

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**IN THE MATTER OF:** )  
 )  
North Star BHP Steel, Ltd. ) **NOTICE OF VIOLATION**  
Delta, Ohio )  
 ) **EPA-5-99-OH-39**  
 )  
Proceedings Pursuant to )  
Section 113(a)(1) of the )  
Clean Air Act, )  
42 U.S.C. § 7413(a)(1) )

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**NOTICE OF VIOLATION**

The Administrator of the United States Environmental Protection Agency (U.S. EPA), by authority duly delegated to the undersigned, is issuing this Notice of Violation pursuant to Section 113(a)(1) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a)(1). U.S. EPA finds that North Star BHP Steel, Ltd. (North Star), located at 6767 County Road 9, Delta, Ohio, is in violation of the Ohio State Implementation Plan (SIP), as follows:

**Statutory and Regulatory Background**

1. Section 110 of the Act, 42 U.S.C. §7410, requires that each State adopt and submit a plan which provides for the implementation, maintenance, and enforcement of any national primary or secondary standard established pursuant to Section 109 of the Act, 42 U.S.C. § 7409. Section 110 requires each plan to include enforceable emission limitations, control measures, schedules for compliance and permit programs for new sources. In accordance with this, the Administrator promulgated regulations at 40 C.F.R. §§51.100- 51.860 setting forth State Implementation Plan (SIP) approval requirements.
2. Part C of the Act, 42 U.S.C. §§7470-7492, requires the Administrator to promulgate regulations to prevent the significant deterioration (PSD) of air quality in areas designated as attainment or unclassifiable in accordance with Section 107(d) of the Act, 42 U.S.C. §7407(d). In accordance with this requirement, the Administrator promulgated regulations at 40 C.F.R. §51.166 setting forth State SIP approval requirements for the prevention of significant deterioration of air quality.

3. Pursuant to Section 110(a) of the Act, 42 U.S.C. §7410(a), the Administrator approved AP-7 on April 15, 1974 (39 Fed. Reg. 13539). The approval became effective on April 15, 1974. AP-7 has been recodified at Ohio Administrative Code (OAC) Chapter 3745-23-06(B).

4. OAC Chapter 3745-23-06(B) states that "[e]xcept as otherwise provided in these regulations, all stationary nitrogen oxide emission sources shall minimize nitrogen oxide emissions by use of latest available control techniques and operating practices in accordance with best current technology."

5. Section 161 of the Act, 42 U.S.C. §7471, and 40 C.F.R. §51.166(a)(1) require the States to submit SIPs containing emission limitations and other measures necessary to prevent the significant deterioration of air quality. Pursuant to Section 110(a) of the Act, 42 U.S.C. §7410(a), the Administrator determined the Ohio SIP did not satisfy the measures required to ensure the prevention of significant deterioration of air quality. As a result, the Administrator disapproved the PSD portion of the Ohio SIP, 40 C.F.R. §52.1884(a).

6. In accordance with Section 110(c) of the Act, 42 U.S.C. §7410(c) and 40 C.F.R. §52.21(a), the Administrator incorporated the provisions of 40 C.F.R. §52.21(b) through (w) [PSD Regulations] as part of the Ohio SIP, 40 C.F.R. §52.1884(b). (45 Fed. Reg. 52741). The effective date of the incorporation of the PSD regulations as part of the Ohio SIP was August 7, 1980.

7. Section 165(a)(1) of the Act, 42 U.S.C. § 7475 (a)(1), and 40 C.F.R. §52.21(i) prohibit construction of a major stationary source or a major modification without a permit issued under the PSD regulations in any area which has attained the National Ambient Air Quality Standards (NAAQS).

8. "A Major stationary source" is defined at 40 C.F.R. §52.21(b)(1)(i)(a) as "[a]ny of the following stationary sources of air pollution which emits, or has the potential to emit, 100 tons per year or more of any pollutant subject to regulation under the Act: ...iron and steel mill plants...."

