

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED STATES STEEL)	
CORPORATION,)	
a Delaware corporation,)	
)	
Petitioner,)	
)	
v.	)	PCB 2013-_____
	)	(Permit Appeal-Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

NOTICE OF FILING

TO: Mr. John Therriault
Assistant Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601
(VIA ELECTRONIC MAIL)

(SEE PERSONS ON ATTACHED SERVICE LIST)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board a copy of United States Steel Corporation's **ENTRY OF APPEARANCE OF KATHERINE D. HODGE, ENTRY OF APPEARANCE OF MONICA T. RIOS, PETITION FOR REVIEW OF A CONSTRUCTION PERMIT WITH INTEGRATED PROCESSING, and MOTION FOR STAY OF EFFECTIVENESS OF CONTESTED CONDITIONS**, a copy of which is hereby served upon you.

Respectfully submitted,
UNITED STATES STEEL CORPORATION,
Petitioner,

Dated: May 6, 2013

By: /s/ Katherine D. Hodge
Katherine D. Hodge

Katherine D. Hodge
Monica T. Rios
HODGE DWYER & DRIVER
3150 Roland Avenue
Post Office Box 5776
Springfield, Illinois 62705-5776
(217) 523-4900

CERTIFICATE OF SERVICE

I, Katherine D. Hodge, the undersigned, certify that I have served the attached
ENTRY OF APPEARANCE OF KATHERINE D. HODGE, ENTRY OF
APPEARANCE OF MONICA T. RIOS, PETITION FOR REVIEW OF A
CONSTRUCTION PERMIT WITH INTEGRATED PROCESSING, and MOTION FOR
STAY OF EFFECTIVENESS OF CONTESTED CONDITIONS upon:

Mr. John Therriault
Assistant Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

via electronic mail on May 6, 2013; and upon:

Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

by depositing said documents in the United States Mail, postage prepaid, in Springfield,
Illinois, on May 6, 2013.

By: /s/ Katherine D. Hodge
Katherine D. Hodge

USSC:003/Fil/NOF-COS-EOAs-Mtn To Stay-Petition for Review

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED STATES STEEL)	
CORPORATION,)	
a Delaware corporation,)	
)	
Petitioner,)	
)	
v.	)	PCB 2013-_____
	)	(Permit Appeal-Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

ENTRY OF APPEARANCE OF KATHERINE D. HODGE

NOW COMES Katherine D. Hodge, of the law firm of HODGE DWYER & DRIVER, and hereby enters her appearance on behalf of Petitioner, UNITED STATES STEEL CORPORATION, in the above-referenced matter.

Respectfully submitted,

UNITED STATES STEEL CORPORATION,
Petitioner,

By: /s/ Katherine D. Hodge
One of Its Attorneys

Dated: May 6, 2013

Katherine D. Hodge
HODGE DWYER & DRIVER
3150 Roland Avenue
Post Office Box 5776
Springfield, Illinois 62705-5776
(217) 523-4900

USSC:003/Fil/EOA KDH

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED STATES STEEL)	
CORPORATION,)	
a Delaware corporation,)	
)	
Petitioner,)	
)	
v.	)	PCB 2013-_____
	)	(Permit Appeal-Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

ENTRY OF APPEARANCE OF MONICA T. RIOS

NOW COMES Monica T. Rios, of the law firm of HODGE DWYER & DRIVER, and hereby enters her appearance on behalf of Petitioner, UNITED STATES STEEL CORPORATION, in the above-referenced matter.

Respectfully submitted,

UNITED STATES STEEL CORPORATION,
Petitioner,

By: /s/ Monica T. Rios
Monica T. Rios

Dated: May 6, 2013

Monica T. Rios
HODGE DWYER & DRIVER
3150 Roland Avenue
Post Office Box 5776
Springfield, Illinois 62705-5776
(217) 523-4900

USSC:003/Fil/EOA MTR

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED STATES STEEL)	
CORPORATION,)	
a Delaware corporation,)	
)	
Petitioner,)	
)	
v.	)	PCB 2013-_____
	)	(Permit Appeal-Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

**PETITION FOR REVIEW OF A
CONSTRUCTION PERMIT WITH INTEGRATED PROCESSING**

NOW COMES Petitioner, UNITED STATES STEEL CORPORATION (hereinafter "U.S. Steel"), by and through its attorneys, HODGE DWYER & DRIVER, pursuant to Section 40(a)(1) and Section 40.2 of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/40(a) and 40.2, and 35 Ill. Admin. Code § 105.204 and Part 105, Subpart C, and petitions the Illinois Pollution Control Board ("Board") for review of the Construction Permit (Subject to Integrated Processing) issued to U.S. Steel by the Illinois Environmental Protection Agency ("Illinois EPA") on April 1, 2013. In support of this Petition, U.S. Steel states as follows:

I. BACKGROUND

1. In November 2011, U.S. Steel submitted an application for a construction permit to authorize construction of an emission reduction project. For this project, U.S. Steel will construct a new baghouse to control particulate emissions from charging and tapping at the basic oxygen process furnaces ("BOF").

2. On April 1, 2013, Illinois EPA issued the Construction Permit (Subject to Integrated Processing) ("Construction Permit") to U.S. Steel, authorizing the construction of the new baghouse. The Construction Permit is attached hereto as Exhibit A.

3. The Construction Permit also authorized revisions to U.S. Steel's Clean Air Act Permit Program permit ("CAAPP Permit") via administrative amendment because the Construction Permit was subject to integrated processing, meaning that the Construction Permit "was subject to procedural requirements and includes compliance requirements that are substantially equivalent to those that apply to CAAPP permits." The revisions authorized to be made to the CAAPP Permit are specified in Part 2 (Changes that are "Pre-Authorized" to the CAAPP Permit) of the Construction Permit.

4. As discussed in more detail below, U.S. Steel's CAAPP Permit is the subject of an appeal proceeding before the Board. Because the issuance of the Construction Permit includes conditions in Part 2 of the Construction Permit that are identical to several of the contested conditions in the CAAPP Permit appeal, U.S. Steel is hereby contesting those same conditions in Part 2 of the Construction Permit in this Petition on the same basis as articulated in the CAAPP Permit appeal and discussed in Sections III and IV below.

5. U.S. Steel is contesting the following conditions in Part 2 of the Construction Permit:

- Condition 7.5.6(b) – Annual NOx and VOM Emission Limits for the BOF Shop;

- Condition 7.5.6(c)-(g) – Emission Factors for BOF Shop Activities, NO_x and VOM Annual Maximum Emissions for the BOF ESP Stack, and failure to include a note regarding a compliance schedule (See Condition 7.5.13);
- Condition 7.5.13 – Compliance Schedule and Current Enforcement Status: Failure to include a compliance schedule for NO_x and VOM emissions from the BOF Shop; and

A table listing the contested conditions in Part 2 of the Construction Permit is attached as Exhibit B.

6. U.S. Steel is contesting the identical conditions in Part 2 of the Construction Permit that are being contested in the CAAPP Permit appeal. For the reasons discussed in this Petition, Illinois EPA's final action with regard to the contested conditions was arbitrary, capricious and not supported by the Act or Board regulations. Accordingly, U.S. Steel seeks review of the contested conditions in Part 2 of the Construction Permit. The filing of this Petition is timely because it was filed with the Board within 35 days after issuance of the Construction Permit.

7. U.S. Steel is also filing contemporaneously herewith a Motion to Stay the Effectiveness of Contested Conditions in Part 2 of the Construction Permit and is requesting a stay of contested conditions in Part 2 of the Construction Permit during the pendency of the review process.

II. PROCEDURAL HISTORY

A. CAAPP Permit Appeal

8. U.S. Steel owns and operates an integrated iron and steel mill in Granite City, Illinois (the "Facility"), pursuant to its CAAPP Permit issued on March 4, 2013.

9. On April 8, 2013, U.S. Steel filed a Petition for Review of the CAAPP Permit and requested a stay of effectiveness of the contested conditions. Petition for Review, *United States Steel Corporation v. Illinois EPA*, PCB No. 13-53 (Ill.Pol.Control.Bd. April 8, 2013). U.S. Steel petitioned the Board for review of the CAAPP Permit based on two issues: 1) the inclusion of Condition 5.13 in the 2013 CAAPP Permit and explicit determination by Illinois EPA that “emission factors” incorporated in the CAAPP Permit from the Construction Permit/Prevention of Significant Deterioration (“PSD”) Approval No. 95010001 (“PSD Permit”) issued to National Steel, the prior owner and operator of the Facility, by Illinois EPA on January 25, 1996 (and subsequently revised and reissued on several occasions) are, in fact, enforceable “emission limits;” and 2) the failure of Illinois EPA to include a compliance schedule in the CAAPP Permit related to the Violation Notice (“VN”) issued to U.S. Steel by Illinois EPA on November 30, 2012.

10. Accordingly, U.S. Steel contested conditions of the CAAPP Permit establishing emission factors as emission limits and certain annual NOx and VOM emissions related for BOF Shop Activities at Condition 7.5.6, as well as other conditions of the CAAPP Permit with similarly established emission factors. *See* Attachment B, Petition for Review, PCB No. 13-53.

11. On May 2, 2013, the Board granted U.S. Steel’s Motion for Stay of Effectiveness of Contested Conditions in the CAAPP Permit appeal. Board Order, *United States Steel Corporation v. Illinois EPA*, PCB No. 13-53 (Ill.Pol.Control.Bd. May

2, 2013) (granting the stay of effectiveness of contested conditions until the Board takes final action in the matter or orders otherwise).

B. Integrated Processing of the Construction Permit

12. As noted above, the Construction Permit was subject to integrated processing in order to authorize certain changes to the CAAPP Permit via administrative amendment. Illinois EPA explained in the Project Summary¹ for the Construction Permit:

. . .[I]n conjunction with the planned issuance of a construction permit for the new baghouse control system for the BOP furnaces, the Illinois EPA is proposing to authorize changes to conditions the current [CAAPP] permit. . . . This is because this CAAPP permit contains certain requirements for control of the BOP furnaces with the existing ESP that would no longer be feasible, necessary or appropriate when particulate emissions are controlled by the combination of the new baghouse and the ESP control systems. . . . To provide clarity on applicable requirement for the ESP when secondary emissions of the BOP furnaces are controlled by the new baghouse system, it is appropriate that these obsolete conditions be removed from the CAAPP permit.

All of the changes to the current CAAPP permit for the Granite City Works that are proposed to be authorized pursuant to this construction permit are set forth in Part 2 of the draft construction permit.

Project Summary at 13 and 15. (Internal citations omitted.)

13. Part 2 of the Construction Permit includes several of the same contested conditions from Condition 7.5 of the CAAPP Permit that are currently the subject of the CAAPP Permit appeal. As discussed in more detail in Exhibit B to this Petition, U.S

¹ Project Summary/Statement of Basis for the Planned Issuance of a Construction Permit with Integrated Processing* for an Emission Reduction Project for the Existing Basic Oxygen Process Furnaces at United States Steel Corporation's Granite City Works Granite City, Illinois, Illinois EPA (May 2012). *As this application for a construction permit is being processed with "Integrated Processing," it is intended that certain changes, as specifically identified in the construction permit, if one is issued, would be authorized to be made to the Clean Air Act Permit Program (CAAPP) permit for the source by administrative amendment, as provided for by Section 39.5(13)(c)(v) of Illinois' Environmental Protection Act.

Steel is contesting the emission factors and annual NO_x and VOM emission limits for BOF Shop Activities in Condition 7.5.6(b) – (g) in Part 2 of the Construction Permit.

U.S. Steel is also contesting the failure by Illinois EPA to include a compliance schedule at Condition 7.5.13 for annual NO_x and VOM emissions from the BOF Shop, as related to the violation notice issued on November 30, 2012.

14. As explained below, for the same reasons that the emission factors and annual NO_x and VOM limits for BOF Shop activities were contested in the CAAPP Permit appeal, U.S. Steel is appealing the same conditions at Conditions 7.5.6 and 7.5.13 in Part 2 of the Construction Permit.² The appeal of these conditions in Part 2 of the Construction Permit is intended to be wholly consistent with the appeal of the identical conditions contested in the CAAPP Permit appeal. Further, U.S. Steel is seeking a stay of the contested conditions in Part 2 of the Construction Permit, which is also consistent with the stay of the same contested conditions granted by the Board in the CAAPP Permit appeal.

III. EMISSION FACTORS IN PART 2 OF THE CONSTRUCTION PERMIT ARE NOT EMISSION LIMITS.

A. General Background

15. Part 2 of the Construction Permit is entitled “Changes that are ‘Pre-Authorized’ to the CAAPP Permit.” Exhibit A at 14. As Illinois EPA explained in the

² Illinois EPA explained the authority for an appeal of a permit subject to integrated processing: “This permit was processed in accordance with Section 39.5(13)(c)(v) of the Act and 35 IAC 270.302(e) using ‘integrated processing’, i.e., it was subjected to procedural and compliance requirements substantially equivalent to those for a modification of a CAAPP permit. Any person who participated in the public comment process pursuant to 39.5(8) of the Act or any other person who could obtain judicial review pursuant to 41(a) of the Act, may within 35 days after final permit action petition for a hearing before the Illinois Pollution control Board to contest the attachment to the permit, ‘Part 2: Changes that are “pre-authorized” to the CAAPP Permit.’” Notice from Illinois EPA regarding Emission Reduction Project (April 1, 2013).

Project Summary and Statement of Basis, changes to the CAAPP Permit are necessary to accurately reflect operations at the Facility once the baghouse has been constructed.

These pre-authorized changes to the CAAPP Permit include “compliance requirements that are substantially equivalent to those that apply to CAAPP permits. . .” Project Summary at 14. Part 2 of the Construction Permit was also issued with the emission factors and annual NOx and VOM emission limits for BOP Shop activities that were originally established through Title I permitting and are currently subject of the CAAPP Permit appeal.

16. CAAPP permits must address emission limits established in preconstruction permits issued under regulations approved by USEPA in accordance with Title I of the CAA as such limits are considered “applicable requirements.” U.S. Steel’s CAAPP Permit, as well as Part 2 of the Construction Permit, includes conditions from the PSD Permit that was initially issued on January 25, 1996³ to National Steel, the former owner and operator of the Granite City Works. The PSD Permit addressed an expansion project that included increases in the production of iron from the two existing blast furnaces at the steel mill and an increase in the production of steel from the two existing BOP furnaces.

17. Consistent with the PSD program and regulations in place in 1996, the PSD Permit established maximum production rates for the Blast Furnace Operations, BOF Shop, Continuous Casting Operations, as well as maximum annual emission limits

³ After the issuance of the PSD Permit in 1996, the permit was subsequently revised several times (on July 23, 1996; October 18, 1996; April 2, 1997; June 6, 1997; January 5, 1999; June 25, 2002; and December 17, 2012). The emission factors established in the PSD Permit in 1996 have remained the same throughout the subsequent revisions to the PSD Permit.

for the related emission units and activities. The PSD Permit also included emission factors, by pollutant, for major processes and activities, including those for BOF activities, as described in Exhibit B.

C. **Emission Factors Are Not Emission Limits**

18. Although not included in Part 2 of the Construction Permit, the CAAPP Permit includes a new Condition 5.13 with new procedures for “emission limits” in which Illinois EPA details that both the emission factors and maximum emissions are “emission limits.” Condition 5.13 of the CAAPP Permit states, in relevant part:

Pursuant to Sections 39.5(7)(b) and (p)(v) of the Act, these procedures are applicable for the emission limits in Conditions 7.1.6(b)(i) through (iv), 7.4.6(b) through (f), 7.5.6(c) through (g) and 7.6.6(a) through (e), which address the rates of emissions or “emission factors” (commonly in pounds/ton) and the annual emissions or “maximum emissions” (in tons/year) of certain emission units . . .

Condition 5.13. (Emphasis added.)

19. Illinois EPA, in the Response to Comments issued with the CAAPP Permit, explained in regards to new Condition 5.13 that emission factors in the subject conditions are emission limits. Illinois EPA stated:

The initial discussion in new Condition 5.13, the General Procedures for Certain Permit Limits on Emissions, now explicitly indicates that the “emission factors” contained in the subject conditions are emission limits. This change has been made because of the continuing confusion displayed in comments about whether the emission factors in those conditions were limits or fixed values of emissions that US Steel could use to address compliance with the limits in the subject conditions for annual emissions. This change is consistent with the 2012 order as it stated that the Illinois EPA should consider clarifying in the Revised Permit that the emission factors in the subject conditions are, in fact, emission limits. *See*, 2012 Order, pages 8-9.

Response to Comments at 48. (Emphasis added.)

20. Thus, the CAAPP Permit, for the first time, explicitly stated in Condition 5.13 Illinois EPA's interpretation that the emission factors in the contested conditions at Condition 7.5.6, which are included in Part 2 of the Construction Permit, are emission limits.

21. While Illinois EPA asserted that new Condition 5.13 was added to the CAAPP Permit to clarify the purpose of the emission factors, by adding new Condition 5.13⁴ to the 2013 CAAPP Permit, Illinois EPA fundamentally changed the contested conditions at Condition 7.5.6(c)-(g) in Part 2 of the Construction Permit by stating that the emission factors, originally established in the PSD Permit, are emission limits. The assertion that the new language at Condition 5.13 of the CAAPP Permit is merely a "clarification" does not comport with Illinois EPA's own language that the "change" in the permit is to "now explicitly" indicate that the emission factors are emission limits.

22. In addition, some of the emission factors that Illinois EPA refers to as limits by way of Condition 5.13 of the CAAPP Permit were derived from AP-42, Compilation of Air Pollutant Emission Factors. In AP-42, USEPA clearly states that AP-42 emission factors are "generally assumed to be representative of long-term averages for all facilities in the source category."⁵ In AP-42, USEPA also states that

⁴ Condition 5.13 states that certain emission factors are emission limits. However, it establishes a procedure by which U.S. Steel must review and update emission factors that it is using, which indicates that the emission factors are factors and not emission limits, since a permittee is not allowed to revise its own limits.

⁵ Emission Factors & AP-42, Compilation of Air Pollutant Emission Factors, available at www.epa.gov/ttnchie1/ap42 (April 3, 2013).

“[e]mission factors in AP-42 are neither EPA-recommended emission limits . . . nor standards . . .”⁶ USEPA clarifies:

[u]se of emission factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA. Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor. As such, a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance.⁷

In short, USEPA clearly articulates that AP-42 emission factors are indeed emission estimates. This is consistent with how Illinois EPA determined the annual emission limits – by using the AP-42 emission factor as the average.

23. The use of emission factors as limits is generally rejected by USEPA. In an order responding to a petition to object to a Title V permit, USEPA plainly states:

[a]n AP-42 emission factor is a value that roughly correlates the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. The use of these emission factors may be appropriate in some permitting applications, such as establishing operating permit fees. However, EPA has stated that AP-42 factors do not yield accurate emissions estimates for individual sources. *See In the Matter of Cargill, Inc.*, Petition IV-2003-7 (Amended Order) at 7, n.3 (Oct. 19, 2004). Because emission factors essentially represent an average of a range of facilities and of emission rates, they are not necessarily indicative of the emissions from a given source at all times; with a few exceptions, use of these factors to develop source-specific permit limits or to determine compliance with permit requirements is generally not recommended.

