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

APR 9 2009

REPLY TO THE ATTENTION OF: AE-17J

**CERTIFIED MAIL**
**RETURN RECEIPT REQUESTED**

Kenneth Mentzel, Manager
Environmental Control
U.S. Steel Corporation – Gary Works
One North Broadway
Gary, Indiana 46402-3199

RE: Notice and Finding of Violations issued to U.S. Steel Corporation – Gary Works

Dear Mr. Mentzel:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violations and Finding of Violations (Notice) to the United States Steel Corporation (U.S. Steel). This Notice is issued in accordance with Section 113(a) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a).

EPA has determined that U.S. Steel is violating the Prevention of Significant Deterioration requirements under Section 165 of the Act, 42 U.S.C. § 7475, the Non-Attainment New Source Review requirements under Section 173 of the Act, 42 U.S.C. §§ 7503-15; the Indiana State Implementation Plan, Title V of the CAA, 42 U.S.C. § 7661a *et. seq.*, and the Indiana Title V Permit Program, 326 IAC 2-7, at its Gary Works facility, located in Gary, Indiana.

EPA is offering you an opportunity to confer with us about the violations cited in the NOV/FOVs. The conference will give you an opportunity to present information on the specific findings of violations, and the steps you will take to bring the facilities into compliance. Please plan for your technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

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You may call may contact Ethan Chatfield at (312) 886-5112 to request a conference. You should make your request for a conference no later than 10 calendar days after you receive this letter, and we should hold any conference within 30 calendar days of your receipt of this letter.

Sincerely yours,

Cheryl L. Newton
Director
Air and Radiation Division

Enclosure

cc: Phil Perry, Branch Chief
Office of Air Quality / Compliance Branch
Indiana Department Environmental Management

Sierra Cutts, Deputy Attorney General
Office of the Indiana Attorney General

David W. Hacker, Attorney
United States Steel Corp.
Law Department

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 5**

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| **IN THE MATTER OF:** | ) | |
| | ) | |
| | ) | |
| **United States Steel Corporation** | ) | **To Proceedings Pursuant** |
| **Gary Works** | ) | **Section 113(a)(1) and (a)(3) of the** |
| **Gary, Indiana** | ) | **Clean Air Act,** |
| | ) | **42 U.S.C. §7413(a)(1) and (a)(3)** |
| | ) | |
| | ) | **EPA-5-09-10-IN** |
| | ) | |
| | ) | |

## NOTICE AND FINDING OF VIOLATION

This Notice and Finding of Violation (Notice) is issued to U.S. Steel Corporation (U.S. Steel) for violations of the Clean Air Act (Act), 42 U.S.C. §§ 7401 *et seq.*, at their Gary Works Integrated Steel Mill located in Gary Indiana.

This Notice is issued pursuant to Sections 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (3). The authority to issue this Notice has been delegated to the Regional Administrator of U.S. EPA Region 5, and redelegated to the Director, Air and Radiation Division.

### A. STATUTORY AND REGULATORY BACKGROUND

#### Prevention of Significant Deterioration

1. On June 19, 1978, EPA promulgated regulations pursuant to Part C of Title I of the Act. 43 *Fed. Reg.* 26403 (June 19, 1978).

2. The Prevention of Significant Deterioration (PSD) provisions of Part C of Title I of the Act, and the implementing regulations at 40 C.F.R. § 52.21, require preconstruction review and permitting for modifications of stationary sources. *See* 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. *See* 40 C.F.R. § 52.21(a)(2)(i). 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.

3. 40 C.F.R § 52.21(2)(iii) provides that "no stationary source or modification to which the requirements of paragraphs (j) through (r) of this section apply shall begin actual construction without a permit that states that the stationary source or modification would meet those requirements."

4. The PSD regulations define "major modification" as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase" of a regulated pollutant. 40 C.F.R § 52.21(b)(2)(i).

5. Pursuant to Section 110 of the Act, 42 U.S.C. § 7410, each State is responsible for submitting to EPA for approval an implementation plan which specifies how the State will achieve, maintain, and enforce all primary and secondary NAAQS in the State.