9. 40 C.F.R. §52.21(r)(1) provides that "[a]ny 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."

10. 40 C.F.R. §52.23 provides that "[f]ailure to comply with any provisions of this part, or with any approved regulatory provision of a State implementation plan, or with any permit condition or permit denial issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, ... shall render the person or governmental entity so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113(c) the Clean Air Act."

### **Factual Background**

11. North Star is the owner and operator of a steel-producing minimill located at 6767 County Road 9, Delta, Ohio (the Delta Facility). The Delta Facility includes an electric arc furnace and two ladle metallurgical furnaces which emit, among other things, SO<sub>2</sub>, VOC, CO and NO<sub>x</sub> which are pollutants subject to regulation under Sections 160-169 of the Act, 42 U.S.C. §§ 7470-7479. As such, the Delta Facility is a "stationary source" as defined in Section 302(z) of the Act, 42 U.S.C. § 7602(z), and 40 C.F.R. § 52.21(b)(5).

12. The Facility is located in Fulton County, which, in 1994 and 1995, was an area that had been designated as attainment or unclassifiable for CO, NO<sub>x</sub>, SO<sub>2</sub> and ozone (VOC) .

13. In October 1994, North Star submitted an application for a permit to construct the Delta Facility to the Ohio Environmental Protection Agency (OEPA).

14. Based on information North Star submitted to OEPA and U.S. EPA, the Delta Facility emits or has the potential to emit 100 tons per year or more of CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC. Thus, the Delta Facility is a "major emitting facility" as defined in Section 169(1) of the Act, 42 U.S.C. § 7479(1), and a "major stationary source" as defined in 40 C.F.R. § 52.21(b)(1)(i) and subject to regulation under Part C of the Act and 40 C.F.R. §§ 52.21(b) through (w).

15. On February 1, 1995, OEPA issued a permit to install (PTI) to North Star for a 1.75 million TPY steel mill. The PTI was issued based on information supplied by North Star relating to emissions of regulated pollutants, including but not limited to , NO<sub>x</sub> , CO, VOC, and SO<sub>2</sub>. On September 25, 1996, OEPA issued a modified final PTI to North Star for a 2.25 million TPY Steel

Mill. On March 5, 1997, OEPA issued a second modified PTI to North Star to "correct addresses that appear in the NSPS requirements on page 9 and reporting requirements, malfunction/abatement terms and conditions on page 11 due to administrative error". The PTIs, each included a Best Available Technology (BAT) determination on the electric arc furnace and other emission sources at the facility, in accordance with OAC rules 3745-23-03 and 3745-31-05, and a testing requirement.

16. The February 1, 1995 PTI included in the allowable emission limits for the EAF (P901) an emission limit of 110.3 lbs NOx/hr and 630.0 lbs CO/hr. The February 1, 1995, PTI also included in the emission limits an emission limit of 3.16 lbs NOx/hr and 79.00 lbs CO/hr for each LMF (P902 and P903). The permit also included, as a special term and condition, an emission limit of 116.6 lbs NOx/hr, 323.8 tons NOx/yr, from the EAF and LMFs together based upon an emission factor of .35 lbs NOx/ton of steel produced from the EAF and .02 lbs NOx/ton steel produced for the LMFs. The permit also included, as a special term and condition, an emission limit of 787.5 lbs CO/hr, 2187.5 tons CO/yr, from the EAF and LMFs together based upon an emission factor of 2.0 lbs CO/ton of steel produced from the EAF and .5 lbs CO/ton steel produced for the LMFs. The permit also required that, within 60 days after achieving the maximum production rate at which the EAF and ladle melt stations will be operated, but not later than 180 days after initial startup of the facility, North Star shall conduct emissions tests for Sources P901, P902, and P 903 in order to demonstrate compliance with the mass emission limits for particulate matter (TSP and PM10), SO2, NOx, CO, and VOCs.