Order Denying in Part and Granting in Part A Petition for Objection to Permit, *In the Matter of Chevron Products Company, Richmond, California Facility*, Petition No. IX-2004-08 at 23-24 (March 2005). In *Chevron*, USEPA also explains that a single emission factor that

⁶ Compilation of Air Pollutant emission Factors Volume I: Stationary Point and Area Sources, Fifth Edition at 2, USEPA (Jan. 1995). (Emphasis in the original.)

⁷ *Id.*

was developed to represent *long-term average emissions* is not necessarily predictive of determining compliance at any *specific* time. *Id.*

24. Some of the emission factors⁸ from the 1996 PSD Permit that are incorporated into the CAAPP Permit and Part 2 of the Construction Permit have low emission factor ratings.⁹ For example, the Hot Metal Desulfurization and Hot Metal Transfer emission factor for VOM at Condition 7.5.6(e) is derived from the AIRS compilation of emission factors, which are rated as “E” quality factors based on the AP-42 rating scale.¹⁰ Since no data were available at the time of the PSD permit application and issuance, the emission factor for VOM was based on an emission factor with a rating of “poor,” which means that the factor was based on limited data. It is unreasonable now, more than 15 years later, to claim that the use of an “E” rated emission factor in a permit application and referred to in the CAAPP permit and in Part 2 of the Construction Permit is intended to be a short term emission limit. Since no data were available at the time of

⁸ Some emission factors in the 1996 PSD Permit are derived from historical stack tests conducted many years ago, and accordingly, outdated stack testing data should not be considered emission limits because the emission factors established by the tests are averages. For example, in the case of the iron spout baghouse, the SO₂ emission factor (0.0073 lb/ton) at Condition 7.4.6(f) of the CAAPP Permit is based on an average of three one-hour test runs, at which time, several parameters were tested to develop the emission factor. The SO₂ emission factor is an average, where two of the test runs were above the 0.0073 lb/ton SO₂ factor, which was ultimately included in the PSD Permit. Illinois EPA used the SO₂ emission factor established during the stack testing to determine anticipated average emissions, which were then used as the basis for annual emission limits. Moreover, even in cases where stack test data are used to establish emission limits, it is usual and customary (even in 1996) to apply an operations contingency or “safety” factor to account for expected variability in operations and process parameters, such as temperature. The emission factors established by stack testing were intended to be only factors and not limits, as Illinois EPA has interpreted, because the factors are based on an average developed during multiple test runs.

⁹ Emission factor ratings in AP-42 provide indications of the robustness, or appropriateness, of emission factors *for estimating average emissions* for a source activity.

¹⁰ AP-42 rates emission factors using letters: A (Excellent), B (Above Average), C (Average), D (Below Average), and E (Poor).

permit application preparation and issuance, it was, at the time, reasonable to use the emission factor to estimate annual emissions.

25. Accordingly, Illinois EPA's inclusion of the emission factors at Condition 7.5.6(c)-(g) in Part 2 of the Construction Permit was arbitrary, capricious and not supported by the Act or Board regulations, as discussed above and detailed in the CAAPP Permit appeal.

IV. A COMPLIANCE SCHEDULE SHOULD BE INCLUDED IN PART 2 OF THE CONSTRUCTION PERMIT.

26. On November 30, 2012, Illinois EPA issued VN No. A-2012-00169, attached hereto as Exhibit C, to U.S. Steel alleging violations of the NOx and VOM annual limits for the BOF and associated electrostatic precipitator ("ESP") in Condition 7.5.6(c) of U.S. Steel's 2011 CAAPP Permit. Illinois EPA also alleged a violation of the NOx and VOM emission factors stating that the Facility "caused or allowed the emissions of NOx and VOM in excess of the emission limits of 0.0389 lb/ton and 0.006 lb/ton, respectively." *See* Exhibit C.

27. On January 30, 2012, U.S. Steel submitted to Illinois EPA a detailed compliance plan/schedule for future stack testing and permitting in order to establish appropriate NOx and VOM annual emission limits for the BOF and ESP. U.S. Steel requested that the compliance plan/schedule be incorporated into the CAAPP Permit. U.S. Steel's proposed compliance plan/schedule is attached hereto as Exhibit D.

28. U.S. Steel submitted comments (Exhibit E) during the public comment period on the Public Notice Draft of the CAAPP Permit. Although Illinois EPA had made the preliminary decision not to include U.S. Steel's proposed compliance schedule

in the planned revisions to the CAAPP Permit, U.S. Steel explained in its comments that the Act and the regulations promulgated thereunder require that a compliance schedule be included in the CAAPP Permit, since stack testing demonstrated that U.S. Steel cannot comply with the annual maximum emission limits at Condition 7.5.6(c). *See* Exhibit E for U.S. Steel's discussion detailing why a compliance schedule should be included in the CAAPP Permit.

29. Because Part 2 of the Construction Permit addresses the same contested conditions at Condition 7.5.6(c) and 7.5.13 that are the subject of the CAAPP Permit appeal, the compliance schedule requested by U.S. Steel for annual NOx and VOM emission limits from BOP Shop activities should also have been included in Part 2 of the Construction Permit.

30. In addition to the Act's requirements for compliance schedules, Section 504(a) of the CAA, 42 U.S.C. § 7661c(a), requires compliance schedules in CAAPP permits. Section 504(a) states:

Each permit issued under this subchapter shall include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring , and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.

42 U.S.C. § 7661c(a). (Emphasis added.)

31. Based on the above provisions, CAAPP permits, including Part 2 of the Construction Permit, are required to include compliance schedules for emission units that are not in compliance with applicable requirements of the permit at the time of issuance.

Illinois EPA stated that it was too soon to determine non-compliance based on the issuance of the VN to U.S. Steel because the enforcement process is only in the beginning stages. Illinois EPA also noted that other considerations and information needs to be taken into account prior to revising the CAAPP Permit to include a compliance schedule. However, U.S. Steel's January 30, 2013 letter requesting a compliance schedule clearly explained that data from the last two stack tests demonstrated "that the BOF ESP cannot maintain compliance with the current emission limits for NOx and VOM." *See Exhibit D.*

32. Thus, U.S. Steel concluded that, based on stack test data, that it cannot comply with certain permit requirements that were expected to be, and in fact were, included in the CAAPP Permit. Accordingly, in its February 14, 2013 comments on the draft CAAPP Permit, U.S. Steel requested that a compliance schedule be included in the CAAPP Permit and requested Illinois EPA reconsider its position on the issue. Furthermore, U.S. Steel requested that Illinois EPA include the requested compliance schedule at a new Condition 7.5.13 in the 2013 CAAPP Permit, as well as add a Note (*) after existing Condition 7.5.6(c) as follows:

* These limits have been addressed by the compliance schedule established for compliance with these factors and limits. (See Condition 7.5.13).

Exhibit E at 3.

33. Because of the integrated processing of the Construction Permit, Part 2 of the Construction Permit is viewed as authorized changes to a CAAPP permit, and thus, because a compliance schedule was not included at Condition 7.5.13 and the note was not

included at Condition 7.5.6(c) in Part 2 of the Construction Permit, U.S. Steel is contesting the NOx and VOM annual maximum emissions at Condition 7.5.6(c), since these conditions are subject to the aforementioned CAAPP Permit appeal and corresponding stay.

34. U. S. Steel is also contesting Condition 7.5.6(c) to the extent the emission factors provided therein are considered "emission factor limits" pursuant to Condition 5.13 of the CAAPP Permit, which like the emission factors in Condition 7.5.6(c) is subject to the CAAPP Permit appeal and the stay of contested conditions granted by the Board on May 2, 2013.

35. The corresponding annual emission limits for NOx and VOM for BOF Shop emissions at Condition 7.5.6(b) in Part 2 of the Construction Permit are based on the BOF ESP Stack maximum annual emissions at Condition 7.5.6(c) in Part 2 of the Construction Permit, and accordingly, the annual emission limits at Condition 7.5.6(b) in Part 2 of the Construction Permit are also being contested since U.S. Steel has concluded, based on stack testing, that it cannot comply with the annual NOx and VOM emission limits for the BOF Shop.

WHEREFORE, Petitioner, UNITED STATES STEEL CORPORATION petitions the Board for a hearing on the Illinois EPA's final action on the Construction Permit with respect to the permit conditions and issues referenced herein, and a determination that the Illinois EPA's action was arbitrary, capricious and not supported by the Act or Board regulations. In addition, as set forth in the accompanying Motion, U.S. Steel requests that the Board stay the contested conditions of the Construction Permit during the

pendency of the review process. U.S. Steel reserves the right to amend this Petition as necessary in order to raise newly discovered issues arising from the Construction Permit and/or to provide additional specificity regarding the conditions of the Construction Permit, if required by the Board.

Respectfully submitted,

UNITED STATES STEEL CORPORATION,
Petitioner,

Dated: May 6, 2013

By: /s/ Katherine D. Hodge
Katherine D. Hodge

Katherine D. Hodge
Monica T. Rios
HODGE DWYER & DRIVER
3150 Roland Avenue
Post Office Box 5776
Springfield, Illinois 62705-5776
(217) 523-4900

217/785-1705

CONSTRUCTION PERMIT
(SUBJECT TO INTEGRATED PROCESSING)

PERMITTEE

United States Steel Corporation - Granite City Works
Attn: Bryan Kresak, Environmental Director
1951 State Street
Granite City, Illinois 62040

Application No.: 11050006

I.D. No.: 119813AAI

Applicant's Designation:

Date Received: November 16, 2011

Subject: Emission Reduction Project

Date Issued: April 1, 2013

Location: 1951 State Street, Granite City, Madison County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an emission reduction project for charging and tapping of the two existing basic oxygen process furnaces (BOPFs), as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the findings and conditions in Part 1 of this Permit.

This Permit also authorizes the Clean Air Act Permit Program (CAAPP) permit for the source (Permit 96030056) to be revised by administrative amendment, in accordance with Section 39.5(13)(c)(v) of the Environmental Protection Act (Act). This is because this Permit was subject to "Integrated Processing," i.e., this Permit was subject to procedural requirements and includes compliance requirements that are substantially equivalent to those that apply to CAAPP permits. This was done because certain provisions in CAAPP Permit 96030056 will no longer be appropriate or necessary with this emission reduction project, when particulate emissions from tapping and charging of the BOPFs are controlled with a new baghouse control system. The specific revisions that may be made by administrative amendment to Permit 96030056 pursuant to this Permit are set forth in Part 2 of this Permit.

If you have any questions on this Permit, please contact Kevin Smith at 217/785-1705.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:KLS:psj

cc: FOS - Region 3, Illinois EPA
CAAPP Permit File - 96030056

PART 1: FINDINGS AND CONDITIONS FOR THE CONSTRUCTION PERMIT

FINDINGS

1. Introduction

- a. This permit authorizes an emission reduction project for particulate emissions from the two existing Basic Oxygen Process Furnaces at the source. The project involves installation of a new control system for emissions of particulate from charging and tapping of these furnaces. The existing electrostatic precipitator (ESP) would continue to be used to control particulate emissions from these furnaces from refining.

This project will include the following elements:

- Installation of a baghouse with a nominal capacity of 900,000 actual cubic feet per minute.
- Upgrade of the existing local capture hoods for charging and installation of new ductwork to connect to the new baghouse rather than to the existing ESP.
- Installation of local capture hoods for tapping and ductwork to connect to the new baghouse.
- Installation of dampers, actuators, automated operating system and other equipment associated with the new ductwork.
- Repairs and upgrades to the enclosures at each BOPF.

- b. For the purpose of this construction permit:

- i. The "BOPFs" are the two existing Basic Oxygen Process Furnaces or Basic Oxygen Furnaces (BOFs) at the Granite City Works.
- ii. The "BOPF baghouse" is the new baghouse for control of emissions from charging and tapping of the BOPFs.
- iii. The "BOPF baghouse system" is the new control system for control of emissions from charging and tapping of the BOPFs, including the capture hoods, ductwork and the BOPF baghouse.

2. Integrated Processing

- a. With this emission reduction project, when particulate emissions from tapping and charging of the BOPFs are controlled with the BOPF baghouse system, certain requirements in the CAAPP Permit for the source that currently address the BOPFs and the existing ESP control system would no longer be appropriate or necessary. This is because particulate emissions would also be controlled by the BOPF baghouse system. In particular, use of flame suppression to control emissions from tapping would no longer be practical because of the presence of induced draft from the local capture hoods. The BOPF baghouse system would also be designed with the capacity to control particulate emissions from tapping

of one BOPF and charging of the other BOPF at the same time so that certain portions of tapping and charging of the BOPFs and oxygen blowing of the BOPFs do not have to be staggered.

- b. To make these consequences of this project for the future operation of the BOPFs clear and certain at the time that this construction permit was issued, this permit was subject to Integrated Processing pursuant to Section 39.5(13)(c)(v) of the Act and 35 IAC 270.302(e). In particular, this permit was subject to procedural requirements that are substantially equivalent to those that apply to CAAPP permits, including a public comment period and review of a proposed permit by USEPA. This permit also includes compliance requirements that are substantially equivalent to those that apply to CAAPP permits, e.g., it provides for Periodic Monitoring for the BOPF baghouse system. The specific changes to the CAAPP permit for the source (Permit 96030056) that may be made by administrative amendment pursuant to this construction permit to address operation of the BOPFs with the BOPF baghouse are set forth in Part 2 of this permit.

3. Applicable Regulatory Requirements

- a. This permit does not affect applicable emission standards for the BOPFs, including associated control equipment, as set forth in the CAAPP permit for the source, Permit 96030056, including the following:
 - i. Applicable emission standards of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Manufacturing Facilities, 40 CFR 63 Subpart FFFFF, including standards for both captured and uncaptured emissions.
 - ii. Applicable state emission standards in 35 IAC 212.446 and related provisions pursuant to 35 IAC Part 201 Subpart I that address operation of the BOPFs during malfunction or breakdown.
- b. When the BOPF baghouse control system begins to operate and the existing ESP control system is only controlling primary particulate emissions of the BOPFs, the capture systems in the ESP control system would not be subject to operational requirements of the NESHAP, including operating parameter limits and associated operational monitoring. However, this construction permit would continue to impose such requirements on the capture systems in the ESP control system. (See Condition 1(c)(ii).)

4. Non-Applicability Provisions

- a. This permit is issued based on this project not constituting a major modification subject to Prevention of Significant Deterioration (PSD), 40 CFR 52.21, or Major Stationary Sources

Construction and Modification (MSSCAM), 35 IAC Part 203. This is because this project is an emission reduction project that will reduce particulate emissions and will not act to increase production or emissions of any pollutants from the BOPFs.

- b. This permit is issued based on this project, as described in the application, not constituting a modification of the BOPFs under the federal New Source Performance Standards (NSPS), 40 CFR 60 Subpart Na, as the project has the primary function of reducing emissions and therefore is not a modification pursuant to 40 CFR 60.14(e) (5).

CONDITIONS

1. Operational Requirements

- a. The design capacity of the BOPF baghouse shall be at least 900,000 acfm, so as to be able to simultaneously control tapping of one BOPF and charging of the other and to control the simultaneous tapping of both BOPFs.
- b. The Permittee shall prepare and submit to the Illinois EPA its initial revisions to the plans for the BOPFs required by the NESHAP, 40 CFR 63 Subpart FFFFF (i.e., the operation and maintenance plan required by 40 CFR 63.7800(b) and the startup, shutdown and malfunction plan required by 40 CFR 63.7810(c)) to address the BOPF baghouse system at least 30 days in advance of initial operation of the BOPFs with this system.
- c. When the BOPF baghouse control system begins to operate:
 - i. The Permittee shall not conduct refining simultaneously in both BOPFs unless this mode of operation is authorized by an appropriate construction permit.
 - ii. The Permittee shall continue to operate the ESP capture systems in accordance with applicable operational requirements of the NESHAP for capture systems for secondary emissions from BOPFs (e.g. 40 CFR 63.7800(b) (1) and (3)), even though the ESP only controls primary emissions from the BOPFs.
- d. After the shakedown of the BOPF baghouse system is complete and in no case later than six months after initial operation of the BOPFs with the BOPF baghouse system, the existing ESP shall only be used for control of emissions from charging and tapping of the BOPFs during an extended outage of the BOPF baghouse.

2. Emission Limit

- a. Following completion of the shakedown period for the BOPF baghouse system, the emissions of particulate matter (PM) from the BOPF baghouse, as would be measured by USEPA Method 5, 5D or

17, shall not exceed 0.005 grains per dry standard cubic foot (gr/dcsf).

3-1. Emission Testing Requirements

a. The Permittee shall have emissions testing conducted for the BOPF baghouse and the existing ESP by a qualified testing service as follows:

i. A performance test for PM emissions shall be conducted within 180 days of initial operation of the BOPFs with the BOPF baghouse system, unless this is prevented by *force majeure* event(s), in which case, testing shall be conducted as soon as practicable after the force majeure event occurs.* This performance test shall be conducted in accordance with 40 CFR 63.7824(c) to verify compliance with applicable emission limits for PM set by the NESHAP and this permit and to establish new operating limits for the capture systems for the BOPFs pursuant to the NESHAP and this permit. For this purpose, performance testing shall be conducted for operation of the BOPFs with the BOPF baghouse and ESP systems.

* If testing is or will be delayed because of event(s) that the Permittee considers to constitute force majeure, the Permittee shall notify the Illinois EPA, as set forth by 40 CFR 63.7(a)(4).

ii. A. A further test for PM emissions and tests for emissions of filterable PM₁₀ and PM_{2.5}, condensable particulate matter, lead, NO_x, CO and VOM shall be conducted within one year of initial operation of both BOPFs with charging and tapping controlled by the BOPF baghouse system. The measurements for emissions of PM and other pollutants required by these tests and the tests required by Condition 3-1(a)(iii) may be combined with other measurements required for the BOPFs if measurements are conducted within the time periods specified by these conditions. In conjunction with this emission testing, the Permittee shall conduct or have conducted measurements as necessary to evaluate the actual operation and capture efficiency achieved by the hoods for charging and tapping as compared to their design. These tests and measurements shall be the basis of the Project Report required by Condition 6(d) for the BOPF baghouse system.

B. Notwithstanding the above, testing for emissions of NO_x, CO or VOM from the BOPF baghouse need not be conducted if preliminary measurements for the pollutant indicate emissions are below the detection limit of the applicable test method.

- iii. A follow-up test for emissions of PM, filterable PM₁₀ and PM_{2.5}, condensable particulate matter and lead shall be conducted between 24 and 36 months of the completion of the emission testing required by Condition 3-1(a)(ii).
- b.
 - i. Testing for PM emissions shall be conducted using applicable methods and procedures specified by the NESHAP.
 - ii. Applicable USEPA test methods and procedures shall be used for testing of emissions of pollutants other than PM, including the following methods for measurement of the emissions of different pollutants, unless other methods are approved by the Illinois EPA as part of the approval of a test plan. Refer to 40 CFR 60, Appendix A, and 40 CFR 51, Appendix M, for USEPA test methods.

