STATE OF MICHIGAN
WAYNE COUNTY CIRCUIT COURT

SOUTH DEARBORN ENVIRONMENTAL IMPROVEMENT ASSOCIATION, INC., a Michigan non-profit corporation; DETROITERS WORKING FOR ENVIRONMENTAL JUSTICE, a Michigan non-profit corporation; ORIGINAL UNITED CITIZENS OF SOUTHWEST DETROIT, a Michigan non-profit corporation; and SIERRA CLUB, a California corporation,

Appellants,

v

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, a Department of the Executive Branch of the State of Michigan; and DAN WYANT, Director of the Michigan Department of Environmental Quality.

Appellees.

Case No. 14-008887-AA

Hon. _____

CLAIM OF APPEAL OF THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY ISSUANCE OF AIR PERMIT TO INSTALL NO. 182-05C

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CLAIM OF APPEAL

On behalf of their members, South Dearborn Environmental Improvement Association, Inc. (SDEIA); Detroiters Working for Environmental Justice (DWEJ); Original United Citizens of Southwest Detroit (OUCSD); and Sierra Club (collectively, "Appellants"), claim an appeal of the decision of the Michigan Department of Environmental Quality (MDEQ) on May 12, 2014, to issue Air Permit to Install (PTI) No. 182-05C to Severstal Dearborn, LLC. Concurrently with this Claim of Appeal, Appellants are filing a written request for the record, as required by MCR 7.104(d)(3), and a motion for additional evidence, as permitted by MCR 7.119(G).

In support of this Claim of Appeal, Appellants further state as follows:

INTRODUCTION

1. This Claim of Appeal arises out of MDEQ's issuance of Air Permit to Install No. 182-05C ("the Permit") on May 12, 2014. The Permit is attached as **Exhibit 1** to this Claim of Appeal.

2. The Permit increases the authorized emissions levels for multiple emissions sources at the Severstal Dearborn, LLC ("Severstal") facility, located in Wayne County, Michigan.

3. Severstal sought the Permit after alleging it could not operate at maximum production levels within the emission limits in PTI No. 182-05B.

4. Appellants seek review of the Permit because:

   a. MDEQ lacks authority to issue the Permit;

   b. The decision to issue the Permit was contrary to law;

c. The decision to issue the Permit was not based upon a correct evaluation of the applicable regulations, control technologies, and standards;

d. The decision to issue the Permit, and the emissions limits set in the Permit, are arbitrary and capricious, and not supported by substantial evidence;

e. MDEQ failed to consider the impact of the increased emissions limit in the Permit on local communities, and failed to discharge its obligations with respect to Environmental Justice in issuing the Permit; and

f. The decision to issue the Permit was made in a process that was unfair, unjust, improper, and characterized by the undue influence of Severstal and the Michigan Economic Development Corporation.

5. Appellants request the Court to declare the Permit void and of no force and effect and/or remand the Permit to MDEQ for proper analysis.

JURISDICTION AND VENUE

6. This Court has jurisdiction to grant the relief requested in this Claim of Appeal, and venue is appropriate in this Court, pursuant to MCL § 324.5505(8) and the Revised Judicature Act ("RJA"), MCL § 600.631.

7. MCL § 324.5505(8) provides:

> Any person may appeal the issuance or denial by the department of a permit to install, a general permit, or a permit to operate authorized in rules promulgated under subsection (6), for a new source in accordance with section 631 of the revised judicature act of 1961, 1961 PA 236, MCL 600.631. Petitions for review shall be the exclusive means to obtain judicial review of such a permit and shall be filed within 90 days after the final permit action, except that a petition may be filed after that deadline only if the petition is based solely on grounds arising after the deadline for judicial review. Such a petition shall be filed no later than 90 days after the new grounds for review arise.

