



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

APR 14 2014

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John Marta
Plant Manager
Horsehead Corporation
2701 E. 114th Street
Chicago, Illinois 60617

Re: Notice and Finding of Violation
Horsehead Corporation
Chicago, Illinois

Dear Mr. Marta:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to Horsehead Corporation (you) under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you are violating the Illinois State Implementation Plan at your Chicago, Illinois facility.

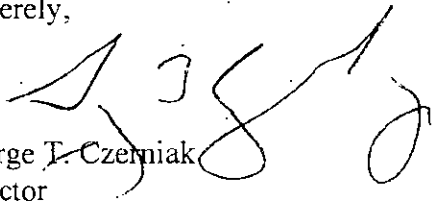
Section 113 of the Clean Air Act gives EPA several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/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 NOV/FOV prior to the conference date.

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 Alexandra Letuchy. You may call her at (312) 886-6035 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,

A handwritten signature in black ink, appearing to read "G. Czerniak", written over the typed name.

George J. Czerniak
Director
Air and Radiation Division

cc: Eric Jones
Manager of the Compliance Unit
Bureau of Air
Illinois Environmental Protection Agency

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)	
)	
Horsehead Corporation)	NOTICE AND FINDING OF
Chicago, Illinois)	VIOLATION
)	
)	EPA-5-14-IL-10
Proceedings Pursuant to)	
the Clean Air Act)	
42 U.S.C. § § 7401 et seq)	

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation (NOV/FOV) to Horsehead Corporation (Horsehead) to notify you that we have found violations of the Clean Air Act, 42 U.S.C. §§ 7401-7671q (CAA), and the Illinois State Implementation Plan (SIP) at the facility located at 2701 East 114th Street, Chicago, Illinois (Facility). The relevant statutory and regulatory background, factual background, notice and finding of violations, and environmental impact of these violations are set forth in detail below.

This NOV/FOV is issued in accordance with Section 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3), which authorize the Administrator to take certain enforcement actions after notifying a person that it is in violation of the Act. The authority to issue this NOV/FOV has been delegated by the Administrator to the Regional Administrator and re-delegated to the Director of the Air and Radiation Division for Region 5 of the EPA.

Relevant Statutory and Regulatory Background

Title V Requirements

1. Title V of the Act, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution. Section 502(d) of the Act, 42 U.S.C. § 7661a (d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.
2. In accordance with Section 502(b) of the Act, 42 U.S.C. § 7661a (b), the EPA promulgated regulations implementing Title V of the Act. *See* 57 Fed. Reg. 32295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.
3. Section 502(a) of the Act, 42 U.S.C. § 7661a (a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the Act, no source subject to Title V may operate except in compliance with a Title V permit. *See also* 40 C.F.R. § 70.7(b).

4. Section 503 of the CAA, 42 U.S.C. § 7661c (a), requires that each Title V permit include enforceable emission limitations and standards, a schedule of compliance, and other conditions necessary to assure compliance with applicable requirements, including those contained in a state implementation plan.
5. The rule at 40 C.F.R. § 70.6(b)(1) provides that Title V permits are federally enforceable and that all terms and conditions of a Title V permit are enforceable by the EPA.
6. The rule at 40 C.F.R. § 70.2 defines “major source” as, among other things, any stationary source belonging to a single major industrial grouping and that directly emits or has the potential to emit greater than 100 tons per year (tpy) or more of any air pollutant subject to regulation. *See also* 42 U.S.C. § 7661(2)(A).
7. The rule at 40 C.F.R. § 70.5(a) provides that “for each part 70 source, the owner or operator shall submit a timely and complete permit application in accordance with this section.”
8. The rule at 40 C.F.R. § 70.5(c) specifies the information to be provided in a permit application for that application to be considered complete. The required information includes all emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under this paragraph (c) of this section. For insignificant activities which are exempted because of size or production rate, a list of such insignificant activities must be included in the application.
9. The rule at 40 C.F.R. § 70.5(d) requires that the permit application contain a certification by a responsible official of its truth, accuracy, and completeness.
10. The EPA approved of the Illinois Title V program on December 4, 2001. 66 Fed. Reg. 62946. The approved Illinois Title V program is known as the Illinois Clean Air Act Permit Program (CAAPP).

Title V Permit

11. The Illinois Environmental Protection Agency (IEPA) issued a CAAPP Permit, Application No.: 96030189 (Title V Permit), to Horsehead on May 15, 2002.