Filterable PM ₁₀ and PM _{2.5}	Method 201A
Condensable Particulate Matter	Method 202
Lead	Method 29
Nitrogen Oxides	Method 7E
Carbon Monoxide	Method 10
Volatile Organic Material	Method 25A

- iii. During all test runs for emissions of PM and filterable PM₁₀ and PM_{2.5} required by Condition 3-1(a), observations of the opacity of the exhaust from the roof monitor of the BOPF shop shall also be conducted in accordance with applicable methods and procedures of the NESHAP, including 40 CFR 63.7823(d), and information recorded on the timing of charging, refining, tapping and deslagging of each BOPF, so opacity data may be correlated with the operation of the BOPFs.
- c. The Permittee shall submit a written plan to the Illinois EPA for review and comment for this testing. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information at a minimum:
 - i. A description of the planned emission test.
 - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - iii. The specific operating conditions under which testing will be performed, including a discussion of why these conditions will appropriately address operation of the BOPFs and associated control systems and the levels of operating parameters of the control systems at or within which compliance is intended to be shown.
 - iv. The specific determination of emissions intended to be made, including sampling and monitoring locations.

- v. The test methods that will be used, with the specific analysis method.
 - vi. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
 - vii. A statement that the testing will be performed by a qualified independent testing service.
 - viii. If preliminary measurements will be made for emissions of NO_x, CO, or VOM from the BOPF baghouse, to determine whether emissions are below the detection limit of the applicable test method, a description of the proposed approach to such measurements.
- d.
 - i. Prior to carrying out each set of emission tests, the Permittee shall notify the Illinois EPA a minimum of 30 days prior to the scheduled date of these tests with the exact date and time that testing would begin, to enable the Illinois EPA to witness these tests.
 - ii. If the scheduled date for testing is changed, the Permittee shall inform the Illinois EPA within 5 working days of the new date and time for testing.
 - iii. Notwithstanding the above, the Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.
 - e. The Permittee shall submit three copies of the Final Report(s) for emissions tests to the Illinois EPA no later than 60 days after completion of sampling. The Final Report shall include at a minimum:
 - i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.
 - ii. A summary of the measured emissions in pounds per hour, lbs/ton steel and, for particulate matter, in gr/dscf.
 - iii. Detailed data for operating parameters of the control system during testing, including data recorded by the operational monitoring systems and, as applicable, proposed operating parameter limits based on the emission testing.
 - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
 - vi. A comparison of measured data to applicable emission standards and limits and a statement whether compliance was demonstrated.
 - vii. The data for opacity of the exhaust through the roof monitor of the BOPF shop during testing and the timing of charging, refining, tapping and deslagging of the BOPFs, as determined and recorded pursuant to Condition 3-1(b)(iii), accompanied by copies of the certification(s) pursuant to USEPA Method 9 of the individual(s) who made the observations of opacity.
 - viii. If emission testing for NO_x, CO or VOM from the BOPF baghouse was not conducted, as provided for by Condition 3-1(a)(ii)(B), documentation for the preliminary measurements that show emissions are below the detection limit of the applicable test method.
- f. The Permittee shall retain copies of these reports for these emission tests for at least five years beyond the date that an emission test report is superseded by subsequent testing for all pollutants.

3-2. Requirements for Opacity Observations from the BOPF Shop

- a. The Permittee shall conduct opacity observations for the BOPF shop as follows, while the capture systems for the BOPFs are operated, as practicable, at minimum values of the operating parameters at which the Permittee normally expects to operate these systems.
 - i. Observations shall be promptly conducted following initial operation of the BOPFs with the BOPF baghouse system.
 - ii. Thereafter, until the performance testing required by Condition 3-1(a)(i) is conducted, these observations shall be conducted at least every 15 operating days of the BOPFs.
- b. These observations shall be conducted in accordance with 40 CFR 63.6(h)(5) and 63.7823(d). As these observations must extend over at least three steel production cycles pursuant to 40 CFR 63.7823(d)(ii), opacity observations that the Permittee is otherwise required to conduct for the BOPF Shop may provide a portion of these observations.
- c. The Permittee shall submit individual reports to the Illinois EPA for these opacity observations, which reports shall be submitted within 10 days of the date of observations. In addition to relevant information for reports for opacity observations, these reports shall include the actual values of the operating

parameters of the capture systems for the BOPF that were monitored during each steel production cycle for which observations were conducted.

3-3. Additional Testing Requirements

- a. In conjunction with the emission testing required by Condition 3-1(a)(ii) or (iii), the Permittee shall conduct or have conducted measurements as necessary for a determination of the PM control efficiency of the BOPF baghouse during normal operation of the BOPFs, including associated control systems, which efficiency may be determined either "directly" (e.g., by measurements of the PM loading at the inlet of the BOPF baghouse for comparison to the measured PM emission rate) or "indirectly" (e.g., by recordkeeping for the amount of material collected by this baghouse over a week or month, to determine an average collection rate per hour or per steel production cycle, for comparison to the measured emission rate).
- b. These measurements and the determination of the PM control efficiency of the BOPF baghouse, in percent, shall be included in the relevant report for emission testing pursuant to Condition 3-1(e).

4. Monitoring and Instrumentation Requirements

- a. The Permittee shall fulfill applicable monitoring requirements of the NESHAP, 40 CFR 63 Subpart FFFFFF, for the BOPF baghouse system, including:
 - i. Monitoring, as required by 40 CFR 63.7800(b)(3) and 63.7830(a), for selected operating parameters of each capture system that are appropriate for its design and representative and reliable indicators of the performance of the capture system. At a minimum, the selected parameters must include parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. The selection of operating parameters must be supported by documentation in the revised operation and maintenance plan for the BOPFs.
 - ii. Operating a bag leak detection system on the BOPF baghouse, as required by 40 CFR 63.7830(b)(1) and 63.7833(c)(1) and (4), with timely initiation of appropriate corrective action(s) in the event that the bag leak detection system alarm is triggered and fulfillment of associated recordkeeping and reporting requirements.
 - iii. The Permittee shall make its initial revisions, as needed to address the BOPF baghouse system, to the site-specific monitoring plan for the BOPFs required by 40 CFR

63.7831(a), at least 30 days in advance of initial operation of the BOPFs with the BOPF baghouse system.

- b. The Permittee shall monitor the following operating parameters for the BOPF baghouse system if not otherwise monitored pursuant to the NESHAP. For this purpose, the Permittee may either directly monitor these parameters or indirectly derive and automatically record data for these parameters from other operating parameters that are continuously monitored.
 - i. The actual volumetric flow rate, in cubic feet per minute (acfm), through each separately ducted hood.
 - ii. The actual volumetric flow rate (acfm) at the inlet to the baghouse.
 - c. When the BOPF baghouse control system begins to operate and the ESP is only controlling primary emissions, the Permittee shall continue to conduct operational monitoring for the capture systems associated with the ESP in accordance with relevant monitoring requirements of the NESHAP (e.g., 40 CFR 63.7830(a) and 63.7831(e)), even though the ESP only controls primary emissions of the BOPFs.
5. Recordkeeping Requirements
- a. The Permittee shall maintain a file or other records that contain the following information for the BOPF baghouse system:
 - i. Design data for the capture hoods for charging and tapping, including the analysis for the levels of capture achieved by the hoods for emissions of particulate, i.e., percentages of total emissions from charging and tapping that are collected and directed to the BOPF baghouse.
 - ii. The manufacturer's specifications for the capacity (acfm and scfm) and particulate emissions (gr/dscf) of the BOPF baghouse and the manufacturer's recommended operating and maintenance procedures for this baghouse.
 - b. After charging and tapping of both BOPFs first begin to be controlled with the BOPF baghouse system, the Permittee shall keep records of the following information for the BOPFs. The preparation of these records by the Permittee may be automated or these records may be prepared manually or by a combination of manual and automated methods. These records may be combined with other records that are kept by the Permittee for the BOPFs.
 - i. Records for the BOPFs for the total number of steel production cycles per day (24-hours).
 - ii. Records for the following information, as calculated from data monitored pursuant to Condition 4(b):

- A. The average flow rate through each separately ducted hood for each BOPF for each steel production cycle (acfm) .
 - B. The average flow rate at the inlet to the BOPF baghouse per steel production cycle (acfm/cycle), daily (24-hour) average.
 - C. The average flow rate at the inlet to the ESP per steel production cycle (acfm/cycle), daily (24-hour) average.
- c. After tapping and charging of both BOPFs first begin to be controlled with the BOPF baghouse system, the Permittee shall keep records for periods when charging or tapping of a BOPF is not controlled by this system, including a description of the event, the probable cause(s) of the event, the remedial action(s) taken and any measure(s) taken to prevent similar events in the future.
 - d. The Permittee shall retain records required by this permit and make them available to the Illinois EPA and USEPA in accordance with Conditions 5.9.6(a) and (b) of the CAAPP permit for the source, Permit 96030056.
6. Reporting Requirements
- a. The Permittee shall notify the Illinois EPA of the following events with respect to the design, construction and shakedown of the BOPF baghouse system:
 - i. Finalization of the design for the BOPF baghouse, within 15 days of the date that this occurs, which notification shall include the following information: total filter area, number of compartments, number of bags and dimensions and the selected filter material with performance specifications.
 - ii. The planned date for initial operation of the BOPF(s) with the BOPF baghouse system, at least 5 days in advance, which notification shall also include the date on which it is expected that the opacity observations required by Condition 3-2(a)(i) will be conducted. If operation with this system will be phased, i.e., the emissions from charging and tapping of both BOPFs will not initially all be controlled by this system, this notification shall include the planned schedule for phase-in of control of emissions by this system.
 - iii. The date that tapping and charging of both BOPFs are initially controlled with the BOPF baghouse system, no later than 30 days after this date.

- iv. The date that the shakedown of the BOPF baghouse system is completed, no later than 30 days after this date.

- b. The Permittee shall notify the Illinois EPA of periods, if any, during the construction of the BOPF baghouse system that would be accompanied by extended interruptions in the operation of the BOPFs (i.e., interruptions whose expected duration would be longer than 72 hours). For this purpose, the Permittee may provide a separate notice in advance of each such period, with the notice submitted at least 5 days in advance, if possible, or otherwise as soon as practical. Alternatively, the Permittee may provide copies of the schedules for the construction of the BOPF baghouse system identifying such periods, with a schedule initially submitted within 10 days of the initial development of the schedule and revised schedules submitted within 15 days of substantial revisions to the schedule. These notifications need only be submitted to the Illinois EPA's Regional Office in Collinsville and may be submitted either by facsimile or by electronic mail.

- c. After the shakedown of the BOPF baghouse system is complete, the Permittee shall notify the Illinois EPA if the ESP will be used for control of emissions from charging and tapping of the BOPFs, with description of the planned use of the ESP and explanation.

- d. Within 18 months of the date that tapping and charging of both BOPFs are initially controlled with the BOPF baghouse system, the Permittee shall submit a Project Report to the Illinois EPA that evaluates the emissions of particulate (as PM₁₀ and PM_{2.5}) and lead from the BOPFs with the BOPF baghouse system. This one-time report shall include the following:
 - i. An assessment of the actual levels of capture (percent) that are achieved for emissions from charging and tapping, during normal operation of the BOPFs and control systems.
 - ii. An assessment of overall emissions of particulate matter and lead from the BOPFs on a short-term basis (in lbs/hour and lbs/tonof steel), with typical and maximum emission rates, for normal operation.
 - iii. A review of the probable effect of upsets in the operation of the BOPF baghouse system on the short-term emissions of the BOPFs, considering upsets that have been experienced.
 - iv. An assessment of the distribution of emissions of particulate and lead from the BOPFs between the ESP, BOPF baghouse and roof monitor (uncaptured emissions) on a short-term basis, with the typical distribution of emissions, the distribution of emissions with maximum emissions at the roof monitor, and the distribution of emissions with maximum emissions at the ESP, all for normal operation.

- vi. An assessment of the actual reductions in annual emissions of particulate matter (tons/year) from the BOPFs that should be achieved with the BOPF baghouse system.
- vii. An assessment of the typical range of opacity from the roof monitor during tapping of a single BOPF, charging of a single BOPF, overlapping tapping and charging of the BOPFs, and periods of operation other than charging and tapping.
- viii. Appropriate data and analysis to support the above assessments.

PART 2: CHANGES THAT ARE "PRE-AUTHORIZED" TO THE CAAPP PERMIT

Provisions of CAAPP Permit 96030056 (abridged)
Marked to Show the Changes That May Be Made to the Provisions by
Administrative Amendment Pursuant to Integrated Processing

These changes may only be made after the Permittee has confirmed its intention to proceed with this emission reduction project as described in the application for this construction permit and as addressed by Part 1 of this permit.

Changes to the Table of Contents

TABLE OF CONTENTS

1.0	INTRODUCTION
1.1	Source Identification
1.2	Owner/Parent Company
1.3	Operator
1.4	Source Description
1.5	Title I Conditions
2.0	LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED
3.0	CONDITIONS FOR INSIGNIFICANT ACTIVITIES
3.1	Identification of Insignificant Activities
3.2	Compliance with Applicable Requirements
3.3	Addition of Insignificant Activities
4.0	SIGNIFICANT EMISSION UNITS AT THIS SOURCE
5.0	OVERALL SOURCE CONDITIONS
5.1	Applicability of Clean Air Act Permit Program (CAAPP)
5.2	Area Designation
5.3	Source-Wide Applicable Provisions and Regulations
5.4	Source-Wide Non-Applicability of Regulations of Concern
5.5	Source-Wide Control Requirements and Work Practices
5.6	Source-Wide Production and Emission Limitations
5.7	Source-Wide Testing Requirements
5.8	Source-Wide Monitoring Requirements
5.9	Source-Wide Recordkeeping Requirements
5.10	Source-Wide Reporting Requirements
5.11	Source-Wide Operational Flexibility/Anticipated Operating Scenarios
5.12	Source-Wide Compliance Procedures
6.0	CONDITIONS FOR EMISSIONS CONTROL PROGRAMS
7.0	UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS
7.1	Material Handling and Processing Operations
7.2	Coke Production
7.3	Coke By-Product Recovery Plant and COG Desulfurization System
7.4	Blast Furnaces
7.5	Basic Oxygen Processes <u>(See note at the end of the Table of Contents)</u>
7.6	Continuous Casting
7.7	Hot Strip Mill Reheat Furnaces
7.8	Finishing Operations

- 7.9 Wastewater Treatment Plant
- 7.10 Boilers
- 7.11 Internal Combustion Engine
- 7.12 Gasoline Storage and Dispensing
- 7.13 Fugitive Dust

8.0 **GENERAL PERMIT CONDITIONS**

- 8.1 Permit Shield
- 8.2 Applicability of Title IV Requirements
- 8.3 Emissions Trading Programs
- 8.4 Operational Flexibility/Anticipated Operating Scenarios
- 8.5 Testing Procedures
- 8.6 Reporting Requirements
- 8.7 Title I Conditions

9.0 **STANDARD PERMIT CONDITIONS**

- 9.1 Effect of Permit
- 9.2 General Obligations of Permittee
- 9.3 Obligation to Allow Illinois EPA Surveillance
- 9.4 Obligation to Comply with Other Requirements
- 9.5 Liability
- 9.6 Recordkeeping
- 9.7 Annual Emissions Report
- 9.8 Requirements for Compliance Certification
- 9.9 Certification
- 9.10 Defense to Enforcement Actions
- 9.11 Permanent Shutdown
- 9.12 Reopening and Reissuing Permit for Cause
- 9.13 Severability Clause
- 9.14 Permit Expiration and Renewal
- 9.15 General Authority for the Terms and Conditions of this Permit

10.0 ATTACHMENTS

- 1 Example Certification by a Responsible Official
- 2 Emissions of Particulate Matter from Process Emission Units

Note: This permit has two version of Section 7.5, which contains the unit-specific conditions for the Basic Oxygen Processes. The first version reflects the "current version" of Section 7.5, as was also present in the previous CAAPP permit for the source. This version of Section 7.5 only applies until a new baghouse control system that is part of an emission reduction project for the Basic Oxygen Process Furnaces (BOPFs) begins operation to control particulate emissions of these furnaces. The second version of Section 7.5 addresses the future operation of the BOPFs with the new baghouse control system and will become applicable when the new baghouse system begins operation to control emissions of these furnaces, superseding the first version of Section 7.5.

Changes to Current Section 7.5 of the CAAPP Permit (abridged)

7.5 Basic Oxygen Processes - Version 1

Note: This is the first version of Section 7.5 in this permit. This version only applies until a new baghouse control system that is part of an emission reduction project for the Basic Oxygen Process Furnaces (BOPFs) begins operation to control particulate emissions of these furnaces. At such time, the second version of Section 7.5 will become applicable, superseding this version of Section 7.5. (See Condition 7.5.15.)

(No changes to Conditions 7.5.1 through 7.5.14)

7.5.15 Transition

This version of Section 7.5 only applies until a new baghouse control system that is part of an emission reduction project for the BOP furnaces, which is addressed by Construction Permit 11050006, begins operation to control particulate emissions of these furnaces. At such time, the second version of Section 7.5 will become applicable, superseding this version of Section 7.5.

Changes to Add a New Version of Section 7.5 to the CAAPP Permit

7.5 Basic Oxygen Processes - Version 2

Note: This is the second version of Section 7.5 in this permit. This version of Section 7.5 will become applicable when the new baghouse control system for the BOPFs begins operation to control emissions of these furnaces. At such time, this version of Section 7.5 will supersede the first version of Section 7.5. (See Condition 7.5.15.)

7.5.1 Description

Reladling and Desulfurization Stations:

Molten iron is received by rail from the blast furnaces in torpedo cars. The iron is then transferred to the charging ladles at the reladling station. In the desulfurization stations a combination of lime and magnesium is injected into the molten iron to remove the sulfur. The sulfur reacts with the lime and magnesium and forms a layer of slag on the surface of the iron. A collection system with a positive pressure baghouse is used to control emissions of particulate matter from these stations.

Slag Skimming:

After the molten iron is desulfurized, the ladle it is moved to this station where a mechanical arm is used to scrape slag from the surface of the iron into slag pots. A collection system with a baghouse is used to control emissions from this process.

Basic Oxygen Process Furnaces (BOPFs or BOFs):

The steel production cycle or "heat" in a BOPF begins with the charging of scrap metal into the BOPF vessel. Molten iron is then charged into the vessel. During periods of reduced molten iron availability, the scrap metal may be preheated with a natural gas fired lance to increase its temperature and reduce the amount of molten iron that is needed. Flux materials are also added to the vessel. After the BOPF is charged, an oxygen lance is inserted through the roof of the BOPF to begin the refining phase with the "oxygen blow". In the BOPF, the injected oxygen reacts exothermically with the carbon in the iron generating heat, melting the scrap and reducing the amount of carbon in the bath, thus converting the iron to steel. When refining is completed, the BOPF is tapped, by pouring the molten steel from the vessel into a transfer ladle. After tapping, the slag is emptied from the vessel into a slag ladle, preparing the BOPF for the next heat. The steel production cycle is then repeated.

Emissions of particulate from the BOPFs from charging and tapping (also referred to as "secondary emissions") are captured by local hoods and ducted to a baghouse (the BOPF baghouse

system). Emissions of particulate from refining are captured by the roofs over the BOPFs and ducted to an electrostatic precipitator (the ESP system). The openings in the roofs of the BOPFs for the oxygen lances are also fitted with steam rings. The steam rings inject steam into the area between the oxygen lance and the "lance hole," acting to suppress particulate emissions through this area during oxygen blowing.