8. MCL § 600.631 provides:

> An appeal shall lie from any order, decision, or opinion of any state board, commission, or agency, authorized under the laws of this state to promulgate rules from which an appeal or other judicial review has not otherwise been provided for by law, to the circuit court of the county of which the appellant is a resident or to the circuit court of Ingham county, which court shall have and exercise jurisdiction with respect thereto as in nonjury cases. Such appeals shall be made in accordance with the rules of the Supreme Court.

9. MDEQ issued the Permit on May 12, 2014. Under MCL § 324.5505(8), this Claim of Appeal is timely.

PARTIES

10. Appellant South Dearborn Environmental Improvement Association, Inc., is a Michigan non-profit corporation. SDEIA's mission is to undertake activities to further the improvement of environmental conditions in South Dearborn. Most of SDEIA's members live in the South End neighborhood of Dearborn, in Wayne County, which is immediately adjacent to, and downwind from, the Severstal facility. The health, property, recreational, and aesthetic interests of SDEIA's members are adversely impacted by the air pollution emissions allowed by the Permit.

11. Appellant Detroiters Working for Environmental Justice (DWEJ) is a Michigan non-profit corporation. DWEJ champions local and national collaboration to advance environmental justice and sustainable redevelopment. DWEJ also fosters clean, healthy and safe communities through innovative policy, education and workforce initiatives.

12. Appellant Original United Citizens of Southwest Detroit (OUCSD) is a Michigan non-profit corporation. Many of OUCSW's members are residents of Southwest Detroit

communities that are adversely affected by emissions from the Severstal facility. These adverse effects include, but are not limited to, damage to personal health, property, recreational, and aesthetic interests.

13. Appellant Sierra Club is a California non-profit corporation with a regional headquarters located in Traverse City, Michigan, as well as state chapter office in Lansing, Michigan, and a local office in Detroit, Michigan. The Sierra Club is the nation's largest and most influential grassroots environmental organization, with more than two million members and supporters. Sierra Club's members and supporters include residents of Southwest Detroit communities that are adversely affected by emissions from the Severstal facility. These adverse effects include, but are not limited to, damage to personal health, property, recreational, and aesthetic interests.

14. Respondent Michigan Department of Environmental Quality (MDEQ) is a department within the Executive Branch of the State of Michigan, with primary responsibility for administration and enforcement of Michigan's environmental laws and rules.

15. Respondent Dan Wyant is the Director of the MDEQ and its principal executive officer. His principal office is in the City of Lansing, Ingham County, Michigan.

LEGAL BACKGROUND

16. Congress enacted the federal Clean Air Act (CAA) "to protect and enhance the quality of the Nation's air resources to as to promote the public health and welfare and the productive capacity of the population." 42 USC § 7401(b)(1). A "primary goal" of the CAA is to encourage federal, state, and local actions designed to prevent air pollution. 42 USC § 7401(c).

17. With these goals in mind, the United States Environmental Protection Agency (EPA) is required to establish National Ambient Air Quality Standards (NAAQS) for certain "criteria pollutants," including carbon monoxide (CO), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM), which must be attained and maintained in order to protect public health with an adequate margin of safety. 42 USC § 7409. EPA is required to review and update these standards at least every five years, based on improved scientific understanding of the health effects of air pollution. 42 USC § 7409(d). To illustrate, EPA adopted a new 1-hour SO_2 standard in June 2010, and tightened the annual primary standard for particulates less than 2.5 micrometers in diameter ($PM_{2.5}$) in January 2013. 75 Fed Reg 35520 (June 22, 2010) (SO_2 standard); 78 Fed Reg 3086 (Jan 15, 2013) (revised $PM_{2.5}$ standard).

