak monitoring inspection, EPA inspectors monitored 40 pumps, finding 5 leaking, for a leak rate of 12.5 percent. The pump leak rates detected by BIP from July 2011 through December 2011 were 1.98, 2.97, 2.97, 5.94, 6.93, and 3.96 percent.

37. BIP is engaged in the production of chemicals by chemical processes and operates to produce cumene.

38. BIP is subject to the BWON.

39. In 2009, a fire occurred at BIP that resulted in a benzene spill and discharge to the municipal sewer.

40. Benzene spills are included in any total annual benzene quantity calculation.

41. The monthly reports BIP submitted to MWRD for 2009 show that the annual benzene in the wastewater discharged to the municipal sewer was 3.758 Mg in 2009, which is greater than 1 Mg and less than 10 Mg.

42. BIP did not calculate or report a total annual benzene quantity after the 2009 fire.

Violations

38. BIP failed and continues to fail to cover and control emissions from the API oil/water separator, in violation of the HON Subpart G, 40 C.F.R. § 63.149(a) and table 35.

39. BIP failed to seal an open-ended line off Valve 4535, in violation of the HON Subpart H, 40 C.F.R. § 63.167(a)(1) and (2).

40. BIP failed to repair a leak at a connector near Valve 1640 as soon as practicable or within 15 days after it was detected, in violation of the HON Subpart H, 40 C.F.R. § 63.169(c).

41. BIP failed to properly perform Method 21 at pumps subject to the HON Subpart H, in violation of 40 C.F.R. § 63.180(b)(1) and 40 C.F.R. Part 60, Appendix A, Method 21, Section 8.3.1.

42. BIP failed to recalculate and report its Total Annual Benzene (TAB) after the 2009 fire and benzene spill, in violation of the BWON, 40 C.F.R. §§ 61.355(a)(4) and 61.357(b).

43. BIP failed and continues to fail, after exceeding a TAB of 1 Mg in 2009, to perform annual TAB calculations and submit reports of those annual TABs, in violation of the BWON, 40 C.F.R. § 61.357(c).

6/28/13
Date

George T. Czerniak, Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-13-IL-36 by Certified Mail, Return Receipt Requested, to:

Rebecca Collins, Environmental Manager
Blue Island Phenol
3350 West 131st Street
Blue Island, Illinois 60406

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

Ray Pilapil, Manager
Bureau of Air
Compliance and Enforcement Section
Illinois Environmental Protection Agency
1201 Grand Avenue East
Springfield, Illinois 62702

On the 28 day of June 2013

Loretta Shaffer
Administrative Program Assistant
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7672 9970