Ladle Preheating and Drying:

In this unit, lances combust either natural gas or coke oven gas to produce the heat needed to dry and preheat iron and steel handling ladles. The refractory linings of freshly re-bricked or repaired ladles must be completely dried and preheated before use. The drying process is necessary because any moisture left in the refractory would immediately vaporize and expand when the ladles are filled with molten metal. This sudden expansion could cause the refractory lining to split which would allow the molten metal to come into contact with, and damage the shell of the ladle. Emissions from this unit consist of particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide and organic materials from fuel combustion.

Ladle Metallurgy Furnaces (LMF) and Argon Stirring Stations:

At the LMF station and the argon stirring stations, final adjustments are made to the composition of a ladle of steel and the steel is held pending casting. At the LMF station, electricity can also be used to heat a ladle of steel if it has cooled below the range at which steel can be cast.

If the steel does not need to be reheated and at most minor adjustments are needed to its composition, the ladle of steel goes to one of the two argon stirring stations. At these stations, stirring lances are inserted into the steel and argon is pumped into the steel to maintain uniform composition and temperature. A baghouse is also used to control emissions from the operations.

Note: This narrative description is for informational purposes only and is not enforceable.

7.5.2 List of Basic Oxygen Processes and Air Pollution Control Equipment

<u>Location</u>	<u>Descriptions</u>	<u>Date Constructed</u>	<u>Emission Control Equipment</u>
<u>Basic Oxygen Process Furnace (BOPF) Shop</u>	<u>Hot Metal Transfer Station</u>	<u>Prior to 05/1983</u>	<u>Reladle/ Desulfurization Baghouse</u>
	<u>Two Hot Metal Desulfurization Stations</u>		
	<u>Slag Skimming Station</u>	<u>1985</u>	<u>Skimmer Baghouse</u>

<u>Location</u>	<u>Descriptions</u>	<u>Date Constructed</u>	<u>Emission Control Equipment</u>
<u>Basic Oxygen Process Furnace (BOPF) Shop</u>	<u>Hot Metal Transfer Station</u>	<u>Prior to 05/1983</u>	<u>Reladle/Desulfurization Baghouse</u>
	<u>Two Hot Metal Desulfurization Stations</u>		
	<u>Slag Skimming Station</u>	<u>1985</u>	<u>Skimmer Baghouse</u>
	<u>Basic Oxygen Process Furnaces (BOPFs or BOFs) #1 and #2, with Steam Rings</u>	<u>Prior to 08/1972</u>	<u>Baghouse (Charging and Tapping) and Electrostatic Precipitator (Refining)</u>
	<u>Ladle Drying/Preheating (coke oven gas and natural gas modes)</u>	<u>Prior to 08/1972</u>	<u>None</u>
	<u>Ladle Metallurgy Furnace (LMF) Station</u>	<u>Prior to 1986</u>	<u>Baghouse #2</u>
	<u>Argon Stirring Stations</u>	<u>Around 1988</u>	

7.5.3-1 Applicable State Provisions

a. Pursuant to 35 IAC 212.446, emissions of particulate matter from basic oxygen processes shall be controlled as follows:

i. Charging, Refining and Tapping (BOF Operations). Particulate matter emissions from all basic oxygen furnaces (BOFs) shall be collected and ducted to pollution control equipment. Emissions from basic oxygen furnace operations during the entire cycle (operations from the beginning of the charging process through the end of the tapping process) shall not exceed the allowable emission rate specified by 35 IAC 212.322. For purposes of computing the process weight rate, nongaseous material charged to the furnace and process oxygen shall be included. No material shall be included more than once [35 IAC 212.446(a)].

ii. Hot Metal Transfer, Hot Metal Desulfurization and Ladle Lancing. Particulate matter emissions from hot metal transfers to a mixer or ladle, hot metal desulfurization operations and ladle lancing shall be collected and ducted to pollution control equipment, and emissions from the pollution control equipment shall not exceed 69 mg/dscm (0.03 gr/dscf) [35 IAC 212.446(b)(1)].

iii. For openings in the building housing the BOFs, no person shall cause or allow emissions to exceed an opacity of 20 percent, as determined by averaging any

12 consecutive observations taken at 15 second intervals [35 IAC 212.446(c)].

- b. Pursuant to 35 IAC 212.458, no person shall cause or allow emissions of PM₁₀, other than that of fugitive particulate matter, into the atmosphere to exceed the following limits during any one hour period:
 - i. 32.25 ng/J (0.075 lbs/mmBtu) of heat input from the burning of coke oven gas (at ladle dryers/preheaters) [35 IAC 212.458(b) (9)].
 - ii. 27.24 kg/hr (60 lbs/hr) and 0.1125 kg/Mg (0.225 lbs/T) of total steel in process whichever limit is more stringent for the total of all basic oxygen furnace operations (charging, refining and tapping, as described in 35 IAC 212.446(a)) and measured at the BOF stack [35 IAC 212.458(b) (23)].
 - iii. 22.9 mg/scm (0.01 gr/scf) from any process emissions unit, except as otherwise provided in 35 IAC 212.458 or in 35 IAC 212.443 and 212.446 [35 IAC 212.458(b) (7)].
- c. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.
- d. The basic oxygen processes are subject to 35 IAC 214.301, which provides that no person shall cause or allow the emission of SO₂ into the atmosphere from any process emission source to exceed 2000 ppm.

7.5.3-2 Applicable NESHAP Provisions

- a. i. The Basic Oxygen Processes are subject to 40 CFR Part 63, Subpart FFFFF, the NESHAP for Integrated Iron and Steel Manufacturing Facilities. Applicable provisions of this NESHAP are addressed below and in other conditions of this section of the permit (Section 7.5).
- ii. The Permittee shall operate and maintain the BOPFs and associated capture and control systems in accordance with applicable requirements of the NESHAP, 40 CFR 63 Subpart FFFFF, including requirements for operational monitoring, performance testing for opacity and emissions of particulate matter,* operation of capture and control systems within established limits for operating parameters,

implementation of specified operation and maintenance practices, recordkeeping and reporting. [T1]

* As related to testing of emissions, if the Permittee is not willing to consider all particulate matter measured by testing to be PM-10, as provided for by 35 IAC 212.108(a)(3), performance tests for emissions of particulate matter shall also include measurements for emissions of PM-10 in accordance with 35 IAC 212.108(a)(1) or (2).

Note: This condition, which was originally established in Construction Permit 95010001, as revised on December 17, 2012, requires the Permittee to comply with the operating and maintenance requirements of 40 CFR 63 Subpart FFFFF as the means to verify ongoing compliance with the requirements of Conditions 7.5.3-1(a)(iii) and (b)(ii) and to address implementation of good air pollution control practice for the BOPFs, including associated emission control systems. The requirements of the NESHAP are addressed below and in other conditions in this section of the permit.

b. Pursuant to 40 CFR 63.7790(a) and Table 1 to 40 CFR Part 63 Subpart FFFFF, the emissions from the Basic Oxygen Processes shall not exceed the following limits, which are applicable to operations at an existing basic oxygen process furnace (BOPF) shop:

i. The Permittee must not cause to be discharged to the atmosphere any gases that exit from a primary emission control system for a BOPF with an open hood system that contain, on a flow-weighted basis, particulate matter in excess of 0.02 gr/dscf during the steel production cycle. [NESHAP, Table 1, Paragraph 9(b)]

ii. The Permittee must not cause to be discharged to the atmosphere any gases that exit from a control device used solely for collection of secondary emissions from a BOPF that contain particulate matter in excess of 0.01 gr/dscf during the steel production cycle. [NESHAP, Table 1, Paragraph 9(c)]

iii. For each hot metal transfer, slag skimming, and hot metal desulfurization operation, the Permittee must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf. [NESHAP, Table 1, Paragraph 10]

- iv. For each ladle metallurgy furnace operation, the Permittee must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf. [NESHAP, Table 1, Paragraph 11]
- iv. For each roof monitor on the BOPF Shop, the Permittee must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the BOPF shop or any other building housing the BOPF shop operations that exhibit opacity greater than 20 percent (3-minute average). [NESHAP, Table 1, Paragraph 12]
- c. Pursuant to 40 CFR 63.7790(b)(3), for each ESP applied to control emissions from a BOPF, the Permittee must maintain the hourly average opacity of emissions exiting the control device at or below 10 percent.

7.5.4 Non-Applicability of Regulations of Concern

- a. Pursuant to 35 IAC 212.324(a)(3) and 212.316(f), the emission limitations of 35 IAC 212.324 and 212.316 are not applicable to the basic oxygen processes because these processes are subject to specific emission standards and limitations contained in 35 IAC Part 212 Subpart R, as addressed in Conditions 7.5.3-1(a) and (b).
- b. Except where noted, 35 IAC 212.321 and 35 IAC 212.322 shall not apply to the steel manufacturing processes subject to 35 IAC 212.442 through 35 IAC 212.452 [35 IAC 212.441].
- c. This permit is issued based on the basic oxygen processes not being subject to the applicable requirements of 35 IAC 219.301 because these processes do not emit photochemically reactive organic material as defined in 35 IAC 211.4690.
- d. The basic oxygen processes are not subject to 35 IAC 216.121 because they are not fuel combustion emission units as defined in 35 IAC 211.2470.

7.5.5-1 NESHAP Requirements for Operation and Maintenance (40 CFR 63.7800 and 63.7833)

- a. Pursuant to 40 CFR 63.7800(a), as required by 40 CFR 63.6(e)(1)(i), the Permittee must always operate and maintain each individual BOPF and each BOPF shop ancillary operation, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR 63 Subpart FFFFF.

b. Pursuant to 40 CFR 63.7800(b), the Permittee shall prepare and operate at all times according to a written operation and maintenance plan for each capture system for secondary emissions from the BOPF and the ESP for the BOPF (which are subject to operating limits pursuant to 40 CFR 63.7790(b)) and the BOPF baghouse and other baghouses for BOF shop ancillary operations (which are required to have bag leak detection systems). Each plan shall address the following elements:

i. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection. [40 CFR 63.7800(b) (1)]

ii. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. [40 CFR 63.7800(b) (2)]

iii. Operating limits for each capture system applied to secondary emissions from the BOPF, which operating limits must be established according to the following requirements: [40 CFR 63.7800(b) (3)]

A. Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, the Permittee must use appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.

- B. For each operating limit parameter selected above, designate the value or setting for the parameter at which the capture system operates during the process operation. As more than one process may operate simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that the BOPF may operate.
 - C. Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.
- iv. Corrective action procedures for baghouses equipped with bag leak detection systems. In the event a bag leak detection system alarm is triggered, the Permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to the following: [40 CFR 63.7800(b)(4)]
- A. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
 - B. Sealing off defective bags or filter media.
 - C. Replacing defective bags or filter media or otherwise repairing the control device.
 - D. Sealing off a defective baghouse compartment.
 - E. Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.

F. Shutting down the process producing the particulate emissions.

v. Corrective action procedures for the ESP, as it is equipped with a COMS. In the event the ESP exceeds the opacity operating limit in 40 CFR 63.7790(b)(3), the Permittee shall take corrective actions consistent with the site-specific monitoring plan in accordance with 40 CFR 63.7831(a)(8). [40 CFR 63.7800(b)(6)]

7.5.5-2 Work Practices Provisions for Startup, Shutdown and Malfunction Plans and Associated Procedures

a. NESHAP Provisions

i. Pursuant to 40 CFR 63.7810, the Permittee must be in compliance with the emission limitations and operation and maintenance requirements in 40 CFR 63 Subpart FFFFFF at all times, except during periods of startup, shutdown and malfunction as defined in 40 CFR 63.2

ii. Pursuant to 40 CFR 63.7810(c), the Permittee shall develop a written startup, shutdown, and malfunction plan for the BOPFs according to the provisions of 40 CFR 63.6(e)(3).

iii. Pursuant to 40 CFR 63.7835:

A. Consistent with 40 CFR 63.6(e) and 63.7(e)(1), deviations from NESHAP requirements that occur during a period of startup, shutdown, or malfunction are not violations if the Permittee demonstrates to the Illinois EPA that the Permittee was operating in accordance with 40 CFR 63.6(e)(1).

B. The Illinois EPA will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 40 CFR 63.6(e).

iv. The Permittee shall fulfill the applicable reporting requirements identified in Condition 5.10.5(b) and 40 CFR 63.7841(b)(4) and (c).

- v. The Permittee shall keep records in accordance with 40 CFR 63.7842(a)(2) related to startup, shutdown and malfunction.
- b. Provisions of State Emission Standards, Pursuant to 35 IAC 201.149 and Part 201 Subpart I

- i. Subject to the following terms and conditions, the Permittee is authorized to continue to operate in violation of the applicable standards as specified below in the event of a malfunction or breakdown.

- A. For the BOPFs, the applicable state standards in Condition 7.5.3-1(a)(iii), (b)(ii) and (c), and

- B. For the LMF, the applicable state standards in Conditions 7.5.3-1(b)(iii) and (c).

Note: This authorization is provided because the Permittee applied for such authorization in its CAAPP application, generally explaining why such continued operation would be required to prevent injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns.

- ii. This authorization only allows such continued operation as necessary to prevent injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.

- iii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall, as soon as practicable, repair the units and/or re-establish applicable control practices.

- iv. The Permittee shall fulfill the applicable recordkeeping requirements of Condition 7.5.9(h) and reporting requirements of Condition 5.10.5-2.

- v. Following notification to the Illinois EPA (see Condition 5.10.5-2(a)(i)) of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident.

- vi. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a

permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

7.5.5-3 Work Practices from Permit 10080021 (T1)

- a. During the refining phase of operation, the steam rings on the BOPFs shall be operated in accordance with written procedures developed by the Permittee that set forth the timing and rate of steam injection as related to furnace operation and reflect good air pollution control practice to minimize emissions of particulate matter.

7.5.5-4 Operational Requirements from Permit 11050006 [T1]

- a. The design capacity of the BOPF baghouse shall be at least 900,000 acfm, so as to be able to simultaneously control tapping of one BOPF and charging of the other BOPF and the simultaneous tapping of both BOPFs.
- b. When the BOPF baghouse control system begins to operate:
 - i. The Permittee shall not conduct oxygen blowing simultaneously in both BOPFs unless this mode of operation is authorized by an appropriate construction permit.
 - ii. The Permittee shall continue to operate the capture systems that are part of the ESP control system in accordance with applicable operational requirements of the NESHAP for capture systems for secondary emissions from BOPFs (e.g. 40 CFR 63.7800(b)(1) and (3)), even though the ESP control system only controls primary emissions from the BOPFs.
- c. After the shakedown of the BOPF baghouse system is complete and in no case later than six months after initial operation of the BOPFs with the BOPF baghouse system, the ESP shall only be used for control of emissions from charging and tapping of the BOPFs during an extended outage of the BOPF baghouse.

7.5.6 Production and Emission Limitations from Permits 95010001 and 83050042

- a. Total combined production of liquid steel from the BOPFs shall not exceed 11,000 net tons per day, averaged over any calendar month. [T1]

b. BOF Shop Emissions (tons/yr total) shall not exceed the following limits: [T1]

<u>PM</u>	<u>PM₁₀</u>	<u>NO_x</u>	<u>VOM</u>	<u>CO</u>	<u>Lead</u>
<u>510</u>	<u>451</u>	<u>70</u>	<u>12</u>	<u>16,097</u>	<u>1.43</u>

c. BOF ESP Stack emissions shall not exceed the following limits: [T1]

<u>Pollutant</u>	<u>Emission Factor (Lbs/Ton)</u>	<u>Maximum Emissions (Tons/Yr)</u>
<u>PM</u>	<u>0.16</u>	<u>262.80</u>
<u>PM₁₀</u>	<u>0.16</u>	<u>262.80</u>
<u>NO_x</u>	<u>0.0389</u>	<u>69.63</u>
<u>VOM</u>	<u>0.0060</u>	<u>10.74</u>
<u>CO</u>	<u>8.993</u>	<u>16,097.47</u>
<u>Lead</u>	<u>0.1934 lbs/hr</u>	<u>1.26</u>

d. BOF Roof Monitor emissions shall not exceed the following limits: [T1]

<u>Pollutant</u>	<u>(Lbs/Ton)</u>	<u>(Tons/Yr)</u>
<u>PM</u>	<u>0.0987</u>	<u>176.71</u>
<u>PM₁₀</u>	<u>0.06614</u>	<u>118.40</u>
<u>Lead</u>	<u>0.0129 lbs/hr</u>	<u>0.08</u>

e. Hot Metal Desulfurization and Hot Metal Transfer emissions shall not exceed the following limits: [T1]

<u>Pollutant</u>	<u>Emission Factor (Lbs/Ton)</u>	<u>Maximum Emissions (Tons/Yr)</u>
<u>PM</u>	<u>0.03721</u>	<u>58.88</u>
<u>PM₁₀</u>	<u>0.03721</u>	<u>58.88</u>
<u>VOM</u>	<u>0.0010</u>	<u>1.58</u>
<u>Lead</u>	<u>0.0133 lbs/hr</u>	<u>0.09</u>

f. Hot metal charging and ladle slag skimming emissions shall not exceed the following limits: [T1]

<u>Pollutant</u>	<u>Emission Factor (Lbs/Ton)</u>	<u>Maximum Emissions (Tons/Yr)</u>
<u>PM</u>	<u>0.0050</u>	<u>7.94</u>
<u>PM₁₀</u>	<u>0.0050</u>	<u>7.94</u>

g. Emissions from Argon Stirring Station and Material Handling Tripper (Ladle Metallurgy Baghouse #2) shall not exceed the following limits: (See also Section 7.1)

<u>Pollutant</u>	<u>Emission Factor (Lbs/Ton)</u>	<u>Maximum Emissions (Tons/Yr)</u>
------------------	--------------------------------------	--

<u>PM</u>	<u>0.00715</u>	<u>12.80</u>
<u>PM₁₀</u>	<u>0.00715</u>	<u>12.80</u>

h. Compliance with the annual limits in Conditions 7.5.6(b) through (g) shall be determined on a calendar year basis. [T1]

Note: These provisions (Conditions 7.5.6(a) through (h) were originally established in Construction Permit 95010001.

i. Emissions of particulate matter from the Ladle metallurgy station and the existing argon stirring station shall not exceed 16.20 tons per year. [T1]

j. The maximum process weight for 1) argon stirring, 2) ladle reheat, 3) alloy addition, 4) ladle slag skimming, and 5) hot metal desulfurization shall not exceed 356.7 tons per hour for 8,760 hours per year. [T1]

Note: These provisions (Conditions 7.5.6(i) and (j)) were originally established in Permit 83050042.

7.5.6-1 Emission Limit from Permit 11050006

a. Following completion of the shakedown period for the BOPF baghouse system, the emissions of particulate matter (PM) from the BOPF baghouse, as would be measured by USEPA Method 5, 5D or 17, shall not exceed 0.005 grains per dry standard cubic foot (gr/dcsf).

7.5.7 Testing Requirements

a. Testing Requirements in 40 CFR Part 63 Subpart FFFFF:

i. For the BOPFs, pursuant to testing provisions of this NESHAP, as provided below, testing of particulate matter (PM) emissions of the ESP shall be conducted at least every 30 months and testing of the BOPF baghouse shall be conducted at least every five years.