12. The significant emission units in the Title V Permit and their associated emission capture equipment that are relevant to this FOV/NOV are:

Emission Unit	Description	Commenced Construction	Emission Control Equipment
Process Emission Source	Carbon Material Pneumatic Displacement Transfer System	11/93	Bag Collector 15
	Carbon Material Bin	11/93	Bag Collector 16
	Curing and Blending Building	1/92	Bag Collectors 11A, 11B, and 12
	Feed Handling System	3/87	Bag Collectors 2, 7, 8, 9, and 13
	Crude Zinc Oxide Bin	3/87	Bag Collectors 5, 6
	Iron Rich Material Transfer Area	6/93	Bag Collector 14
	Iron-Rich Material Kilns Discharge Area	4/87	Bag Collector 1
Waelz Kiln System	Rotary Kiln 1 and 2	Kiln 1 3/42 Kiln 2 4/93	Product Collectors 3 and 10
Fugitive Particulate Emissions	Facility Roadways		
	Carbon Storage Pile		
	Carbon Handling by a Conveyor		
	Iron-Rich Material Handling		

13. Condition 5.1.1. of the Title V Permit states that Horsehead is a major source of NOx emissions as defined by Title V of the CAA.
14. Condition 5.2.3.a. of the Title V Permit states that the facility shall operate under the provisions of a fugitive particulate matter operating program prepared by the Permittee and submitted to Illinois EPA for its review.
15. Condition 5.2.3.b. of the Title V Permit states that the fugitive particulate matter operating program shall be amended from time to time by the Permittee so that the operating program is current.

16. Condition 5.2.8. of the Title V Permit states that the facility is required to prepare and submit a contingency measure plan reflecting the PM₁₀ emission reductions as set forth in 35 Illinois Administrative Code (IAC) 212.703.
17. Condition 7.1.5. of the Title V Permit states that the Permittee shall operate and maintain bag collectors controlling the process emission sources, including periodic inspection, routine maintenance, and prompt repair of defects, if any, that assures compliance with the conditions of the process emission sources section.
18. Condition 7.1.6. of the Title V Permit states that the particulate matter (PM) emission limits for the Curing and Blending building are 1.0 lb/hr and 4.4 tpy. This condition also states: "the above limitation was established in permit 85120055, pursuant to Title I of the CAA, Major Stationary Sources Construction and Modification and 40 C.F.R. 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to these rules."
19. Condition 7.1.6. of the Title V Permit also states that the total emissions limit for the carbon material pneumatic displacement transfer system, carbon material bin, feed handling system, crude zinc oxide bin, iron-rich material transfer area, and the iron-rich material kilns discharge area shall not exceed 35.1 tons per year. This condition also states that "the above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modifications and/or 40 C.F.R. 52.21, PSD. The source has requested that the IEPA established emissions limitation and other appropriate terms and conditions in this permit that limit the PM emission from the affected process emission source operation below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application."
20. Condition 7.1.9.a.i. of the Title V Permit states that the permittee shall maintain records of periodic inspection of the bag collectors with the date, name of individual performing the inspection, and the nature of the inspection for the bag collectors controlling the process emission sources.
21. Conditions 7.1.9.a.ii. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling process emissions with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
22. Condition 7.1.9.b. of the Title V Permit states that the permittee shall maintain records of the inlet flow rates per respective bag collector controlling process emissions.
23. Condition 7.1.12.a. of the Title V Permit states that compliance with Condition 7.1.6. for the process emission units shall be based on an emissions calculation that accounts for bag collector inlet flow rate and bag collector efficiency.

24. Condition 7.2.9. e.i. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling emissions from Kilns 1 and 2 with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
25. Conditions 7.2.9.e.ii. of the Title V Permit states that the permittee shall maintain records of prompt repair of defects of the bag collectors controlling emissions from Kiln 1 and Kiln 2 with the identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
26. Condition 7.4.2. of the Title V Permit states that the sources of fugitive emissions are facility roadways, carbon storage piles, carbon-handling by a conveyor and iron-rich material handling.

PSD Requirements

27. The PSD provisions of Part C of Title I of the Act require preconstruction review and permitting of stationary sources in attainment/unclassifiable areas. 42 U.S.C. §§ 7470-7492. Pursuant to applicable regulations, if a major stationary source located in an attainment area is planning to make a major modification, then that source must obtain a PSD permit before beginning actual construction. 40 C.F.R. § 52.21. To obtain this permit, the source must, among other things, undergo a technology review and apply Best Available Control Technology (BACT), perform a source impact analysis, perform an air quality analysis and modeling, submit appropriate information and conduct additional impact analyses as required.
28. Section 165(a) of the Act, 42 U.S.C. § 7475(a) prohibits the construction and subsequent operation of a "major emitting facility" in an area designated as attainment or unclassifiable unless a permit has been issued that is consistent with the requirements of Section 165 and the facility employs BACT for each pollutant subject to regulation under the Act that is emitted from the facility.
29. On June 19, 1978, EPA issued regulations implementing the federal PSD program at 40 C.F.R. § 52.21. 43 Fed. Reg. 26,388, 26, 403 (June 19, 1978) (federal PSD program). Since that time, the federal PSD regulations have been revised, with subsequent revisions incorporated under 40 C.F.R. § 52.21 et seq.
30. Sections 110(a) and 161 of the CAA, 42 U.S.C. §§ 7410(a) and 7471, require each state to adopt a state implementation plan (SIP) that contains emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality in areas designated as attainment or unclassifiable.
31. The requirements of 40 C.F.R. §52.21(j) through (r) apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this section otherwise provides. 40 C.F.R. § 52.21(a)(2)(ii).