18. A particular area may be designated by EPA as "attainment" or "non-attainment" for each criteria pollutant; an area in attainment for a particular pollutant may be re-designated "non-attainment" as air quality degrades or standards tighten; and a non-attainment area for a particular pollutant may be re-designated as "attainment" when air quality improves. *See generally* 42 USC § 7407(d). To illustrate, Wayne County was designated "non-attainment" for $PM_{2.5}$ in January 2005, re-designated "attainment" for $PM_{2.5}$ in August 2013, and designated "non-attainment" for SO_2 in August 2013. 70 Fed Reg 944 (Jan. 5, 2005) (designated attainment for $PM_{2.5}$); 78 Fed Reg 53272 (Aug. 29, 2013) (re-designated attainment for $PM_{2.5}$); 78 Fed Reg 47191 (Aug. 5, 2013) (designated non-attainment for SO_2).

The CAA Permitting Regime

19. Permitting requirements for major stationary sources of air pollution, like Severstal, are a primary means of ensuring compliance with CAA standards and advancing the Act's goals.

20. Title I of the CAA requires any major emitting facility to obtain a permit before making any modifications (which means physical changes to, or change in method of operations) at a source or facility if the modification will increase existing pollution or result in the emission of any new pollutant. 42 USC §§ 7411, 7475, 7479.

21. Under the corresponding Michigan law, a facility must obtain a permit before it may "install, construct, reconstruct, relocate, alter, or modify any process or process equipment." MCL § 324.5505. Process equipment means "means all equipment, devices, and auxiliary components, including air pollution control equipment, stacks, and other emission points, used in a process." MCL § 324.5501(q).

22. The permitting regime requires a two-fold analysis: whether the facility will employ current technology standards, and whether the modification will result in adverse ambient air quality impacts. 42 USC §§ 7475, 7503.

23. Areas that have attained the NAAQS are subject to the CAA's Prevention of Significant Deterioration (PSD) provisions, which regulate permits issued for construction of new or modified sources of pollution. *See* 42 USC § 7470 *et seq*.

24. A permit issued under the PSD program must establish pollution emission limits reflecting the use of Best Available Control Technology (BACT) for each pollutant that is subject to regulation under the CAA and that is emitted in significant amounts by the source.

Additionally, a PSD program permit must not cause or contribute to air pollution in excess of certain standards. 42 USC § 7475.

25. A modification may avoid applicability of the PSD provisions by "netting out," *i.e.*, crediting certain emissions reductions achieved contemporaneously (within the preceding five years) at one emission source against emissions increases at another source, provided the reduction has not been previously relied upon and other conditions are met. 42 CFR § 52.21(b)(23); Mich Admin R 336.2801(ee).

26. Areas that are not in attainment with the NAAQS are subject to the CAA's Nonattainment New Source Review (NNSR) provisions, which regulate permits issued for construction of new or modified sources of pollution. *See* 42 USC § 7501 *et seq.*

27. A permit issued under the NNSR program must establish pollution emission limits reflecting the use of Lowest Achievable Emission Rate (LAER) for each non-attainment pollutant subject to regulation under the CAA that the source would emit in significant amounts, must offset increased emissions with emissions reductions that meet the regulations, and must meet other compliance and review standards. 42 USC § 7503; Mich Admin R 336.2908.

28. When permits are issued for major new sources of hazardous air pollutants (HAPs), including manganese (Mn) and mercury (Hg), the CAA also requires the establishment of emissions limits for HAPs that represent the use of Maximum Achievable Control Technology (MACT). 42 USC § 7412(g).

29. Under the corresponding Michigan law, permits issued for toxic air contaminants (TACs) must meet "the maximum allowable emission rate based on the application of best available control technology for toxics (T-BACT). . . ." Mich Admin R 336.1224.

The Michigan State Implementation Plan Provisions

30. The CAA allows states to develop their own regulatory approaches for implementing its provisions, called State Implementation Plans (SIPs). *See generally* 42 USC § 7401. A SIP "may not adopt or enforce any emission standard or limitation which is less stringent" than the CAA's requirements. 42 USC § 7416.