A. Pursuant to 40 CFR 63.7821(b), for the BOPFs (which are equipped with a control device other than a baghouse), the Permittee shall conduct performance tests for the ESP no less frequently than twice (at mid-term and renewal) during each term of the title V operating permit (i.e., this CAAPP permit).

B. Pursuant to 40 CFR 63.7821(c), for the BOPFs (as they are equipped with a baghouse), the Permittee shall conduct performance tests for

the baghouse no less frequently than once every 60 months.

ii. Pursuant to 40 CFR 63.7821(c), for each BOPF Process equipped with a baghouse, other than the BOPFs, the Permittee shall conduct subsequent performance tests no less frequently than once during each term of the Title V operating permit (every 60 months).

iii. The Permittee shall use the following test methods for compliance demonstration with the emission limits for particulate matter: [40 CFR 63.7822(b)]

A. The Permittee shall determine the concentration of particulate matter according to the following test methods in Appendix A to 40 CFR Part 60.

1. Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

2. Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

3. Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

4. Method 4 to determine the moisture content of the stack gas.

5. Method 5, 5D, or 17, as applicable, to determine the concentration of particulate matter (front half filterable catch only).

B. The Permittee shall collect a minimum sample volume of 60 dry standard cubic feet (dscf) of gas during each particulate matter test run. Three valid test runs are needed to comprise a performance test.

iv. Pursuant to 40 CFR 63.7822(g), for the ESP (which is a primary emission control system applied to emissions from a BOPF with an open hood system), the Permittee shall complete the following requirements:

A. Sample only during the steel production cycle. The Permittee shall conduct sampling under

conditions that are representative of normal operation. The Permittee shall record the start and end time of each steel production cycle and each period of abnormal operation; and

B. Sample for an integral number of steel production cycles. The steel production cycle begins when the scrap is charged to the BOF and ends 3 minutes after the slag is emptied from the vessel into the slag pot.

v. Pursuant to 40 CFR 63.7822(h), for a control device applied to emissions from BOPF shop ancillary operations (hot metal transfer, slag skimming, hot metal desulfurization, or ladle metallurgy), the Permittee shall sample only when the operation(s) is being conducted.

vi. The Permittee shall conduct each visible emissions performance test such that the opacity observations overlap with the performance test for particulate matter (PM). [40 CFR 63.7823(b)]

vii. The following test methods shall be used for opacity observations pursuant to 40 CFR 63.7823(d):

Using a certified observer, the Permittee shall determine the opacity of emissions according to Method 9 in Appendix A to Part 60 as specified below:

A. Instead of procedures in section 2.4 of Method 9 in Appendix A to 40 CFR Part 60, the Permittee shall record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles.

B. Instead of procedures in section 2.5 of Method 9 in Appendix A to 40 CFR Part 60, the Permittee shall determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.

b. Pursuant to Sections 39.5(7)(d) and (p) of the Act, in conjunction with the testing of emissions required for an emission unit in the BOPF shop by the NESHAP (Condition 7.5.7(a), which requires testing at the midterm and renewal of this CAAPP permit), the Permittee shall also have testing conducted to measure emissions of other pollutants as follows.

i. Testing shall be conducted for PM/PM₁₀*, lead and other pollutants as follow: BOPFs (ESP) - NO_x, VOM and CO; and Hot Metal Desulfurization and Slag Skimming (Baghouses) - VOM.

* As an alternative to measurements for PM₁₀ emissions, the measured results for PM, as determined in accordance with the NESHAP, shall be considered PM₁₀, as provided for by 35 IAC 212.108.

ii. The relevant test method specified by the NESHAP or the following USEPA test methods shall be used for this testing, unless another USEPA test method is approved by the Illinois EPA during the review of a Test Plan submitted by the Permittee prior to testing.

<u>Location of Sample Points</u>	<u>Method 1</u>
<u>Gas Flow and Velocity</u>	<u>Method 2</u>
<u>Flue Gas Weight</u>	<u>Method 3</u>
<u>Moisture</u>	<u>Method 4</u>
<u>VOM</u>	<u>Method 18 or 25A</u>
<u>NO_x</u>	<u>Method 7E or 19</u>
<u>CO</u>	<u>Method 10 or 10B</u>
<u>Lead</u>	<u>Method 29</u>

iii. For this emission testing, test notifications and reporting shall be done by the Permittee in accordance with Condition 8.6.2 and 8.6.3 of this permit.

c. As provided by 35 IAC 212.446(c), observations to determine compliance with the opacity standard in 35 IAC 212.446(c) (see Condition 7.5.3-1(a) (iii)) shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9, incorporated by reference in 35 IAC 212.113, except that compliance shall be determined by averaging any 12 consecutive observations taken at 15 second intervals.

7.5.7-1 Emission Testing Requirements from Permit 11050006

a. The Permittee shall have emissions testing conducted for the BOPF baghouse and ESP by a qualified testing service as follows:

i. A performance test for PM emissions shall be conducted within 180 days of initial operation of the BOPFs with the BOPF baghouse system, unless this is prevented by *force majeure* event(s), in which case, testing shall be conducted as soon as practicable after the *force majeure* event occurs.* This performance test shall be conducted in accordance with 40 CFR 63.7824(c) to verify compliance with

applicable emission limits for PM set by the NESHAP and this permit and to establish new operating limits for the capture systems for the BOPFs pursuant to the NESHAP and this permit. For this purpose, performance testing shall be conducted for operation of the BOPFs with the BOPF baghouse and ESP systems.

* If testing is or will be delayed because of event(s) that the Permittee considers to constitute force majeure, the Permittee shall notify the Illinois EPA, as set forth by 40 CFR 63.7(a)(4).

ii. A. A further test for PM emissions and tests for emissions of filterable PM₁₀ and PM_{2.5}, condensable particulate matter, lead, NO_x, CO and VOM shall be conducted within one year of initial operation of both BOPFs with charging and tapping controlled by the BOPF baghouse system. The measurements for emissions of PM and other pollutants required by these tests and the tests required by Condition 7.5.7-1(a)(iii) may be combined with other measurements required for the BOPFs if measurements are conducted within the time periods specified by these conditions. In conjunction with this emission testing, the Permittee shall conduct or have conducted measurements as necessary to evaluate the actual operation and capture efficiency achieved by the hoods for charging and tapping as compared to their design. These tests and measurements shall be the basis of the Project Report required by Condition 7.5.10-1(c)(iii) for the BOPF baghouse system.

B. Notwithstanding the above, testing for emissions of NO_x, CO or VOM from the BOPF baghouse need not be conducted if preliminary measurements for the pollutant indicate emissions are below the detection limit of the applicable test method.

iii. A follow-up test for emissions of PM, filterable PM₁₀ and PM_{2.5}, condensable particulate matter and lead shall be conducted between 24 and 36 months of the completion of the emission testing required by Condition 7.5.7-1(a)(ii).

b. i. Testing for PM emissions shall be conducted using applicable methods and procedures specified by the NESHAP.

ii. Applicable USEPA test methods and procedures shall be used for testing of emissions of pollutants other than PM, including the following methods for measurement of the emissions of different pollutants, unless other methods are approved by the Illinois EPA as part of the approval of a test plan. Refer to 40 CFR 60, Appendix A, and 40 CFR 51, Appendix M, for USEPA test methods.

<u>Filterable PM₁₀ and PM_{2.5}</u>	<u>Method 201A</u>
<u>Condensable Particulate</u>	<u>Method 202</u>
<u>Lead</u>	<u>Method 29</u>
<u>Nitrogen Oxides</u>	<u>Method 7E</u>
<u>Carbon Monoxide</u>	<u>Method 10</u>
<u>Volatile Organic Material</u>	<u>Method 25A</u>

iii. During all test runs for emissions of PM and filterable PM₁₀ or PM_{2.5} required by Condition 7.5.7-1(a), observations of the opacity of the exhaust from the roof monitor of the BOPF shop shall also be conducted in accordance with applicable methods and procedures of the NESHAP, including 40 CFR 63.7823(d), and information recorded on the timing of charging, refining, tapping and deslagging of each BOPF, so opacity data may be correlated with the operation of the BOPFs.

c. The Permittee shall submit a written plan to the Illinois EPA for review and comment for this testing. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information at a minimum:

i. A description of the planned emission test.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific operating conditions under which testing will be performed, including a discussion of why these conditions will appropriately address operation of the BOPFs and associated control systems and the levels of operating parameters of the control systems at or within which compliance is intended to be shown.

iv. The specific determination of emissions intended to be made, including sampling and monitoring locations.

v. The test methods that will be used, with the specific analysis method.

- vi. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
 - vii. A statement that the testing will be performed by a qualified independent testing service.
 - viii. If preliminary measurements will be made for emissions of NO_x, CO, or VOM from the BOPF baghouse to determine whether emissions are below the detection limit of the applicable test method, a description of the proposed approach to such measurements.
- d.
- i. Prior to carrying out each set of emission tests, the Permittee shall notify the Illinois EPA a minimum of 30 days prior to the scheduled date of these tests with the exact date and time that testing would begin, to enable the Illinois EPA to witness these tests.
 - ii. If the scheduled date for testing is changed, the Permittee shall inform the Illinois EPA within 5 working days of the new date and time for testing.
 - iii. Notwithstanding the above, the Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.
- e.
- The Permittee shall submit three copies of the Final Report(s) for emissions tests to the Illinois EPA no later than 60 days after completion of sampling. The Final Report shall include at a minimum:
- i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.
 - ii. A summary of the measured emissions in pounds per hour, lbs/ton steel and, for PM, in gr/dscf.
 - iii. Detailed data for operating parameters of the control system during testing, including data recorded by the operational monitoring systems and, as applicable, proposed operating parameter limits based on the emission testing.
 - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses,

sample calculations, and data on equipment calibration.

vi. A comparison of measured data to applicable emission standards and limits and a statement whether compliance was demonstrated.

vii. The data for opacity of the exhaust through the roof monitor of the BOPF shop during testing and the timing of charging, refining, tapping and deslagging of the BOPFs, as determined and recorded pursuant to Condition 7.5.7-1(b) (iii), accompanied by copies of the certification(s) pursuant to USEPA Method 9 of the individual(s) who made the observations of opacity.

viii. If emission testing for NO_x, CO or VOM from the BOPF baghouse was not conducted, as provided for by Condition 7.5.7-1(a) (ii) (B), documentation for the preliminary measurements that show emissions are below the detection limit of the applicable test method.

f. The Permittee shall retain copies of the reports for these emission tests for at least five years beyond the date that an emission test report is superseded by subsequent testing for all pollutants.

7.5.7-2 Other Testing Requirements from Permit 11050006

a. In conjunction with the emission testing required by Condition 7.5.7-1(a) (ii) or (iii), the Permittee shall conduct or have conducted measurements as necessary for a determination of the PM control efficiency of the BOPF baghouse during normal operation of the BOPFs, including associated control systems, which efficiency may be determined either "directly" (e.g., by measurements of the PM loading at the inlet of the BOPF baghouse for comparison to the measured PM emission rate) or "indirectly" (e.g., by recordkeeping for the amount of material collected by this baghouse over a week or month, to determine an average collection rate per hour or per steel production cycle, for comparison to the measured emission rate).

b. These measurements and the determination of the PM control efficiency of the BOPF baghouse, in percent, shall be included in the relevant report for emission testing pursuant to Condition 7.5.7-1(e).

7.5.8 NESHAP Monitoring and Inspection Requirements

a. NESHAP Monitoring for Capture Systems (40 CFR 63.7830(a))

For each capture system for secondary emissions from the BOPFs (as it is subject to an operating limit pursuant to ~~in~~ 40 CFR 63.7790(b) (1) established in Permittee's capture system operation and maintenance plan), the Permittee shall install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the requirements in 40 CFR 63.7830(a) and 63.7831(e).

- b. NESHAP Monitoring for Baghouses (40 CFR 63.7830(b) (1) and 63.7833(c))

The Permittee shall operate and maintain a bag leak detection system on each baghouse for the BOPFs and each baghouse for BOPF shop ancillary operation(s) (i.e., Baghouse #2, the slag skimmer baghouse and the BOPF baghouse) according to 40 CFR 63.7831(f) and 63.7833(c) (1) and (4) and monitor the relative change in particulate matter loadings according to the requirements in 40 CFR 63.7832.

- c. NESHAP Inspections for Baghouses [40 CFR 63.7830(b) (4) and 63.7833(c) (2)]

The Permittee shall conduct inspections of each baghouse for the BOPFs and each baghouse for BOPF shop ancillary operation(s) at the specified frequencies according to the following requirements+. Pursuant to 40 CFR 63.7833(c) (3), the Permittee shall also maintain all records needed to document conformance with these requirements.

- i. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the operation and maintenance manual. [40 CFR 63.7830(b) (4) (i)]
- ii. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms. [40 CFR 63.7830(b) (4) (ii)]
- iii. Check the compressed air supply for pulse-jet baghouses each day. [40 CFR 63.7830(b) (4) (iii)]
- iv. Monitor cleaning cycles to ensure proper operation using an appropriate methodology. [40 CFR 63.7830(b) (4) (iv)]
- v. Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means. [40 CFR 63.7830(b) (4) (v)]

- vi. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides. The Permittee does not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices. [40 CFR 63.7830(b)(4)(vi)]
- vii. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks. [40 CFR 63.7830(b)(4)(vii)]
- viii. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. [40 CFR 63.7830(b)(4)(viii)]
- d. NESHAP Monitoring for the ESP [40 CFR 63.7830(d) and 63.7833(g)]
 - i. For the ESP for BOPFs (which is ~~are~~ subject to an opacity operating limit pursuant to 40 CFR 63.7790(b)(3)), the Permittee shall operate and maintain a continuous opacity monitoring system (COMS) according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting the stack according to the requirements in 40 CFR 63.7832.- [40 CFR 63.7830(d)]-
 - ii. If the hourly average opacity for the ESP for the BOPFs exceeds the operating limit, the Permittee shall follow the following procedures:
 - A. The Permittee shall initiate corrective action to determine the cause of the exceedance within 1 hour. During any period of corrective action, the Permittee must continue to monitor and record all required operating parameters for equipment that remains in operation. Within 24 hours of the exceedance, the Permittee shall measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit. [40 CFR 63.7833(g)(1)]

- B. If the required initial corrective action was not successful, the Permittee shall complete additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, the Permittee shall continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24-hour period, the Permittee shall again measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit. [40 CFR 63.7833(g)(2)]
- C. For purposes of 40 CFR 63.7833(g)(1) and (2), in the case of an exceedance of the hourly average opacity operating limit for an ESP, measurements of the hourly average opacity based on visible emission observations in accordance with Method 9 may be taken to evaluate the effectiveness of corrective action. [40 CFR 63.7833(g)(3)]
- D. If the second attempt at corrective action required by 40 CFR 63.7833(g)(2) was not successful, the Permittee shall report the exceedance as a deviation in the next semiannual compliance report according to 40 CFR 63.7841(b). [40 CFR 63.7833(g)(4)]
- e. NESHAP Requirements for Installation, Operation, And Maintenance of Monitors for Baghouses [40 CFR 63.7831(f)]

For the BOPF baghouse and the baghouses for BOPF shop ancillary operations (i.e., the slag skimmer baghouse and Baghouse #2), which are all subject to 40 CFR 63.7830(b)(1), the Permittee shall install, operate and maintain the bag leak detection system according to the following requirements of 40 CFR 63.7831(f) and monitor the relative change on particulate matter loading according to the requirements in 40 CFR 63.7832:

- i. The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.7831(f)(1)]

- ii. The system must provide output of relative changes in particulate matter loadings. [40 CFR 63.7831(f) (2)]
- iii. The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel. [40 CFR 63.7831(f) (3)]
- iv. Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, "Fabric Filter Bag Leak Detection Guidance", EPA-454/R-98-015, September 1997. The Permittee may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations. [40 CFR 63.7831(f) (4)]
- v. To make the initial adjustment of the system, the Permittee shall establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, the Permittee shall establish the alarm set points and the alarm delay time. [40 CFR 63.7831(f) (5)]
- vi. Following the initial adjustment, the Permittee may not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the Permittee's operation and maintenance plan. The Permittee may not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition. [40 CFR 63.7831(f) (6)]
- vii. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.7831(f) (7)]
- f. NESHAP Requirements for Installation, Operation And Maintenance of the COMS for the ESP [40 CFR 63.7831(h)]

For the ESP (which is subject to the opacity limit in 40 CFR 63.7790(b) (3)), the Permittee shall install, operate, and maintain a COMS according to the following requirements in 40 CFR 63.7831 (h) (1) through (4):

- i. The Permittee shall install, operate, and maintain each COMS according to Performance Specification 1 in 40 CFR Part 60, Appendix B.
 - ii. The Permittee shall conduct a performance evaluation of each COMS according to 40 CFR 63.8 and Performance Specification 1 in Appendix B to 40 CFR Part 60.
 - iii. Each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
 - iv. COMS data must be reduced to 6-minute averages as specified in 40 CFR 63.8(g) (2) and to hourly averages where required by 40 CFR 63 Subpart FFFFF.
- g. General Requirements for Monitoring: [40 CFR 63.7832]
- i. For purposes of the NESHAP, 40 CFR 63 Subpart FFFFF, except for monitoring malfunctions, out-of-control periods as specified in 40 CFR 63.8(c) (7), associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the Permittee shall monitor continuously (or collect data at all required intervals) at all times a subject control/capture system is operating.
 - ii. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. The Permittee shall use all the data collected during all other periods in assessing compliance.
 - iii. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

7.5.8-1 Additional Requirements for Opacity Observations

The following opacity observations shall be performed pursuant to Section 39.5(7) (a), (b) and (p) of the Act:

- a. Routine Opacity Observations for the BOPF Shop

The Permittee shall have the opacity of the exhaust of the building housing the BOPFs determined by a qualified observer in accordance with USEPA Method 9 while the BOF(s) are operating, as further specified below.

- i. Observations of opacity shall be conducted on the following frequency unless absence of adequate daylight or weather conditions preclude scheduled observation, in which case, the next observations shall be conducted on the next operating day of the BOF(s) during which observations of opacity can reasonably be conducted in accordance with USEPA Method 9, except that reading shall be taken as a 3-minute average (12 consecutive observations taken 15 seconds intervals).
- ii. If a baghouse is not installed for control of tapping emissions from the BOFs, these readings shall be performed for at least five days out of every seven. A day is defined as any day when a BOF is in operation for a minimum of four hours during conditions that are acceptable for Method 9 readings. A minimum of 60 consecutive minutes of opacity readings must be obtained and must encompass at least one steel production cycle. A production cycle is defined as the beginning of scrap charging to the completion of deslagging of the steelmaking vessel. Results of these readings shall be reduced to three minute rolling averages.
- iii. Beginning 30 days after initial startup of a baghouse for control of tapping emissions from the BOFs, the Permittee shall have the opacity of the exhaust of the building housing the BOFs determined by a qualified observer in accordance with USEPA Method 9 while the BOF(s) are operating, as further specified below.
 - A. The duration of opacity observations for each test shall be one complete steel making cycle.
 - B. Observations of opacity shall be conducted on the following frequency unless absence of adequate daylight or weather conditions preclude scheduled observation, in which case, the next observations shall be conducted on the next operating day of the BOF(s) during which observations of opacity can reasonably be conducted in accordance with USEPA Method 9.
 - C. On a weekly basis (at least once every seven operating days of the BOFs) except as provided below.