32. The rule at 40 C.F.R. § 52.21(r)(1) states that any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
33. "Major Stationary Source" for the purpose of PSD means any of the stationary sources of air pollution in 40 C.F.R. § 52.21(b)(1)(iii) which emits, or has the potential to emit, 100 tpy or more of a regulated NSR pollutant. 40 C.F.R. § 52.21(b)(1)(i)(a).
34. "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of a regulated NSR pollutant and a significant net emissions increase of that pollutant from the major stationary source. 40 C.F.R. § 52.21(b)(2)(i).
35. "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 40 C.F.R. § 52.21(a)(2)(iv); and (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).
36. "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is significant for that pollutant. 40 C.F.R. § 52.21(b)(40).
37. "Significant" means, in reference to a net emissions increase or the potential of a source to emit a rate of emissions that would equal or exceed any of the following rates: PM, 25 tpy; PM₁₀, 15 tpy; and PM_{2.5}, 10 tpy. 40 C.F.R. § 52.21(b)(23)(i).

Additional Illinois SIP Provisions

38. The rule at 35 IAC 201.144 states that no person shall cause or allow the operation of any existing emission source or any existing air pollution control equipment without first obtaining an operating permit from the Agency.
39. The rule at 35 IAC 212.324(a)(1)(B) states that this section shall apply to any process emission unit located in an area in the vicinity of Lake Calumet in Cook County.
40. The rule at 35 IAC 212.324(f) states that for any process emission unit subject to 35 IAC 212.324(a), the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in this Section shall be met at all times. Proper maintenance shall include visual inspections of air pollution control equipment; maintenance of an adequate inventory of spare parts, and expeditious repairs.

41. The rule at 35 IAC 212.324(g)(1) requires written records of inventory and documentation of inspection, maintenance, and repairs of all air pollution control equipment kept in accordance with 35 IAC 212.324(f).

Relevant Factual Background

42. Horsehead owns and operates an EAF dust processing facility located at 2701 East 114th Street in Chicago, Illinois (the Facility). The facility operates two Waelz kilns that convert EAF dust at high temperatures to crude zinc oxide and iron rich material.
43. Horsehead is located in Cook County, Illinois, and is located in the vicinity of Lake Calumet. The Lake Calumet Area was designated as a PM₁₀ nonattainment area prior to September 8, 2005. On that date, EPA redesignated the area as attainment for PM₁₀. *See also 70 Fed. Reg. 55612.*
44. On August 1, 2012, and again on March 31, 2014, EPA conducted inspections of the facility.
45. On November 14, 2012, EPA issued an information request to the Company pursuant to Section 114 of the CAA, 42 U.S.C. § 7414.
46. In response to the information request, Horsehead failed to provide a copy of current and past fugitive particulate matter operating program. Horsehead stated in the 2011 CAAPP Compliance Report that the facility was in the process of developing the program to be submitted to IEPA and was out of compliance with the requirements at Condition 5.2.3.a. of the Title V Permit. EPA obtained a copy of the operating program for fugitive particulate matter control in May of 2013.
47. Horsehead stated in the 2011 CAAPP Compliance Report that the facility was out of compliance with the PM₁₀ contingency measure plan requirements at Condition 5.2.8. of the Title V Permit.

48. In response to the information request, Horsehead stated that the company manually records the differential pressure readings at the bag collectors on a weekly basis. The records showed that the normal operating range is a 4 – 8 inches water column at each bag collector. The table below, from May 1, 2009 to November 26, 2012, provides: the percentage of weekly differential pressure readings missed and the percentage of daily differential pressure readings that deviated from the normal operating range. No information was provided for bag collector 15.