6. Under Section 110(a) of the Act, each State Implementation Plan (SIP) must include a permit program to regulate the modification and construction of any stationary source of air pollution as necessary to assure that NAAQS are achieved. These plans are required to include enforceable emission limitations, control measures, and schedules for compliance. Upon EPA's approval of a SIP, the plans become independently enforceable by the federal government, as stated under Section 113(a) of the Act, 42 U.S.C. § 7413(a).

7. The PSD regulations, at 40 C.F.R. § 52.21(a), state that, "The provisions of this section are applicable to any [SIP] which has been disapproved with respect to prevention of significant deterioration of air quality in any portion of any State where the existing air quality is better than the national ambient air quality standards."

8. On August 7, 1980, EPA disapproved Indiana's proposed PSD program, 45 Fed. Reg. 52676, 52741 (August 7, 1980), and then incorporated by reference the PSD regulations of 40 C.F.R. § 52.21(b) through (w) into the Indiana SIP, 46 Fed. Reg. 9580, 9583 (January 19, 1981). 40 C.F.R. § 52.793. On March 3, 2003, EPA conditionally approved Indiana's PSD program. 68 Fed. Reg. 9892 (effective April 2, 2003). On June 18, 2007, EPA partially approved Indiana's NSR Reform regulations. 72 Fed. Reg. 33395 (effective July 18, 2007).

**Non-Attainment New Source Review**

9. The Non-Attainment New Source Review (NA NSR) provisions of Part D of Title I of the Act require preconstruction review and permitting for modifications of stationary sources. *See* 42 U.S.C. §§ 7470-7492. Pursuant to applicable regulations, if a major stationary source located in a non-attainment area is planning to make a major modification, then that source must obtain a non-attainment NSR permit before beginning actual construction. *See* 40 C.F.R. § 51.160(i). To obtain this permit, the source must, among other things, undergo a technology review and apply Lowest Achievable Emission Reduction (LAER); obtain offset credits; perform a source impact analysis; perform an air quality analysis and modeling; submit appropriate information; and conduct additional impact analyses as required.

10. On February 16, 1982, EPA approved Indiana's Nonattainment NSR SIP rules, which were incorporated into Section 19 of the Indiana Air Pollution Code (APC 19). 47 Fed. Reg. 6621 (February 16, 1982). APC 19 governed the preconstruction review of modifications of facilities in nonattainment areas that occurred prior to December 6, 1994, when subsequent regulations went into effect. The definitions applicable to the APC 19 Nonattainment NSR provisions were codified at 325 Indiana Administrative Code (IAC) 1-1. 46 Fed. Reg. 54941 (November 5, 1981), and became effective on December 6, 1981.

11. On February 25, 1994, Indiana submitted revisions to its SIP to satisfy the new NSR requirements of the 1990 Clean Air Act Amendments. On October 7, 1994, EPA approved Sections 2-1 and 2-3 of Chapter 326 of the Indiana Administrative Code (326 IAC 2-1, 2-3) as SIP revisions replacing APC 19. 59 Fed. Reg. 51108 (Oct. 7, 1994) (effective December 6, 1994). 40 C.F.R. § 52.770(c)(94). Included in the NSR SIP revisions were changes to the definitions previously codified at 325 IAC 1-1; the definitions now applicable to NSR in Indiana appear at 326 IAC 2-3-1.

12. For construction or major modification of a major stationary source *on or after* December 6, 1994 in a nonattainment area, the Indiana Nonattainment NSR SIP prohibits such construction or modification without first obtaining a permit in accordance with NSR requirements, which include the achievement of LAER and offsetting emission reductions. 326 IAC 2-1. In this context, a "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 net emissions increase of any pollutant which is being regulated under the Clean Air Act." 326 IAC 2-3-1. A "major stationary source" is also defined in this context as "any stationary source of air pollutants which emits, or has the potential to emit, one hundred (100) tpy or more of any air pollutant subject to regulation under the Clean Air Act." 326 IAC 2-3-1.