D. On a daily basis (at least 5 days out of seven operating days of the BOFs) if any of the five previous 3-minute average observations measured opacity of 18 percent or more, continuing on a daily basis until the maximum opacities measured in five consecutive daily observations are all less than 18 percent, at which time observations on a weekly basis shall resume.

b. Additional Opacity Observations for the BOPF Shop

Upon written request by the Illinois EPA, additional opacity observations shall be conducted within 5 operating days for the BOPFs from the date of the request by the Illinois EPA or on the date agreed upon by the Illinois EPA, whichever is later. For such observations conducted pursuant to a request from the Illinois EPA:

- i. The Permittee shall notify the Illinois EPA at least 24 hours in advance of the date and time of these observations, in order to enable the Illinois EPA to witness the observations. This notification shall include the name and employer of the qualified observer(s).
- ii. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for observations.
- iii. The duration of these observations shall cover a complete heat or cycle.
- iv. The Permittee shall provide a copy of the current certification for the opacity observer and observer's readings to the Illinois EPA at the time of the observations, if the Illinois EPA personnel are present.

c. Opacity Observations for the ESP for the BOPFs

- i. The Permittee shall determine the opacity from the BOPF ESP stack for at least one hour on any normal work day that the continuous opacity monitor on the BOF ESP stack has an outage that exceeds two consecutive hours and is still down. The readings shall commence as soon as possible after the opacity monitor has been down for two consecutive hours. If meteorological conditions or lack of visibility preclude these observations from being conducted, then this shall be noted in the log book.
- ii. The opacity shall be determined in accordance with the observation procedures set out in 40 CFR Part 60, Appendix A, Method 9.

d. Additional Opacity Observations for the BOPF Shop during the Shakedown of the BOPF Baghouse System

i. The Permittee shall conduct opacity observations for the BOPF shop as follows, while the capture systems for the BOPFs are operated, as practicable, at minimum values of the operating parameters at which the Permittee normally expects to operate these systems.

A. Observations shall be promptly conducted following initial operation of the BOPFs with the BOPF baghouse system.

B. Thereafter, until the performance testing required by Condition 7.5.7-1(a) (i) is conducted, these observations shall be conducted at least every 15 operating days of the BOPF.

ii. These observations shall be conducted in accordance with 40 CFR 63.6(h) (5) and 63.7823(d). As observations must extend over at least three steel production cycles pursuant to 40 CFR 63.7823(d) (ii), opacity observations that the Permittee is otherwise required to conduct for the BOPF Shop by other conditions of this permit may provide a portion of these observations.

iii. The Permittee shall submit individual reports to the Illinois EPA for these opacity observations, which reports shall be submitted within 10 days of the date of observations. In addition to relevant information for reports for opacity observations, these reports shall include the actual values of the operating parameters of the capture systems for the BOPF that were monitored during each steel production cycle for which observations were conducted.

e. The Permittee shall keep records for all opacity observations for the BOPF shop and the BOPF ESP made in accordance with USEPA Method 9 that the Permittee conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such observations are made, these records shall include a formal record for the observations, including a description of the observations that were made, the operating condition of the subject process, the observed opacity, and copies of the raw data sheets for the observations.

7.5.8-2 Operational Monitoring for Steam Rings from Construction Permit 10080021

The Permittee shall install, maintain and operate a continuous monitoring system on each steam ring for the steam valve position (open or closed) and the rate at which steam is being injected.

7.5.8-3 Monitoring Requirements from Permit 11050006

- a. The Permittee shall fulfill applicable monitoring requirements of the NESHAP, 40 CFR 63 Subpart FFFFF, for the BOPF baghouse system by operating a bag leak detection system on the BOPF baghouse, as specified by 40 CFR 63.7830(b)(1) and 63.7833(c)(1) and (4), with timely initiation of appropriate corrective action(s) in the event that the bag leak detection system alarm is triggered and fulfillment of associated recordkeeping and reporting requirements. (See also Condition 7.5.8.)
- b. The Permittee shall monitor the following operating parameters for the BOPF baghouse system if not otherwise monitored pursuant to the NESHAP, 40 CFR 63 Subpart FFFFF. For this purpose, the Permittee may either directly monitor these parameters or indirectly derive and automatically record data for these parameters from other operating parameters that are continuously monitored.
 - i. The actual volumetric flow rate, in cubic feet per minute (acfm), through each separately ducted hood.
 - ii. The actual volumetric flow rate (acfm) at the inlet to the baghouse.
- c. When the BOPF baghouse control system begins to operate and the ESP is only controlling primary emissions, the Permittee shall continue to conduct operational monitoring for the capture systems associated with the ESP in accordance with applicable requirements of the NESHAP (e.g., 40 CFR 63.7830(a) and 63.7831(e)), even though the ESP only controls primary emissions of the BOPFs.

7.5.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items pursuant to Sections 39.5(7)(a), (b) and (e) of the Act:

- a. 40 CFR 63 Subpart FFFFF [40 CFR 63.7842 and 63.7843]
 - i. The Permittee shall keep the following records specified in 40 CFR 63.7842 (a)(1) through (a)(3):

- A. A copy of each notification and report that the Permittee submitted to comply with 40 CFR 63 Subpart FFFFF, including all documentation supporting any initial notification or notification of compliance status that the Permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
 - B. The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - C. Records of performance tests, performance evaluations, and opacity observations as required in 40 CFR 63.10(b)(2)(viii).
- ii. For each COMS, the Permittee shall keep the following records specified in 40 CFR 63.7842 (b)(1) through (4):
- A. Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
 - B. Monitoring data for a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).
 - C. Previous (that is, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
 - D. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- iii. Pursuant to 40 CFR 63.7842(c), the Permittee shall keep the records specified in 40 CFR 63.6(h)(6) for visual observations.
- iv. Pursuant to 40 CFR 63.7842(d), the Permittee shall keep the records required in 40 CFR 63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to the Permittee.
- v. Pursuant to 40 CFR 63.7843, the Permittee shall keep and retain records required by the NESHAP as follows:

- A. The Permittee shall keep the records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).
 - B. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
 - C. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee may keep the records offsite for the remaining 3 years.
- vi. Pursuant to 40 CFR 63.7834(b), the Permittee shall maintain a current copy of the operation and maintenance plan required in 40 CFR 63.7800(b) onsite and available for inspection upon request. The Permittee must keep the plans for the life of subject process or until the process is no longer subject to the requirements of 40 CFR 63 Subpart FFFFF.
 - vii. Pursuant to 40 CFR 63.7831(a), the Permittee shall maintain a copy of the site-specific monitoring plan for each CPMS required by 40 CFR 63.7830. In addition, if the Permittee operates under manufacturer's specifications or manufacturer's instructions, such manufacturer's documentation shall be kept at the source as part of the required records.
- b. Recordkeeping from Permits 72080043 and 95010001:
- The Permittee shall keep the following records:
- i. Total production of molten steel at the BOPFs (daily, monthly, and annual production in tons).
 - ii. Records of all opacity observations. (See also Condition 7.5.8-1(e).)
- c. Recordkeeping from Permit 08110016:
- The operating and maintenance records that the Permittee maintains for the ESP shall include the following information for the induced draft fans on the ESP, in addition to other required information:

- i. The periods of time when the BOPFs operated with less than three properly functioning fans, with description and explanation.
 - ii. The periods of time when the BOPFs are operating and a spare fan is not available, with the identity of the fan(s) that were not available and explanation, e.g., spare fan not available due to regularly scheduled maintenance or spare fan not available due to unplanned breakdown of the main bearings.
- d. Recordkeeping for the steam rings on the BOFs from Construction Permit 10080021:
- i. A. The Permittee shall maintain a record of the steam valve position (open or closed) and the rate at which steam is being injected, as determined by the continuous monitoring systems required by Condition 7.5.8-2.
 - B. In addition to keeping records of the data measured by these monitoring systems, the Permittee shall keep records of the operation, calibration and maintenance of these systems.
 - ii. The Permittee shall maintain an operating log or other records for the BOFs and steam rings that contain information generally documenting the steam rings are being operated in accordance with Condition 7.5.5-3, including information for the timing of the refining phase of each heat of a BOF.
 - iii. The Permittee shall maintain detailed records of the following information for each heat in a BOF in which the steam ring was not operated during the refining phase:
 - A. Identification of the heat and the duration of the incident, i.e., start time and time normal operation was achieved or the refining phase was completed.
 - B. Description of the incident, impact on effectiveness of the steam ring, probable cause, and corrective actions.
 - C. Verification that the established procedures were followed or a description and explanation why procedures were not followed.

Note: These records may be kept with other logs or records that the Permittee keeps for the BOPFs and their instrumentation and need not be kept as a separate record.

e. Production Records

The Permittee shall keep annual records (tons/year) of steel processed at the slag skimming station, the argon stirring station and ladle metallurgy furnace station.

f. Emissions Records

The Permittee shall keep the following records related to the emissions of the basic oxygen processes to verify compliance with the applicable limits in Conditions 7.5.6(b) through (g):

- i. A file containing the emission factors used by the Permittee to determine emissions of different pollutants from such processes, with supporting documentation. These records shall be reviewed and updated by the Permittee as necessary to assure that the emission factors that it uses to determine emissions of the processes do not understate actual emissions, including review when emission testing is conducted for a process. These records shall be prepared and copies sent to the Illinois EPA in accordance with Condition 5.9.6(c).
- ii. Records for any periods of operation of a process that are not otherwise addressed in the required records during which the established emission factor in Condition 7.5.9(f) (i) would understate actual emissions of the process, with description of the period of operation and an estimate of the additional emissions during such period that would not be accounted for by the established factor, with supporting explanation and calculations.
- iii. Records for the annual emissions of such processes for comparison to the limits in Conditions 7.5.6(c) through (g), with supporting calculations.
- iv. Records for combined annual emissions of such processes, based on the summation of the above data, for comparison to the limits in Condition 7.5.6(b).

g. Additional Operational Records

In the operational logs or other records for the operation of the basic oxygen processes, the Permittee shall keep records identifying process upsets that result in the generation of additional opacity or PM emissions, such as loss of the slag cover on the molten metal in a vessel or a spill of molten metal. For these upsets, these records shall include the time of the upset, a description of the

upset, and a discussion of the consequences for PM emissions from the basic oxygen processes.

h. Records for Malfunctions or Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall maintain records of continued operation of the BOFs and LMF as addressed by Condition 7.5.5-2(b), during malfunctions or breakdowns, which at a minimum, shall include the following records. The preparation of these records shall be completed within 45 days of an incident, unless the Permittee conducts a root cause analysis for the incident, in which case the preparation of these records, other than the root cause analysis, shall be completed within 120 days of the incident.

i. Date, time and duration of the incident.

ii. A detailed description of the incident, including:

A. A chronology of significant events during and leading up to the incident.

B. Relevant operating data for the unit, including information such as operator log entries and directives provided by management during the incident.

C. The measures taken to reduce the quantity of emissions and the duration of the incident including the resources utilized to address the incident.

D. The magnitude of emissions during the incident.

iii. An explanation why continued operation of the furnace(s) was necessary to prevent personnel injury or prevent equipment damage.

iv. A discussion of the cause(s) or probable cause(s) of the incident including the following:

A. Whether the incident was sudden, unavoidable, or preventable, including:

1. Why the equipment design did not prevent the incident;

2. Why better maintenance could not have avoided the incident;

3. Why better operating practices could not have avoided the incident; and

- 4. Why there was no advance indication for the incident.
- B. Whether the incident stemmed from any activity or event that could have been foreseen, avoided or planned for.
- C. Whether the incident was or is part of a recurring pattern indicative of inadequate design, operation or maintenance.
- v. A description of any steps taken or to be taken to prevent similar future incidents or reduce their frequency and severity.
- vi. As an alternative to keeping the records required by Condition 7.5.9(h) (iv), the Permittee may perform a root cause analysis. For this purpose, a root cause analysis is an analysis whose purpose is to determine, correct and eliminate the primary causes of the incident and the excess emissions resulting there from. If the Permittee performs a root cause analysis method that would define the problem, define all causal relationships, provide a causal path to the root cause, delineate the evidence, and provide solutions to prevent a recurrence. Such an analysis shall be completed within one year of the incident.

7.5.9-1 Recordkeeping Requirements from Permit 11050006

- a. The Permittee shall maintain a file or other records that contain the following information for the BOPF baghouse system:
 - i. Design data for the capture hoods for charging and tapping, including the analysis for the levels of capture achieved by the hoods for emissions of particulate, i.e., percentages of total emissions from charging and tapping that are collected and directed to the BOPF baghouse.
 - ii. The manufacturer's specifications for the capacity (acfm and scfm) and particulate emissions (gr/dscf) of the BOPF baghouse and the manufacturer's recommended operating and maintenance procedures for this baghouse.
- b. After charging and tapping of both BOPFs first begin to be controlled with the BOPF baghouse system, the Permittee shall keep records of the following information for the BOPFs. The preparation of these records by the Permittee may be automated or these records may be prepared manually or by a combination of manual and automated methods. These

records may be combined with other records that are kept by the Permittee for the BOPFs.

- i. Records for the BOPFs for the total number of steel production cycles per day (24-hours).
- ii. Records for the following information, as calculated from data monitored pursuant to Conditions 7.5.8-3(b) and (c):
 - A. The average flow rate through each separately ducted hood for each BOPF for each steel production cycle (acfm).
 - B. The average flow rate at the inlet to the BOPF baghouse per steel production cycle (acfm/cycle), daily (24-hour) average.
 - C. The average flow rate at the inlet to the ESP per steel production cycle (acfm/cycle), daily (24-hour) average.
- c. After tapping and charging of both BOPFs first begin to be controlled with the BOPF baghouse system, the Permittee shall keep records for periods when charging or tapping of a BOPF is not controlled by this system, including a description of the event, the probable cause(s) of the event, the remedial action(s) taken and any measure(s) taken to prevent similar events in the future.

7.5.10 General Reporting Requirements

- a. 40 CFR Part 63, Subpart FFFFFF [40 CFR 63.7841]
 - i. Compliance report due dates. Unless the Administrator has approved a different schedule, the Permittee shall submit a semiannual compliance report to the permitting authority according to the following requirements:
 - A. Semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - B. Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.
 - ii. Compliance report contents. Each compliance report shall include the following information:

- A. Company name and address.
- B. Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- C. Date of report and beginning and ending dates of the reporting period.
- D. If the Permittee had a startup, shutdown, or malfunction during the reporting period and the Permittee took actions consistent with the source's startup, shutdown, and malfunction plan, the compliance report must include the information in 40 CFR 63.10(d)(5)(i).
- E. If there were no deviations from the continuous compliance requirements in 40 CFR 63.7833 and 63.7834 that apply to the Permittee, a statement that there were no deviations from the emission limitations or operation and maintenance requirements during the reporting period.
- F. If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or continuous emission monitoring system (CEMS)) was out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.
- G. For each deviation from an emission limitation in 40 CFR 63.7790 that occurs at each Basic Oxygen Process where the Permittee is not using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with an emission limitation in 40 CFR Subpart FFFFF, the compliance report must contain the information described in Condition 7.5.10(a)(ii)(A) through (F) and the following information (this includes periods of startup, shutdown, and malfunction):
 - 1. The total operating time of each Basic Oxygen Process during the reporting period.
 - 2. Information on the number, duration, and cause of deviations (including unknown

cause, if applicable) as applicable and the corrective action taken.

H. For each deviation from an emission limitation occurring at each Basic Oxygen Furnace Process where the Permittee is using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in 40 CFR 63 Subpart FFFFF, the Permittee shall include the following information (this includes periods of startup, shutdown, and malfunction):

1. The date and time that each malfunction started and stopped.
2. The date and time that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.
3. The date, time, and duration that each continuous monitoring system was out-of-control as specified in 40 CFR 63.8(c) (7), including the information in 40 CFR 63.8(c) (8).
4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
6. A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
7. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

8. A brief description of the Basic Oxygen Processes.
9. A brief description of the continuous monitoring system.
10. The date of the latest continuous monitoring system certification or audit.
11. A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

iii. Immediate startup, shutdown, and malfunction report. If the Permittee had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with the source's startup, shutdown, and malfunction plan, the Permittee shall submit an immediate startup, shutdown, and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii).

b. Monthly Opacity Exceedance Report.

Monthly opacity exceedance reports for the BOPF ESP shall be sent to the Illinois EPA Regional Office. These reports shall contain all opacity measurements which exceed 30 percent, averaged over a six minute period. These "excess opacity" reports shall provide, for each such incident, the percent opacity measured as well as the date and span of such incident. These reports shall state the reasons for the excess opacity. The reports shall also specify the dates of those periods during which the continuous monitoring system was not in operation [Section 39.5(7)(f)(ii) of the Act].

c. Reporting of Deviations

i. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the Illinois EPA, Air Compliance Section, within 30 days of deviations by the Basic Oxygen Furnace Processes from applicable requirements, unless a NESHAP standard specifies a different timeframe, as follows:

- A. Requirements in Conditions 7.5.3-1 and 7.5.3-2.
- B. Requirements in Condition 7.5.5-1.
- C. Requirements in Condition 7.5.5-3.

- D. Requirements in Conditions 7.5.6(a) through (j).
- ii. All such deviations shall be summarized and reported as part of the semiannual monitoring report required by Condition 8.6.1.
- iii. The Permittee shall notify the Illinois EPA, Air Compliance Section, of all other deviations as part of the semiannual monitoring reports required by Condition 8.6.1.
- iv. All required deviation reports described in Condition 7.5.10(c) above shall contain the following information:
 - A. Date, time and duration of the deviation;
 - B. Description of the deviation;
 - C. Probable cause of the deviation; and
 - D. Any corrective action or preventative measures taken.
- d. The Permittee shall fulfill the following reporting requirements:
 - i. Reporting on malfunction and breakdown (state authorization) shall be performed in accordance with Condition 5.10.5-2.
 - ii. Reporting on the Federal SSM authorization shall be performed in accordance with Condition 5.10.5-3.

7.5.10-1 Reporting Requirements from Permits

- a. Report Required by Permit 08110016:

After the initial year of operation (12 calendar months) of the BOPF with an ESP with four fans, the Permittee shall submit a report to the Illinois EPA that evaluates the impacts of the addition of a fourth fan to the ESP on the particulate matter emissions of the BOPF. This report shall, at a minimum, include the following information and address impacts on both stack emissions of particulate matter (i.e., emissions from the ESP stack) and uncaptured emissions of particulate matter (e.g., emissions from the roof monitor of the BOPF Shop). This report shall be submitted by the end of the third month following the initial year of operation with an ESP with four fans.