31. Michigan has adopted a SIP that encompasses the CAA Title I permitting provisions, and which has been approved by the EPA. Mich Admin Code R 336.202-2908; 42 CFR § 52.1170(c) (listing EPA-approved Michigan regulations, statutes, and executive orders).

32. The Michigan SIP provisions regarding permits under Title I of the CAA are codified at Mich Admin Code R 336.1201-1209 (Title I "Permit to Install" provisions), 336.2801-2823 (PSD provisions), and 336.2901-2908 (NNSR provisions). The EPA approved these Michigan SIP provisions in 1980, 2010, and 2013, respectively. 40 CFR § 52.1170(c).

33. Federal interpretations of the CAA and its regulations are highly persuasive authority when interpreting Michigan's SIP provisions.

Other Relevant Air Quality Provisions

34. Michigan law provides that MDEQ may revoke or deny a permit if, among other circumstances: operation of the source will violate the CAA or Michigan SIP, unless the source is in compliance with a legally enforceable schedule of compliance contained in a permit or order; the person applying for the permit makes a false representation or provides false information during the permit review process; the source has not been installed, constructed, or operated consistent with the application for a permit or as specified in a permit. MCL § 324.5510.

35. The Michigan SIP provides that, "[i]f evidence indicates that the process or process equipment is not performing in accordance with the terms and conditions of the permit to install, the department, after notice and opportunity for a hearing, may revoke the permit to install . . . ." Mich Admin R § 336.1201(8).

36. The Michigan SIP provides that, "[t]he department may only issue a permit approving the construction of a new major stationary source or major modification in a nonattainment area if the department has determined that the owner or operator of the major stationary source or major modification will comply with all of the provisions of this rule." Mich Admin R 336.1208(1).

37. The Michigan SIP provides that, before they may obtain a new permit under NNSR, "[t]he owner or operator of the proposed major stationary source or major modification shall provide an analysis of alternative sites, sizes, production processes, and environmental control techniques for the proposed major stationary source or major modification which demonstrates that the benefits of the proposed major stationary source or major modification significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification." Mich Admin R 336.2908(2)

38. The Michigan SIP provides that, before they may obtain a new permit under NNSR, all major stationary sources located in the state, and owned or controlled by the entity proposing a major modification, "shall be in compliance with all applicable local, state, and federal air quality regulations or shall be in compliance with a legally enforceable permit condition or order of the department specifying a plan and timetable for compliance." Mich Admin R 336.2908(4).

39. Under the CAA and Michigan SIP, if a major source or major modification becomes a major source or major modification solely by virtue of a relaxation in certain kinds of enforceable limitations on the capacity of the major source or major modification otherwise to emit a pollutant, the revision is subject to all PSD and NSR requirements, including BACT, LAER, MACT, T-BACT, and other requirements. *See* 42 CFR § 52.21(r)(4); Mich Admin R 336.2818(2), 336.2902(5)(b).

40. The Michigan SIP provides that, "[u]pon the physical removal of the process or process equipment, or upon a determination by the department that the process or process equipment has been permanently shut down, the permit to install shall become void and the emissions allowed by the permit to install shall no longer be included in the potential to emit of the stationary source." Mich Admin R 336.1201(5).

41. The Michigan SIP and CAA prohibit a shuttered facility from re-opening without first undergoing a new PSD and NNSR review, and EPA has well-established guidelines defining when re-opening a shuttered plant triggers such PSD and NNSR review. *See, e.g.,* U.S. EPA Memorandum from Edward Reich, Director, Division of Stationary Source Enforcement to Stephen A. Dvorkin, Chief, General Enforcement Branch, Region II, Sep. 6, 1978, Re: PSD Requirements.

42. The Michigan SIP prohibits a facility from offsetting emissions increases in non-attainments areas against reductions achieved from shutting down an existing source, unless specific timing and other conditions have been satisfied. Mich Admin R 336.2908(5)(c).