17. On September 25, 1996, OEPA issued a modified final PTI to North Star for a 2.25 million TPY Steel Mill. The permit retained the NOx and CO hourly emission limits for the EAF and LMF but revised the yearly combined emission limits found in the special terms and conditions section of the permit. The revised yearly limits were changed from combined limits for the EAF and LMFs to individual limits for the EAF and each L.F. The new annual limits for the EA. were 393.8 T NOx/yr (.35 lb/ton steel produced) and 2250.0 T CO/yr (2.0 lbs /ton of steel produced). The new annual limits for each L.F. were 11.16 T NOX /yr (.02 lbs/ ton steel produced) and 281.3 T CO/yr (0.5 lbs CO per ton of steel produced). The requirements for testing NOX and CO at the EA. and LMFs did not change. The emission limitation and testing requirements in the September 1996 permit and referred to in this paragraph were not changed in the March 5, 1997 permit. ,

18. The PTI issued by OEPA to North Star required that stack tests for NO<sub>x</sub>, CO, VOC., and SO<sub>2</sub> were to be conducted at the North Star facility no later than 180 days after startup. North Star started up on February 24, 1997. However, an explosion occurred on February 27, 1997, and North Star requested that OEPA move the official startup date to March 27, 1997. Testing should have taken place on or about September 22, 1997. In a letter dated July 15, 1997, North Star stated its understanding that OEPA was allowing it to test for particulate and opacity by November 23, 1997, and for the non-NSPS gases (which include NO<sub>x</sub>, CO, VOC, and SO<sub>2</sub>) within a month of the tests for particulate and opacity. In a letter dated September 10, 1997, from North Star's consultant to OEPA, the consultant noted that the particulate and opacity tests had to be rescheduled to October 14, 1997, the 180 day period for testing was to expire on November 27, 1997, and testing for the non-NSPS gases would have to occur by December 27, 1997. In a letter dated September 26, 1997, OEPA agreed to a test date of October 14, 1997, for the particulate and opacity tests. Testing for particulate and opacity took place on October 14 and 15, 1997.

19. In a letter dated January 30, 1998, North Star informed OEPA that, for a variety of reasons, it would not be performing off gas testing at the EAF and LMFs until certain equipment changes had been completed, a project expected to take at least 4 to 6 months. In a letter dated June 25, 1998, from OEPA to North Star, OEPA rejected North Star's tests of October 1997 and requested that tests be performed for multiple metals, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC. In a letter dated August 4, 1998, from North Star to OEPA, North Star proposed testing for VOC, SO<sub>2</sub>, NO<sub>x</sub>, and CO take place between late October and early November 1998. In a letter dated August 14, 1998, from OEPA to North Star, OEPA accepted the proposed testing schedule.

20. In a letter dated July 22, 1999, North Star informed U.S. EPA that it has not yet performed the tests required by the PTI for NO<sub>x</sub>, CO, VOCs and SO<sub>2</sub>.

21. In a May 25, 1999, U.S.EPA request for information submitted to North Star pursuant to Section 114 of the Act, North Star was asked to submit summaries of all air emission tests conducted and to provide such information for any tests that occur within the next three months. In a response dated June 10, 1999, North Star submitted results for what it described as "unofficial testing" of the EAF and LMF for SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC. The "unofficial testing" took place on December 18, 1998. The results of the unofficial tests are summarized in table 1 below. No test results for "official" tests have been submitted to

U.S.EPA.

Table 1

Date of test	Source	Pollutant	Emission limit * lbs/hr	emission rate as tested lbs/hr
12-18-98	EAF and LMFs	NOx	116.62	131.9
12-18-98	EAF and LMFs	CO	787.6	1783.7

\* emission limit reported in test data provided by North Star BHP Steel Ltd.