**Title V Requirements**

13. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), provides that no source may operate without a Title V permit after the effective date of any permit program approved or promulgated under Title V of the Act. EPA first promulgated regulations governing state operating permit programs on July 21, 1992. *See* 57 *Fed. Reg.* 32295; 40 C.F.R. Part 70. EPA promulgated regulations governing the Federal operating permit program on July 1, 1996. *See* 61 *Fed. Reg.* 34228; 40 C.F.R. Part 71.

14. Section 503 of the CAA, 42 U.S.C. § 7661b, sets forth the requirement to timely submit an application for a permit, including information required to be submitted with the application.

15. Section 504(a) 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. 42 U.S.C. § 7661c(a).

16. 40 C.F.R. § 70.1(b) provides that: "All sources subject to these regulations shall have a permit to operate that assures compliance by the source with all applicable requirements." *See also* 35 IAC 201 and 326 IAC 2-7-2.

17. 40 C.F.R § 70.2 defines "applicable requirement" to include "(1) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the Act that implements the relevant requirements of the Act, including revisions to that plan promulgated in part 52 of this chapter . . ."

18. 40 C.F.R. § 70.7(b) provides that no source subject to 40 C.F.R. Part 70 requirements may operate without a permit as specified in the Act. *See also* 35 IAC 201 and 326 IAC 2-7-2.

19. 40 C.F.R. § 70.5(a) and (c) require timely and complete permit applications for Title V permits with required information that must be submitted and 40 C.F.R. § 70.6 specifies required permit content. *See also* 35 IAC 201 and 326 IAC 2-7-2.

20. 40 C.F.R. § 70.5(b) provides that: "Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit." *See also* 35 IAC 201 and 326 IAC 2-7-2.

21. EPA gave interim approval of the Indiana Title V program on November 14, 1995. *See* 60 Fed. Reg. 57188 (effective on December 14, 1995). EPA fully approved the Indiana Title V program on December 4, 2001. *See* 66 Fed. Reg. 629469 (effective on November 30, 2001).

22. The Indiana Title V operating permit program at 326 IAC 2-7-3 provides that it is unlawful to violate any requirement of a permit issued under Title V or to operate a major source except in compliance with a permit issued by a permitting authority under Title V.

23. 326 IAC 2-7-5 provides that each Title V permit include, among other things, enforceable emission limitations and standards as are necessary to assure compliance with applicable requirements of the Act and the requirements of the applicable SIP.

24. 326 IAC 2-7-4 requires that a source submit a complete permit application which, among other things, identifies all applicable requirements, certifies compliance with all applicable requirements.

## B. FACTUAL BACKGROUND

25. United States Steel Corporation is a Pennsylvania corporation, authorized to do business in Indiana.

26. U.S. Steel is a "person," as that term is defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).

27. At all times relevant to this Notice, U.S. Steel was the owner and operator of the Gary Works Integrated Steel Mill located in Gary, Indiana.

28. The U.S. Steel – Gary Works Mill is located in Lake County, which was classified as non-attainment for $PM_{2.5}$ (particles with an aerodynamic diameter less than or equal to a nominal 2.5 microns), sulfur dioxide ($SO_2$), 1-hour ozone, the 8-hour ozone standard at the time the relining of the No. 13 Blast Furnace (now identified as No. 14 Blast Furnace).

29. The U.S. Steel – Gary Works Mill is an "iron and steel mill plant". Therefore, the facility constitutes a "major stationary source" within the meaning of 40 C.F.R. § 52.21(b)(1)(i)(a); and a "major emitting facility" within the meaning of Section 169(1) of the Act, 42 U.S.C. § 7479(1).

30. On September 24, 2004, U.S. Steel – Gary Works submitted an application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality to reline one of four existing blast furnaces, located at One North Broadway, Gary, Indiana.