Bag Collector	% of Missed Readings	% of Out of Range Readings
1	6.9	88.4
11A	6.9	64.3
11B	6.9	81.5
16	6.9	100.0
2	18.3	100.0
12	18.6	100.0
14	18.6	100.0
3	15.5	21.3
10	15.5	69.7
7	5.8	97.1
8	5.8	42.0
17	5.8	99.6
9	19.2	96.4
13	18.8	87.1

49. In response to the information request, Horsehead provided measured inlet volumetric flow rates for each bag collector controlling process emission sources. Horsehead also provided baghouse capacities and fan capacities for each bag collector. Horsehead did not provide inlet volumetric flow rates for bag collector 15 or 16. The measured inlet volumetric flow rates for each bag collector were significantly lower than the baghouse capacity and fan capacity for each bag collector.
50. In response to the information request, Horsehead provided records of inspections and repairs for the bag collectors and product collectors. From May 1, 2009 to November 26, 2012, only one inspection was conducted on bag collectors 3, 10, 9, 13, and 8. No documented inspections have occurred on the remaining bag collectors. The records provided did not contain the name of the individual performing the inspections or the nature of the inspections.
51. The repair records provided did not contain the effect on emissions or the date of repairs. The records also did not consistently contain the identification and description of defects and nature of repairs.
52. During the EPA inspection on August 1, 2012, Horsehead personnel stated that iron rich material was stored in piles on the property and that there were no fugitive controls for the piles.

Notice and Finding of Violations

Violations of the Title V Permit and the Illinois SIP

53. By failing to prepare a fugitive particulate matter operating program, operate according to the program, and periodically amend the program, Horsehead violated Condition 5.2.3.a. of the Title V Permit.
54. By failing to submit a PM10 contingency measure plan, Horsehead violated Condition 5.2.8. of the Title V Permit.
55. By failing to inspect the bag collectors on a periodic basis, by failing to operate the bag collectors within a differential pressure range that indicates normal operation, failing to measure differential pressure on a weekly basis, and failing to repairs defects at the bag collectors indicated by differential pressure, Horsehead violated Condition 7.1.5. of the Title V Permit and 35 IAC 212.324(f).
56. By failing to include all required elements in the inspection records, Horsehead violated Conditions 7.1.9.a.i. and 7.2.9.e.i. of the Title V Permit and 35 IAC 212.324(g)(1).
57. By failing to include all required elements in the maintenance records, Horsehead violated Conditions 7.1.9.a.ii. and 7.2.9.e.ii. of the Title V Permit.
58. From at least 2010 to 2012, Horsehead has exceeded the PM emission limits in Condition 7.1.6., as evidenced by the bag collector efficiency in the Title V Permit and the discrepancies between the measured inlet flow rates and the bag collector capacities and fan capacities.
59. By failing to include the Iron Rich Material storage piles in the 1996 and 2006 permit applications and failing to submit correct information, Horsehead violated 40 C.F.R. § 70.5(a), 70.5(c), and 70.5(d).
60. By failing to obtain an operating permit for the Iron Rich Material storage piles, Horsehead violated and 35 IAC 201.144.

Violations of PSD

61. From at least 2010 to 2012, Horsehead's operation of the process emission sources has resulted in a significant net emissions increase of PM in violation of 40 C.F.R. § 52.21, as evidenced by the bag collector efficiency in the Title V Permit and the discrepancies between the measured inlet flow rates and the bag collector capacities and fan capacities.

Environmental Impact of Violations

62. These violations have caused excess emissions of PM. PM, especially fine particulates contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. PM exposure contributes to irritation of the airways, coughing, and difficulty breathing, decreased lung function, aggravated asthma, chronic bronchitis, irregular heartbeat, nonfatal heart attacks and premature death in people with heart or lung disease.
63. These violations have also likely resulted in increased emissions of Hazardous Air Pollutants (HAPs), including, but not limited to, manganese, lead, and cadmium. Chronic inhalation exposure of manganese results impacts the nervous systems and results in slower visual reaction time and impaired eye-hand coordination. Inhalation exposure also causes respiratory effects such as bronchitis, dyspnea during exercise, and an increase susceptibility to infectious lung disease. In children, low levels of lead in the blood can result in permanent damage to the brain and nervous system, leading to behavior and learning problems, lower IQ, hearing problems, slowed growth, and anemia. In adults, lead has nervous system effects, cardiovascular effects, and causes decreased kidney function. The acute affect on cadmium inhalation causes bronchial and pulmonary irritation. Chronic inhalation can cause kidney disease, bronchiolitis, and emphysema. HAP emissions may also cause harmful environmental and ecological effects.

Date

4/14/14

George T. Czerniak
Director
Air and Radiation Division

CERTIFICATE OF MAILING

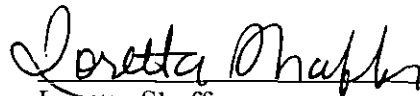
I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, EPA-5-14-IL-10,
by Certified Mail, Return Receipt Requested, to:

John A. Marta
Plant Manager
Horsehead Corporation
2701 East 114th Street
Chicago, Illinois 60617

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

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

On the 14 day of April 2014.



Loretta Shaffer
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7676 2632