22. In addition, in July 1999, North Star submitted test data to the permit group in the Air & Radiation Division of U.S. EPA indicating that the company has been employing a testing/monitoring device known as an ENERAC to determine CO emission levels from the baghouse which controls the EAF and LMFs at the North Star facility. The results of that testing were not submitted pursuant to the Section 114 letter. The results submitted by North Star are summarized in table 2 below.

Table 2

Date of test	Emission limit * lbs CO /hr	Emission rate based on testing lbs CO /hr
3-5-99	787.6	1,935
3-15-99	787.6	1,389
3-18-99	787.6	2,629
3-24-99	787.6	1,633
3-25-99	787.6	1,598
4-7-99	787.6	1,753
4-8-99	787.6	2,074

4-15-99	787.6	834
4-16-99	787.6	2,183
4-20-99	787.6	851
4-21-99	787.6	1,808
4-25-99	787.6	1,660
5-3-99	787.6	859
5-4-99	787.6	1,535
5-4-99	787.6	1,057
5-5-99	787.6	1,261
6-28-99	787.6	1,029
6-29-99	787.6	1,503
6-30-99	787.6	1,786
7-7-99	787.6	1,843

\* Based on CO limit reported in December 1998 test report

23. In addition to the emission data cited above, the following documents were submitted by North Star to OEPA as part of a request to revise CO and NOx limits in North Star's PSD permit:

i. A letter dated March 18, 1999, from James Amburgey of North Star to Don Waltermeyer of OEPA. An attachment to the letter discusses the current NOx limit and the reasons it must be raised.

ii. A letter dated February 8, 1999, from from James Amburgey of North Star to Don Waltermeyer of OEPA. An attachment to the letter discusses the current CO limit and the reasons it cannot be met.

24. North Star's permit application and its PTI did not establish operating practices to minimize NOx emissions. In an addendum to a March 18, 1999, letter from North Star to OEPA, North Star describes the efforts it has made to lower NOx emissions. Some of the efforts are "operating practices" that should have been implemented from the time of start up but were not.

**Findings of Violation**

25. North Star has failed to comply with its PTI due to its failure to conduct emissions tests for Sources P901, P902, and P903 in order to demonstrate compliance with the mass emission limits for SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOCs contained in its PTI. Pursuant to 40 C.F.R. § 52.23, North Star is in violation of the PSD requirements of the Ohio SIP due to its failure to comply with the conditions of its permit.

26. North Star has failed to comply with SIP regulation OAC 3745-23-06(B) because it did not minimize nitrogen oxide emissions by use of latest available control techniques and operating practices in accordance with best current technology".

27. North Star Steel has failed to comply with the emission limits for CO and NO<sub>x</sub> emissions from Sources P901, P902, and P903 established in its PTI. Pursuant to 40 C.F.R. § 52.23, North Star is in violation of the PSD requirements of the Ohio SIP due to its failure to comply with the conditions of its permit.

8/30/99

Date



Margaret M. Guerriero, Acting Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Loretta Shaffer, certify that I sent a Notice of Violation, issued pursuant to the Clean Air Act, by Certified Mail, Return Receipt Requested, to:

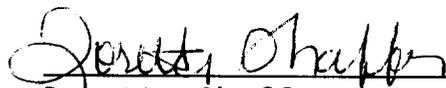
Noel Cornish, President  
North Star BHP Steel, Ltd.  
6767 County Road 9  
P.O. Box 128  
Delta, Ohio 43515

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

James E. Amburgey, EHS Manager  
North Star BHP Steel, Ltd.  
6767 County Road 9  
P.O. Box 128  
Delta, Ohio

Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Protection Agency  
Lazarus Government Center  
P.O. Box 1049  
Columbus, Ohio 43216-1049

on the 31<sup>st</sup> day of August, 1999.

  
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Loretta Shaffer, Secretary  
AECAS, MN-OH

CERTIFIED MAIL RECEIPT NUMBER: P140 895 439