43. The Michigan SIP provides that a preconstruction permit becomes void "[i]f the installation, reconstruction, or relocation of the equipment, for which a permit has been issued,

has not commenced within, or has been interrupted for, 18 months." Mich Admin R 336.1201(4).

44. The Michigan SIP provides that, "[i]f the emission limit does not reflect the maximum emissions of the process or process equipment operating at full design capacity without air pollution control equipment," then the permit shall contain provisions to ensure the practical enforceability of the emission limit, such as "[a] production limit which restricts the amount of final product that may be produced over the same time period used in the emission limit." Mich Admin R 336.1205(1)(a).

45. The Michigan SIP identifies the information that must be provided by an application in support of a permit. Mich Admin R 336.1203.

46. Until October 28, 2013, the Michigan SIP, Rule 336.1206 ("Rule 206") required MDEQ to take action on a permit within 120 days of receipt of all information needed to evaluate the permit; the rule contained no provision for an extension. Effective October 28, 2013, MDEQ amended Rule 206, which now requires MDEQ to take action on a permit application within 240 days of receipt of the application, with the possibility to extend the deadline an additional one year, upon the applicant's agreement. Mich Admin R 336.1206; ORR 2012-107 EQ (published May 14, 2013; effective October 28, 2013) ("Rule 206").

47. The Michigan SIP provides that MDEQ "shall deny an application for a permit to install if, in the judgment of the department, any of the following conditions exist: (a) The equipment for which the permit is sought will not operate in compliance with the rules of the department or state law. (b) Operation of the equipment for which the permit is sought will interfere with the attainment or maintenance of the air quality standard for any air contaminant. (c) The equipment for which the permit is sought will violate [various] applicable requirements

of the clean air act, as amended, 42 U.S.C. §7401 et seq. [list omitted]. (d) Sufficient information has not been submitted by the applicant to enable the department to make reasonable judgments as required by subdivisions (a) to (c) of this subrule." Mich Admin R 336.1207(1) ("Rule 207").

48. Both the federal CAA and Michigan air quality statutes require notice to the affected community, and an opportunity for the community to comment on proposed new permits. 42 USC § 7475; MCL § 324.5511.

49. Before a permit may be issued, the regulator must examine alternatives to the project, and whether the project will disproportionately affect the health, safety, or welfare of, or the environment in, any community or population, including minority and low-income populations and communities. Exec Order 12898, 59 Fed Reg 7629 (Feb 16, 1994); 42 USC §§ 7470(1); MCL § 324.5510; Mich Admin R 336.1203(1)(h), 336.2908(2), 336.1228. This obligation applies to MDEQ directly, and because it is implementing the federal CAA under authority delegated by the EPA and receives federal funding for its air quality program.

FACTUAL BACKGROUND

50. Severstal's Dearborn steel plant is an approximately 350-acre complex containing numerous buildings, processes, and components. These components include, most significantly to this Appeal, the Basic Oxygen Furnace and the C-Blast Furnace.

51. Severstal's Dearborn steel production facility is a "major emitting facility," and it is therefore subject to the permitting requirements of Title I of the CAA and the Michigan PTI program. 42 USC § 7479; Mich Admin R 336.1201.

MDEQ Issues Severstal a Permit in 2006

52. In 2005, Severstal applied for a permit to modify the C-Blast Furnace, to increase steel production at the facility. As part of the permitting process, Severstal was required to install an emissions control baghouse at the C-Blast Furnace, and a secondary emissions control baghouse at the Basic Oxygen Furnace.

53. MDEQ issued a permit for the work, PTI No. 182-05, in January 2006. MDEQ issued revisions to PTI No. 182-05 in July 2006 (PTI No. 182-05A) and April 2007 (PTI No.182-05B). Each revised permit replaced the previous version; Severstal has been subject to the requirements of PTI No. 182-05B since April 2007.