31. On or about October 2005, U.S. Steel began relining of No. 13 Blast Furnace (now identified as No. 14 Blast Furnace). The relining project consisted, in part, of the following activities:

(a) Replacement of the furnace refractory lining with new and thinner refractory brick;
(b) Replacement of furnace shell;
(c) Removal and replacement of the top charging system with a new "bell-less" charging system;
(d) Placement of new copper staves in the mantle area of the furnace;
(e) Installation of new copper cooling places and a new bustle pipe;
(f) Repair of the checker work brick in the stoves and various structural, mechanical, and electrical repairs;
(g) Enlargement of the slag granulator and addition of a stack;
(h) Changes to the casthouse and casthouse emission control system to improve capture efficiency of hoods at the tap holes, iron troughs, and runners; and
(i) Removal and replacement of the existing system for cleaning blast furnace gas with a more efficient scrubbing system.

32. Permit No.089-20118-00121 for the relining of Blast Furnace 13, identified in paragraph 31, stated that "based on the Actual-to-Projected Actual Applicability test for existing major sources under 326 IAC 2-2-2(d)(3) and 326 IAC 2-3-2(c)(3), [the relining activities] will not be major for Prevention of Significant Deterioration (PSD) under 326 IAC 2-2 and Emission Offset under 326 IAC 2-3." Accordingly, the activities conducted on Blast Furnace 13/14 were not considered a major modification and were not subject to the requirements under PSD or non-attainment New Source Review.

## C. NOTICE AND FINDING OF VIOLATIONS

**Violations of the New Source Review and Prevention of Significant Deterioration Provisions**

33. The "relining activities" identified in Permit No. 089-20118-00121 resulted in a significant net emissions increase of one or more criteria pollutants as defined at 40 C.F.R. § 52.21(23)(i), 40 C.F.R. § 51.165(a)(1)(x) when the Actual-to-Projected Actual Applicability test in 40 C.F.R. § 52.21(a)(2)(iv)(c) and 326 IAC 2-2 and 2-3 is applied.

34. U.S. Steel failed to obtain a major NSR permit as required by 40 C.F.R. § 52.21(i)(1) and 326 IAC 2-2 and 326 IAC 2-3 of the Indiana SIP.

35. U.S. Steel violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), 40 C.F.R. § 52.21, 326 IAC 2-3-1, and 326 IAC 2-2-1 by constructing a major modification, identified in paragraph 31, to existing major sources at the Gary Works Mill without, in part, obtaining NA-NSR/PSD permits and applying LAER and/or BACT.

**Violations of the Title V Permit**

36. U.S. Steel violated and continues to violate 40 C.F.R. § 70.5 by failing to supplement or correct the Title V permit applications for the Gary Works Mill. See 40 C.F.R. § 70.5(b).

## D. ENFORCEMENT

37. Section 113(a) (1) of the Act, 42 U.S.C. § 7413(a)(1), provides that at any time after the expiration of 30 days following the date of the issuance of a Notice of Violation, the Administrator may, without regard to the period of violation, issue an order requiring compliance with the requirements of the state implementation plan or permit, issue an administrative penalty order pursuant to Section 113(d), or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

38. Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), provides in part that if the Administrator finds that a person has violated, or is in violation of any requirement or prohibition of any rule...promulgated...under...[Title I or Title V of the Act], the Administrator may issue an administrative penalty order under Section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

**E. EFFECTIVE DATE**

Dated: 4/9/09

Cheryl L. Newton
Director
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Betty Williams, certify that I sent a Notice of Violation and Finding of Violation, No. **EPA-5-09-10-IN**, by Certified Mail, Return Receipt Requested, to:

Kenneth Mentzel, Manager
Environmental Control
U.S. Steel Corporation – Gary Works
One North Broadway
Gary, Indiana 46402-3199

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

Phil Perry, Branch Chief
Office of Air Quality / Compliance Branch
Indiana Department Environmental Management
100 North Senate Avenue / Room IGCN 1003
Indianapolis, Indiana 46204-2251

Sierra Cutts, Deputy Attorney General
Office of the Indiana Attorney General
Indiana Government Center South
302 West Washington Street
Indianapolis, Indiana 46204

David W. Hacker
Attorney
United States Steel Corp.
Law Department
600 Grant Street - Room 1500
Pittsburgh, PA 15219

On the 10th day of April, 2009

Betty Williams
Betty Williams, Administrative
Program Assistant

Certified Mail Receipt Number: 7001 0320 0005 8915 9686