- i. A description of typical operating scenarios in which the availability of a spare fan resulted in a

decrease in short-term emissions, with an assessment of the changes in the hourly emission rates, with supporting documentation and calculations.

ii. A description of typical operating scenarios, if any, in which the availability of a spare fan resulted in an increase in short-term emissions, with an assessment of the changes in the hourly emission rates, with supporting documentation and calculations.

iii. An assessment of the overall effect of the addition of a fourth fan on actual annual emissions of the BOF, with supporting operating data and calculations.

b. Report Required by Permit 10080021:

i. Within six months of initial startup of the steam rings on the BOFs, the Permittee shall submit to the Illinois EPA: 1) A Project Report; and 2) A draft of the Permittee's written operating procedures for the steam rings, as required by Condition 7.5.5-3, for review and comment by the Illinois EPA. This Project Report shall include the following:

A. An assessment, with supporting documentation, of the effect of the steam rings on the opacity and, as feasible, particulate loading of the exhaust from the roof monitor of the BOPF Shop during refining, correlated with the rate of steam injection and other operating parameters of the BOF's and their control system; and

B. An identification of circumstances, if any, in which the steam rings must be operated to maintain compliance with applicable emission standards.

ii. The Permittee shall submit reports to the Illinois EPA on a semi-annual basis that include the following information for the operation of the steam rings on the BOFs:

A. Total number of heats during the reporting period.

B. Number of heats during the reporting period without steam rings operating properly, by type of incident, e.g., breakdown of the steam ring interrupting operation, malfunction of the steam ring with insufficient steam flow, or breakdown of support system.

c. Reporting Required by Permit 11050006

i. The Permittee shall notify the Illinois EPA of the following events with respect to the shakedown of the BOPF baghouse system:

A. The planned date for initial operation of the BOPF(s) with this system, at least 5 days in advance, which notification shall also include the date on which it is expected that the opacity observations required by Condition 7.5.8-1(d) (i) (A) will be conducted. If operation with this system will be phased, i.e., the emissions from charging and tapping of both BOPFs will not initially all be controlled by this system, this notification shall include the planned schedule for phase-in of control of emissions by this system.

B. The date that tapping and charging of both BOPFs are initially controlled with this system, no later than 30 days after this date.

C. The date that the shakedown of this system is completed, no later than 30 days after this date.

ii. After the shakedown of the BOPF baghouse system is complete, the Permittee shall notify the Illinois EPA if the ESP will be used for control of emissions from charging and tapping of the BOPFs, with description of the planned use of the ESP and explanation.

iii. Within 18 months of the date that tapping and charging of both BOPFs are initially controlled with the BOPF baghouse system, the Permittee shall submit a Project Report to the Illinois EPA that evaluates the emissions of particulate (as PM₁₀ and PM_{2.5}) and lead from the BOPFs with this system. This one-time report shall include the following:

A. An assessment of the actual levels of capture (percent) that are achieved for emissions from charging and tapping, during normal operation of the BOPFs and control systems.

B. An assessment of the actual level of overall control (percent) for emissions from charging and tapping, for normal operation of the BOPFs and the BOPF baghouse system.

C. An assessment of overall emissions of particulate and lead from the BOPFs on a short-term basis (in lbs/hour and lbs/ton of steel),

with typical and maximum emission rates, for normal operation.

- D. A review of the probable effect of upsets in the operation of the BOPF baghouse system on the short-term emissions of the BOPFs, considering upsets that have been experienced.
- E. An assessment of the distribution of emissions of particulate and lead from the BOPFs between the ESP, baghouse and roof monitor (uncaptured emissions) on a short-term basis, with the typical distribution of emissions, the distribution of emissions with maximum emissions at the roof monitor, and the distribution of emissions with maximum emissions at the ESP, all for normal operation.
- F. An assessment of the actual reductions in annual emissions of particulate (tons/year) from the BOPFs that should be achieved with the BOPF baghouse system.
- G. An assessment of the typical range of opacity from the roof monitor during tapping of a single BOPF, charging of a single BOPF, overlapping tapping and charging of the BOPFs, and periods of operation other than charging and tapping.
- H. Appropriate data and analysis to support the above assessments.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The BOPFs shall only be operated as top oxygen injected vessels, except that, for purposes of checkout and emission testing only, the furnaces may be operated as peripheral and bottom oxygen injected furnaces for a maximum of 120 days. Any further operation of the furnaces as other than top oxygen injected vessels shall be pursuant to a permit granted for such additional operation. [Permit 72080043]

7.5.12 Compliance Procedures

- a. Compliance with the applicable standards of Conditions 7.5.3-1 and 7.5.3-2 is addressed by the work practices, testing, monitoring, recordkeeping and reporting requirements in Section 7.5 of this permit.
- b. Compliance with the production/emission limits of Conditions 7.5.6 and 5.6.2 is addressed by the work practices, testing monitoring, recordkeeping and reporting requirements in Sections 7.5 and 5 of this permit.

7.5.13 Compliance Schedule and Current Enforcement Status

- a. The Permittee shall comply with the following schedule of compliance applicable to BOF shop emissions and established in accordance with modified Consent Order 05-CH-750 (December 23, 2009):

<u>Commitment</u>	<u>Timing</u>
<u>Certify compliance</u>	<u>March 31, 2011</u>

- b. Submittal of Progress Reports

Quarterly Progress Reports shall be submitted beginning with September 2011 and ending upon the achievement of compliance. Each quarterly report shall be submitted no later than 5 days after the end of the corresponding calendar month. The Progress Report shall contain at least the following:

- i. The required date for achieving commitments, and actual dates when such commitments were achieved.
 - ii. Any commitments accepted by the Permittee or otherwise established for the BOFs as part of the resolution of the above referenced Consent Order, with the associated timing for each commitment.
 - iii. A discussion of progress in complying with commitments that are subject to future deadlines.
 - iv. If any commitment was not met, an explanation of why the required timeframe or commitment was not met, and any preventive or corrective measures adopted to achieve required commitment.
- c. After completion of all required commitments and certification of compliance, as identified in Condition 7.5.13(a) no further Quarterly Progress Reports are required to be submitted.

7.5.14 State-Only Conditions

State-only conditions are not being established.

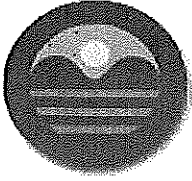
7.5.15 Transition

This version of Section 7.5 (Version 2) will become applicable when the BOPF baghouse control system, which is part of the emission reduction project for the BOPFs addressed by Construction Permit 11050006, begins operation to control particulate emissions of these furnaces. At such time, this version of Section 7.5 will supersede the first version of Section 7.5.

CONTESTED CONDITIONS – Construction Permit Appeal (Permit issued April 1, 2013)

Contested Condition in Part 2 of Construction Permit	Construction Permit Page(s)	Emission Factor
7.5 – Basic Oxygen Processes		
7.5.6(b) – BOF Shop Emissions (tons/yr total) – (Only NOx and VOM annual emission limits)	29	Annual Emissions: <i>NOx:</i> 70 tpy <i>VOM:</i> 12 tpy
7.5.6(c) – BOF ESP Stack (charge, refine, tap)	29	<i>PM:</i> 0.16 lbs/ton <i>PM10:</i> 0.16 lbs/ton <i>NOx:</i> 0.0389 lbs/ton <i>VOM:</i> 0.0060 lbs/ton <i>CO:</i> 8.993 lbs/ton <i>Lead:</i> 0.1934 lbs/hr Maximum Emissions: <i>NOx:</i> 69.63 tpy <i>VOM:</i> 10.74 tpy
7.5.6(c) – BOF ESP Stack – Failure to include note regarding compliance schedule (See Condition 7.5.13)	29	NA
7.5.6(d) – BOF Roof Monitor	29	<i>PM:</i> 0.0987 lbs/ton <i>PM10:</i> 0.06614 lbs/ton <i>Lead:</i> 0.0129 lbs/hr
7.5.6(e) – Hot Metal Desulfurization and Hot Metal Transfer	29	<i>PM:</i> 0.03721 lbs/ton <i>PM10:</i> 0.03721 lbs/ton <i>VOM:</i> 0.0010 lbs/ton <i>Lead:</i> 0.0133 lbs/hr
7.5.6(f) – Hot metal charging and ladle slag skimming	29	<i>PM:</i> 0.0050 lbs/ton <i>PM10:</i> 0.0050 lbs/ton
7.5.6(g) – Argon Stirring Station and Material Handling Tripper (Ladle Metallurgy Baghouse #2)	29-30	<i>PM:</i> 0.00715 lbs/ton <i>PM10:</i> 0.00715 lbs/ton
7.5.13 – Compliance Schedule and Current Enforcement Status – Failure to include compliance schedule for NOx and VOM emissions from the BOF Shop related to the VN issued November 30, 2012.	61	NA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY



1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, ILLINOIS 60601 - (312) 814-6026

PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

TDD 217/782-9143

NOV 30 2012

Certified Mail # 7010 2780 0002 1165 1120
Return Receipt Requested

Richard Veitch
United States Steel Corporation – Granite City Works
1951 State Street
Granite City, Illinois 62040

**RE: Violation Notice A-2012-00169
I.D. 119813AAI**

Dear Mr. Veitch:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act (“Act”), 415 ILCS 5/31(a)(1), and is based upon a review of available information and an investigation by representatives of the Illinois Environmental Protection Agency (“Illinois EPA”).

The Illinois EPA hereby provides notice of alleged violations of environmental laws, regulations, or permits as set forth in Attachment A to this letter. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified alleged violations, including an estimate of a reasonable time period to complete the necessary activities. Due to the nature and seriousness of the alleged violations, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. If a meeting is requested, it shall be held within 60 days of receipt of this notice. The response must include information in rebuttal, explanation, or justification of each alleged violation and a statement indicating whether or not the source wishes to enter into a Compliance Commitment Agreement (“CCA”) pursuant to Section 31(a) of the Act. If the source wishes to enter into a CCA, the written response must also include proposed terms for the CCA that contains dates for achieving each commitment and may also include a statement that compliance has been achieved for some or all of the alleged violations. In order to increase the likelihood of the Illinois EPA accepting such terms, the written response should specifically propose them in a manner that can be formalized into an enforceable agreement between the Illinois EPA and the source. As such, proposed conditions should be as detailed as possible, including steps to be taken to achieve compliance, the manner of compliance, interim and completion dates, etc.

Page 2

Violation Notice A-2012-00169

United States Steel Corporation – Granite City Works, I.D. 119813AAI

The Illinois EPA will review the proposed terms for a CCA provided by the source and, within 30 days of receipt, will respond with either a proposed CCA or a notice that no CCA will be issued by the Illinois EPA. If the Illinois EPA sends a proposed CCA, the source must respond in writing by either agreeing to and signing the proposed CCA or by notifying the Illinois EPA that the source rejects the terms of the proposed CCA.

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with referral to the prosecutorial authority.

Written communications should be directed to ERIC JONES, Illinois EPA, Bureau of Air, Compliance Unit, P.O. Box 19276, Springfield, Illinois 62794-9276. All communications must include reference to the Violation Notice number in this matter.

Questions regarding this matter should be directed to JEFF BENBENEK at 618/346-5120.

Sincerely,



Raymond E. Pilapil, Manager
Compliance Section
Bureau of Air

REP: ej

Violation Notice A-2012-00169

United States Steel Corporation – Granite City Works, I.D. 119813AAI

ATTACHMENT A

Per available information:

1. Section 39.5(6)(a) of the Act and condition 7.5.6(c) of Clean Air Act Permit Program (“CAAPP”) permit 96030056: For at least calendar year 2011, United States Steel Corporation – Granite City Works caused or allowed the emissions of nitrogen oxides (“NOx”) and volatile organic material (“VOM”) from its basic oxygen furnace (“BOF”) and associated electrostatic precipitator (“ESP”) to exceed the emission limits of 69.63 tons/year and 10.74 tons/year, respectively. Additionally, during emissions testing of the BOF and associated ESP, performed on April 3-4, 2012 and July 19-20, 2012, United States Steel Corporation – Granite City Works caused or allowed the emissions of NOx and VOM in excess of the emission limits of 0.0389 lb/ton and 0.006 lb/ton, respectively.
2. Sections 9(a), 9.1(d) and 39.5(6)(a) of the Act, 40 CFR 63.7790(b)(3), and condition 7.5.3(f) of CAAPP permit 96030056: United States Steel Corporation – Granite City Works caused or allowed the hourly average opacity from the BOF and associated ESP to exceed 10% between April 4-6, 2012.
3. Sections 9(a), 9.1(d) and 39.5(6)(a) of the Act, 40 CFR 63.6(e)(1)(i), and condition 7.7.5-1(a) of CAAPP permit 96030056: On April 4-6, 2012, United States Steel Corporation – Granite City Works caused or allowed the operation of the BOF and associated ESP in a manner inconsistent with good air pollution control practices for minimizing emissions to levels required by 40 CFR 63, Subpart FFFFF.
4. Sections 9(a) and 39.5(6)(a) of the Act and condition 7.5.5-3(c)(ii) of CAAPP permit 96030056: United States Steel Corporation – Granite City Works caused or allowed the operation of the BOF after the steam-rings became inoperable. Specifically, from at least July 13, 2012 through October 1, 2012, and the steam-rings on steelmaking vessel #1 were inoperable and from at least August 29, 2012 through October 1, 2012, the steam-rings on steelmaking vessel #2 were inoperable.

RECOMMENDATIONS:

The Illinois EPA suggests that United States Steel Corporation – Granite City Works take the following actions to address the violations stated above:

1. Within 45 days of receipt of this Violation Notice, submit appropriate applications to revise the limitations for NOx and VOM contained in condition 7.5.6(c) of CAAPP permit 96030056.

Violation Notice A-2012-00169

United States Steel Corporation – Granite City Works, I.D. 119813AAI

ATTACHMENT A (Continued)

RECOMMENDATIONS (cont.):

2. Within 45 days of receipt of this Violation Notice, develop, implement, and submit to the Illinois EPA a revised operating and maintenance plan for the ESP that will ensure opacity emissions from the BOF and associated ESP will remain at a level below the hourly average of 10% during normal operation.
3. Within 45 days of receipt of this Violation Notice, develop, implement, and submit to the Illinois EPA a monitoring and maintenance plan that will ensure the proper operation of the steam rings at all times during operation of the BOF.
4. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA emissions calculations for NO_x, VOM, and PM from the BOF and associated ESP for calendar year 2012, along with supporting documentation.



Granite City Works
United States Steel
20th & State Street
Granite City, IL 62040
(618) 451-3456

RECEIVED

January 30, 2013

JAN 31 2013

VIA ELECTRONIC MAIL AND HAND DELIVERY

Illinois Environmental Protection Agency
BUREAU OF AIR
STATE OF ILLINOIS

Michael T. Reed, Manager
CAAPP Unit, Bureau of Air
Illinois Environmental Protection Agency
1021 North Grand Avenue East, Post Office Box 19276
Springfield, Illinois 62794-9276

Subject : United States Steel Corporation Granite City Works
CAAPP No. 96030056, Facility I.D No. 119813AAI
Basic Oxygen Furnace ESP Emissions – Permit Condition 7.5.6(c)

Dear Mr. Reed:

Following up to our prior submittal of stack test results and after receipt of the Violation Notice A-2012-00169, dated November 30, 2012, regarding the Basic Oxygen Furnace ESP emissions, United States Steel Corporation Granite City Works ("U.S. Steel") is hereby submitting a compliance schedule. As you discussed with representatives of U. S. Steel, U. S. Steel respectfully requests that the enclosed schedule, provided per 40 CFR § 70.5(c)(8) and § 39.5 of the Illinois Environmental Protection Act, be incorporated into CAAPP No. 96030056, consistent with 40 CFR § 70.6 and § 39.5 of the Illinois Environmental Protection Act.

The last two stack tests have demonstrated that the BOF ESP cannot maintain compliance with the current emission limits for NOx and VOM. These limits were developed from historic information from a prior owner of the facility. As you know, the ESP does not control nor is it believed to contribute to NOx and VOM emissions.

If you have any questions regarding the enclosed information, please contact Jason Braxton at JKBraxton@uss.com or by phone at (412) 433-6544, or contact Bryan Kresak at BMKresak@uss.com or by phone at (618) 451-3391.

Finally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in cursive script that reads "Richard E. Veitch".

Richard Veitch
General Manager
Granite City Works
United States Steel Corporation

Enclosures

EXHIBIT D

**United States Steel Corporation
Granite City Works
BOP ESP Emissions
Compliance Plan/Schedule
January 30, 2013**

Compliance Plan/Schedule Element	Milestone Date*	Completion Date
1. Advise Illinois EPA regarding stack test results/noncompliance.	September 19, 2012	Complete
2. Submit stack test schedule and test protocols to develop emission factors and revise annual limits for NO _x and VOM		April 30, 2013
3. Begin stack testing	1 months after IEPA approval of stack test plan	August 31, 2013
4. Submit final stack test results	2 months after final test	October 31, 2013
5. Submit emission factors for NO _x and VOM based on stack test results for IEPA approval	1 months after submitting results of final stack test	December 31, 2013
6. Submit PSD #95010001 and Title V permit application(s) for integrated processing to establish new NO _x and VOM emission factors and annual limits	6 months after emission factor approval	June 30, 2014
7. Receive PSD Permit	Assume year after application submittal	June 30, 2015
8. Submit Title V application for an administrative amendment or minor modification to incorporate PSD changes	One month after PSD permit issuance	July 31, 2015
9. Receive administrative amendment from IEPA	Three months	August 31, 2015
10. EPA 60-day review	60-days after submittal	October 31, 2015
11. Submit progress reports to IEPA at a minimum of every six (6) months		
12. Compliance**		October 31, 2015

* An interim milestone date, which is missed, is not a violation provided that the final compliance date(s) are met.

** Compliance date based on receiving final permit(s) with new emission factors



HODGE DWYER & DRIVER

ATTORNEYS AT LAW

MONICA T. RIOS
E-mail: mrios@hddattorneys.com

February 14, 2013

VIA CERTIFIED MAIL

(Return Receipt Requested)

Mr. Dean Studer
Hearing Officer
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P. O. Box 19276
Springfield, Illinois 62794-9276

Re: Comments on U.S. Steel – Revised CAAPP Permit
Granite City Works, Granite City, Illinois
Facility I.D. No. 119813AAI

Dear Mr. Studer:

On February 5, 2013, the Illinois Environmental Protection Agency (“Illinois EPA”) opened a 10 day public notice period on its planned issuance of a revised Clean Air Act Permit Program (“CAAPP”) permit for United States Steel Corporation (“U.S. Steel”). Illinois EPA’s intention is to address the United States Environmental Protection Agency’s (“USEPA”) December 3, 2012 order granting in part and denying in part the American Bottom Conservancy’s Petition to Object to U.S. Steel’s Revised CAAPP permit.

In November 2012, Illinois EPA issued a Violation Notice to U.S. Steel alleging violations for the NOx and VOM limits for the basic oxygen furnace (“BOF”) and associated electrostatic precipitator (“ESP”) in Condition 7.5.6(c) of U.S. Steel’s Revised CAAPP permit. Via letter dated January 30, 2013, U.S. Steel submitted a compliance plan/schedule requesting that it be incorporated into the Revised CAAPP Permit. *See* Attachment A. While Illinois EPA acknowledges receipt of the compliance plan/schedule in the Statement of Basis, Illinois EPA has made the “preliminary decision to wait until the enforcement cases . . . have been resolved and/or adjudicated before including any compliance schedule in a CAAPP permit for the facility.” Statement of Basis at 14-15.

Mr. Dean Studer
February 14, 2013
Page 2

In the Statement of Basis issued with the public notice documents, Illinois EPA explained:

The identification of non-compliance and/or the issuance of a violation notice and reference to the information contained therein, alone, is not sufficient to satisfy the demonstration required under Section 505(b)(2) of the CAA for the inclusion of an approvable compliance schedule in a Title V permit. This alleged non-compliance is simply an early stage in the larger enforcement process of determining whether a violation, in fact, has occurred. This information noted above in the current enforcement cases is, therefore, generally insufficient to warrant a compliance schedule without further investigation by appropriate enforcement staff at the state or federal level.

Statement of Basis at 13.

Although Illinois EPA has made the preliminary decision not to include U.S. Steel's proposed compliance schedule in the planned revisions to the Revised CAAPP Permit, the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/1 *et seq.*, and the regulations promulgated thereunder require that such a compliance schedule be included in the Revised CAAPP Permit when it is reissued. Section 39.5(7)(p)(iii) of the Act states that each CAAPP permit shall include a "schedule of compliance consistent with subsection 5 of this Section and applicable regulations." 415 ILCS 5/39.5(7)(p)(iii); *see also* 415 ILCS 5/39.5(7)(p)(iv) (stating that each CAAPP permit shall include "[p]rogress reports consistent with an applicable schedule of compliance . . .").

Moreover, Section 39.5(7)(p)(iv) of the Act provides that each CAAPP permit shall contain the following elements with respect to compliance:

Progress reports consistent with an applicable schedule of compliance pursuant to paragraph (d) of subsection 5 of this Section and applicable regulations to be submitted semiannually, or more frequently if the Agency determines that such more frequent submittals are necessary for compliance with the Act or regulations promulgated by the Board thereunder. Such progress reports shall contain the following:

- A. Required dates for achieving the activities, milestones, or compliance required by the schedule of compliance and dates when such activities, milestones or compliance were achieved.
- B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Mr. Dean Studer
February 14, 2013
Page 3

415 ILCS 5/39.5(7)(p)(iv); *see also* 40 C.F.R § 70.6(c)(3) – (4) (stating that “[a]ll part 70 permits shall contain the following elements with respect to compliance . . . [a] schedule of compliance . . . ” and progress reports consistent with an applicable schedule of compliance). For such non-compliant emission units, the regulations further require the following:

... a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any such applicable requirements for which the source will be in noncompliance at the time of application submittal. This compliance plan/schedule of compliance addendum shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject

35 Ill. Admin. Code § 270.404(b); *see also* 40 C.F.R. § 70.6(c)(3) (stating that “[a]ll part 70 permits *shall* [emphasis added] contain the following elements with respect to compliance . . . [a] schedule of compliance . . .”).

Based on the provisions discussed above, CAAPP permits are required to include compliance schedules for emission units that are not in compliance with applicable requirements of the permit at the time of issuance. Illinois EPA stated that it is too soon to determine non-compliance based on the issuance of the violation notice to U.S. Steel because the enforcement process is only in the beginning stages. Illinois EPA also noted that other considerations and information needs to be taken into account prior to revising the CAAPP permit to include a compliance schedule. However, U.S. Steel’s January 30, 2013 letter requesting a compliance schedule clearly explained that data from the last two stack tests demonstrated “that the BOF ESP cannot maintain compliance with the current emission limits for NOx and VOM.” *See* Attachment A. Thus, U.S. Steel has concluded, based on stack test data, that it cannot comply with certain permit requirements that will be included in the Revised CAAPP Permit when it is issued. Accordingly, U.S. Steel requested that a compliance schedule be included in the upcoming reissuance of the Revised CAAPP Permit and requests that Illinois EPA reconsider its position on this issue. Furthermore, U.S. Steel requests that Illinois EPA include the requested compliance schedule at a new Condition 7.5.13 in the Revised CAAPP Permit, as well as add a Note (*) after existing Condition 7.5.6(c) as follows:

*These limits have been addressed by the compliance schedule established for compliance with these factors and limits. (See Condition 7.5.13).

Mr. Dean Studer
February 14, 2013
Page 4

U.S. Steel appreciates the opportunity to provide these comments. If you should have any questions regarding the above, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Monica T. Rios". The signature is written in a cursive style with a large initial "M".

Monica T. Rios

MTR:kjg
enclosure

pc: David W. Hacker, Esq. (via electronic mail w/ enclosure)
Mr. Bryan M. Kresak (via electronic mail w/ enclosure)
Mr. Jason K. Braxton (via electronic mail w/ enclosure)
Sally A. Carter, Esq. (via electronic mail w/ enclosure)
Mr. Brad Frost (via electronic mail w/ enclosure)



Granite City Works
United States Steel
20th & State Street
Granite City, IL 62040
(618) 451-3456

RECEIVED

JAN 31 2013

Illinois Environmental Protection Agency
BUREAU OF AIR
STATE OF ILLINOIS

January 30, 2013

VIA ELECTRONIC MAIL AND HAND DELIVERY

Michael T. Reed, Manager
CAAPP Unit, Bureau of Air
Illinois Environmental Protection Agency
1021 North Grand Avenue East, Post Office Box 19276
Springfield, Illinois 62794-9276

Subject : United States Steel Corporation Granite City Works
CAAPP No. 96030056, Facility I.D No. 119813AAI
Basic Oxygen Furnace ESP Emissions – Permit Condition 7.5.6(c)

Dear Mr. Reed:

Following up to our prior submittal of stack test results and after receipt of the Violation Notice A-2012-00169, dated November 30, 2012, regarding the Basic Oxygen Furnace ESP emissions, United States Steel Corporation Granite City Works ("U.S. Steel") is hereby submitting a compliance schedule. As you discussed with representatives of U. S. Steel, U. S. Steel respectfully requests that the enclosed schedule, provided per 40 CFR § 70.5(c)(8) and § 39.5 of the Illinois Environmental Protection Act, be incorporated into CAAPP No. 96030056, consistent with 40 CFR § 70.6 and § 39.5 of the Illinois Environmental Protection Act.

The last two stack tests have demonstrated that the BOF ESP cannot maintain compliance with the current emission limits for NOx and VOM. These limits were developed from historic information from a prior owner of the facility. As you know, the ESP does not control nor is it believed to contribute to NOx and VOM emissions.

If you have any questions regarding the enclosed information, please contact Jason Braxton at JKBraxton@uss.com or by phone at (412) 433-6544, or contact Bryan Kresak at BMKresak@uss.com or by phone at (618) 451-3391.

Finally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in cursive script that reads "Richard E. Veitch".

Richard Veitch
General Manager
Granite City Works
United States Steel Corporation

Enclosures

ATTACHMENT A

**United States Steel Corporation
Granite City Works
BOP ESP Emissions
Compliance Plan/Schedule
January 30, 2013**

Compliance Plan/Schedule Element	Milestone Date*	Completion Date
1. Advise Illinois EPA regarding stack test results/noncompliance.	September 19, 2012	Complete
2. Submit stack test schedule and test protocols to develop emission factors and revise annual limits for NO _x and VOM		April 30, 2013
3. Begin stack testing	1 months after IEPA approval of stack test plan	August 31, 2013
4. Submit final stack test results	2 months after final test	October 31, 2013
5. Submit emission factors for NO _x and VOM based on stack test results for IEPA approval	1 months after submitting results of final stack test	December 31, 2013
6. Submit PSD #95010001 and Title V permit application(s) for integrated processing to establish new NO _x and VOM emission factors and annual limits	6 months after emission factor approval	June 30, 2014
7. Receive PSD Permit	Assume year after application submittal	June 30, 2015
8. Submit Title V application for an administrative amendment or minor modification to incorporate PSD changes	One month after PSD permit issuance	July 31, 2015
9. Receive administrative amendment from IEPA	Three months	August 31, 2015
10. EPA 60-day review	60-days after submittal	October 31, 2015
11. Submit progress reports to IEPA at a minimum of every six (6) months		
12. Compliance**		October 31, 2015

* An interim milestone date, which is missed, is not a violation provided that the final compliance date(s) are met.

** Compliance date based on receiving final permit(s) with new emission factors

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED STATES STEEL)	
CORPORATION,)	
a Delaware corporation,)	
)	
Petitioner,)	
)	
v.	)	PCB 2013-_____
	)	(Permit Appeal-Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

MOTION FOR STAY OF EFFECTIVENESS OF CONTESTED CONDITIONS

NOW COMES Petitioner, UNITED STATES STEEL CORPORATION (hereinafter "U.S. Steel"), by and through its attorneys, HODGE DWYER & DRIVER, pursuant to Section 40.2(f) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/40.2(f), and hereby requests that the Illinois Pollution Control Board ("Board") grant a stay of effectiveness with regard to the contested conditions in the Construction Permit (Subject to Integrated Processing) (App. No. 11050006) issued to U.S. Steel by the Illinois Environmental Protection Agency ("Illinois EPA") on April 1, 2013 ("Construction Permit"). In support of this Motion, U.S. Steel states as follows:

1. On April 1, 2013, Illinois EPA issued the Construction Permit to U.S. Steel's integrated iron and steel mill in Granite City, Illinois, authorizing construction of an emission reduction project. For this project, U.S. Steel will construct a new baghouse to control particulate emissions from charging and tapping at the basic oxygen process furnaces ("BOF").

2. The Construction Permit also authorized revisions to U.S. Steel's Clean Air Act Permit Program permit ("CAAPP Permit") via administrative amendment because the Construction Permit was subject to integrated processing, meaning that the Construction Permit "was subject to procedural requirements and includes compliance requirements that are substantially equivalent to those that apply to CAAPP permits." The revisions authorized to be made to the CAAPP Permit are specified in Part 2 of the Construction Permit.

3. U.S. Steel is contemporaneously filing herewith a Petition for Review ("Petition") of the Construction Permit, specifically contesting the following conditions in Part 2 of the Construction Permit:

- Condition 7.5.6(b) – Annual NOx and VOM Emission Limits for the BOF Shop;
- Condition 7.5.6(c)-(g) – Emission Factors for BOF Shop Activities, NOx and VOM Annual Maximum Emissions for the BOF ESP Stack, and failure to include a note regarding a compliance schedule (See Condition 7.5.13); and
- Condition 7.5.13 – Compliance Schedule and Current Enforcement Status: Failure to include a compliance schedule for NOx and VOM emissions from the BOF Shop.

A table describing the contested conditions in more detail is included with this Motion as Exhibit A. As discussed in more detail below, U.S. Steel requests that the contested conditions described above and in Exhibit A be stayed during the pendency of the review process.

4. U.S Steel's CAAPP Permit is the subject of an appeal proceeding before the Board.¹ In the CAAPP Permit appeal, U.S. Steel requested a stay of effectiveness of certain contested conditions of the CAAPP Permit, pursuant to Section 40.2(f) of the Act.

5. Section 40.2(f) of the Act states the following, in relevant part:

If requested by the applicant, the Board may stay the effectiveness of any final Agency action identified in subsection (a) of this Section during the pendency of the review process. If requested by the applicant, the Board shall stay the effectiveness of all the contested conditions of a CAAPP permit. The Board may stay the effectiveness of any or all uncontested conditions if the Board determines that the uncontested conditions would be affected by its review of contested conditions. If the Board stays any, but not all, conditions, then the applicant shall continue to operate in accordance with any related terms and conditions of any other applicable permits until final Board action in the review process. If the Board stays all conditions, then the applicant shall continue to operate in accordance with all related terms and conditions of any other applicable permits until final Board action in the review process. Any stays granted by the Board shall be deemed effective upon the date of final Agency action appealed by the applicant under this subsection (f). Subsection (b) of Section 10-65 of the Illinois Administrative Procedure Act shall not apply to actions under this subsection.

415 ILCS 5/40.2(f). (Emphasis added.)

6. On May 2, 2013, the Board granted U.S. Steel's request for a stay of contested conditions in the CAAPP Permit appeal. Board Order, *United States Steel Corporation v. Illinois EPA*, PCB No. 13-53 (Ill.Pol.Control.Bd. May 2, 2013) (granting the stay of effectiveness of contested conditions until the Board takes final action in the matter or orders otherwise).

7. The Board, in granting U.S. Steel's request for a stay of contested conditions stated: "Section 40.2(f) of the Act makes clear that contested conditions of a

¹ Petition for Review, *United States Steel Corporation v. Illinois EPA*, PCB No. 13-53 (Ill.Pol.Control.Bd. Apr. 8, 2013).

CAAPP permit shall be stayed at the request of the applicant. 415 ILCS 5/40.2(f) (2010); *see also* CenterPoint Energy – Mississippi River Transmission, LLC v. IEPA, PCB 12-14, clip op. at 3 (Nov. 17, 2011).” Board Order, PCB No. 13-53 at 2.

8. Pursuant to Section 40.2(f), the Board shall grant a stay of the contested conditions in Part 2 (Changes that are “Pre-Authorized” to the CAAPP Permit) of the Construction Permit because the contested conditions are CAAPP Permit conditions that shall be stayed, if requested by U.S. Steel.

9. The Construction Permit was subject to integrated processing in order to authorize certain changes to the CAAPP Permit via administrative amendment. Illinois EPA explained in the Project Summary² for the Construction Permit:

. . . [I]n conjunction with the planned issuance of a construction permit for the new baghouse control system for the BOP furnaces, the Illinois EPA is proposing to authorize changes to conditions the current [CAAPP] permit. . . . This is because this CAAPP permit contains certain requirements for control of the BOP furnaces with the existing ESP that would no longer be feasible, necessary or appropriate when particulate emissions are controlled by the combination of the new baghouse and the ESP control systems. . . . To provide clarity on applicable requirement for the ESP when secondary emissions of the BOP furnaces are controlled by the new baghouse system, it is appropriate that these obsolete conditions be removed from the CAAPP permit.

All of the changes to the current CAAPP permit for the Granite City Works that are proposed to be authorized pursuant to this construction permit are set forth in Part 2 of the draft construction permit.

Project Summary at 13 and 15. (Internal citations omitted.)

² Project Summary/Statement of Basis for the Planned Issuance of a Construction Permit with Integrated Processing* for an Emission Reduction Project for the Existing Basic Oxygen Process Furnaces at United States Steel Corporation’s Granite City Works Granite City, Illinois, Illinois EPA (May 2012). *As this application for a construction permit is being processed with “Integrated Processing,” it is intended that certain changes, as specifically identified in the construction permit, if one is issued, would be authorized to be made to the Clean Air Act Permit Program (CAAPP) permit for the source by administrative amendment, as provided for by Section 39.5(13)(c)(v) of Illinois’ Environmental Protection Act.

10. Part 2 of the Construction Permit includes the same contested conditions from Condition 7.5 of the CAAPP Permit that are currently the subject of the CAAPP Permit appeal. For the same reasons that the contested conditions were contested in the CAAPP Permit appeal, U.S. Steel is appealing the same conditions at Conditions 7.5.6 and 7.5.13 in Part 2 of the Construction Permit.³

11. The above-referenced contested conditions are CAAPP Permit conditions located in Part 2 (Changes that are “Pre-Authorized” to the CAAPP Permit) of the Construction Permit and are wholly consistent with the contested conditions at issue in the CAAPP Permit appeal.

12. The Construction Permit was subject to integrated processing pursuant to Section 39.5(13)(c)(v) of the Act, 415 ILCS 5/39.5(13)(c)(v). The contested CAAPP Permit conditions in Part 2 of the Construction Permit, which authorizes changes to the CAAPP Permit, are subject to Section 40.2(f) requirements. Thus, U.S. Steel requests that the Board grant a stay of the contested CAAPP Permit conditions, as described in Exhibit A, in Part 2 of the Construction Permit during the pendency of the review process, as required by Section 40.2(f) of the Act. A stay of the contested conditions is

³ Illinois EPA explained the authority for an appeal of a permit subject to integrated processing: “This permit was processed in accordance with Section 39.5(13)(c)(v) of the Act and 35 IAC 270.302(e) using ‘integrated processing’, i.e., it was subjected to procedural and compliance requirements substantially equivalent to those for a modification of a CAAPP permit. Any person who participated in the public comment process pursuant to 39.5(8) of the Act or any other person who could obtain judicial review pursuant to 41(a) of the Act, may within 35 days after final permit action petition for a hearing before the Illinois Pollution control Board to contest the attachment to the permit, ‘Part 2: Changes that are “pre-authorized” to the CAAPP Permit.’” Notice from Illinois EPA regarding Emission Reduction Project (April 1, 2013).

necessary to prevent irreparable harm to U.S. Steel and to protect U.S. Steel's clearly ascertainable right to appeal permit conditions.

13. U.S. Steel is simply requesting that the Board grant the required stay of the same contested CAAPP Permit conditions in Part 2 of the Construction Permit, which have already been stayed by the Board in the CAAPP Permit appeal.

WHEREFORE, Petitioner, UNITED STATES STEEL CORPORATION requests the Board grant a stay of effectiveness with regard to the contested conditions of the Construction Permit, as described herein and in the Petition, and any uncontested conditions, as determined by the Board, during the pendency of the review process.

Respectfully submitted,

UNITED STATES STEEL CORPORATION,
Petitioner,

Dated: May 6, 2013

By: /s/ Katherine D. Hodge
Katherine D. Hodge

Katherine D. Hodge
Monica T. Rios
HODGE DWYER & DRIVER
3150 Roland Avenue
Post Office Box 5776
Springfield, Illinois 62705-5776
(217) 523-4900

CONTESTED CONDITIONS – Construction Permit Appeal (Permit issued April 1, 2013)

Contested Condition in Part 2 of Construction Permit	Construction Permit Page(s)	Emission Factor
7.5 – Basic Oxygen Processes		
7.5.6(b) – BOF Shop Emissions (tons/yr total) – (Only NOx and VOM annual emission limits)	29	Annual Emissions: <i>NOx</i> : 70 tpy <i>VOM</i> : 12 tpy
7.5.6(c) – BOF ESP Stack (charge, refine, tap)	29	<i>PM</i> : 0.16 lbs/ton <i>PM10</i> : 0.16 lbs/ton <i>NOx</i> : 0.0389 lbs/ton <i>VOM</i> : 0.0060 lbs/ton <i>CO</i> : 8.993 lbs/ton <i>Lead</i> : 0.1934 lbs/hr Maximum Emissions: <i>NOx</i> : 69.63 tpy <i>VOM</i> : 10.74 tpy
7.5.6(c) – BOF ESP Stack – Failure to include note regarding compliance schedule (See Condition 7.5.13)	29	NA
7.5.6(d) – BOF Roof Monitor	29	<i>PM</i> : 0.0987 lbs/ton <i>PM10</i> : 0.06614 lbs/ton <i>Lead</i> : 0.0129 lbs/hr
7.5.6(e) – Hot Metal Desulfurization and Hot Metal Transfer	29	<i>PM</i> : 0.03721 lbs/ton <i>PM10</i> : 0.03721 lbs/ton <i>VOM</i> : 0.0010 lbs/ton <i>Lead</i> : 0.0133 lbs/hr
7.5.6(f) – Hot metal charging and ladle slag skimming	29	<i>PM</i> : 0.0050 lbs/ton <i>PM10</i> : 0.0050 lbs/ton
7.5.6(g) – Argon Stirring Station and Material Handling Tripper (Ladle Metallurgy Baghouse #2)	29-30	<i>PM</i> : 0.00715 lbs/ton <i>PM10</i> : 0.00715 lbs/ton
7.5.13 – Compliance Schedule and Current Enforcement Status – Failure to include compliance schedule for NOx and VOM emissions from the BOF Shop related to the VN issued November 30, 2012.	61	NA