54. PTI No. 182-05B contains emissions limits for each criteria and hazardous pollutant emitted from each emission source at the Severstal facility affected by the modifications. For example, under PTI No 182-05B, the C-Blast Furnace may emit 23.03 pounds per hour of SO_2; the Basic Oxygen Furnace may emit 7.45 pounds per hour of PM; and the desulfurization baghouse may emit 0.00064 pounds per hour of manganese.

55. Severstal completed the work to the C-Blast Furnace, and installation of the secondary baghouse at the Basic Oxygen Furnace, in October 2007.

56. On January 5, 2008, Severstal's B-Blast Furnace was destroyed in a catastrophic incident, and it has since never been repaired or otherwise become operational.

Severstal Does Not Operate in Compliance with PTI No. 182-05B

57. As required by PTI No. 182-05B, starting in September 2008, Severstal performed stack tests at emissions units affected by the increased production work.

58. PTI No. 182-05B required Severstal's stack tests to be conducted at maximum routine operating conditions.

59. The results of Severstal's stack testing showed its operations caused substantial exceedances of several pollutants from multiple emissions sources, as illustrated below:

Source	Pollutant	Emissions Limit PTI 182-05B (lb/hr)	Stack Test Results (lb/hr)
C-Blast Furnace baghouse	PM_{10}	5.70	8.13
	Mn	0.00256	0.01897
	Pb	0.00015	0.001
	SO_2	23.03	120.26
C-Blast Furnace stove	Hg	0.000414	0.00929
Basic Oxygen Furnace baghouse	PM_{10}	3.35	6.56
Basic Oxygen Furnace ESP	CO	3,057	3,237
Desulfurization baghouse	Mn	0.00064	0.00359
	Pb	0.000278	0.000539

60. At the same time, the results of Severstal's stack testing also showed its operations were within the emissions limits for other sources or pollutants, as illustrated below:

Source	Pollutant	Emissions Limit PTI 182-05B (lb/hr)	Stack Test Results (lb/hr)
C-Blast Furnace baghouse	VOC	6.77	4.22
C-Blast Furnace stove	PM_{10}	14.16	9.78
Basic Oxygen Furnace baghouse	PM	7.45	3.96
Basic Oxygen Furnace ESP	PM	50.94	13.5
	PM_{10}	37.70	18.19
Desulfurization baghouse	PM_{10}	1.55	1.48

61. Some of Severstal's emissions limit exceedances identified through stack testing are the result of condensed particles escaping from the new baghouses installed under PTI No.

182-05B. Appellants identified this concern during the permitting process for PTI No. 182-05B, and MDEQ required Severstal to control and account for condensed particles at these baghouses.

62. Some of Severstal's emissions limit exceedances identified through stack testing are the result of Severstal's errors and assumptions, and are unrelated to the work performed under PTI No. 185-02B. For example, until 2009, Severstal apparently failed to recognize that most CO generated at the Basic Oxygen Furnace Electrostatic Precipitator (ESP) results from the oxygen blow portion of the heat, and that the desulfurization baghouse failed to adequately capture condensable particulates.

63. After the initial stack testing, Severstal identified additional sources of emissions limits exceedances and violations, which also were unrelated to the work performed under the PTI No. 182-05B permit. For example, Severstal had failed to properly maintain the Basic Oxygen Furnace ESP, resulting in manganese and lead emissions at levels higher than permitted, and Severstal had installed six emergency generators without obtaining a PSD permit to install them.

64. Since 2007, when Severstal completed the work contemplated by PTI No. 182-05B, MDEQ and EPA have notified Severstal that it has been in violation of its permits (both PTI No. 182-05B and its operating permit) on over 10,000 occasions.

65. MDEQ sent violation notices to Severstal on: Feb. 24, 2009; July 17, 2009; Aug. 12, 2009; Oct. 28, 2009; May 18, 2010; Aug. 18, 2010; Sept. 27, 2010; Nov. 22, 2010; Dec. 10, 2010; Jan. 5, 2011; Mar. 15, 2011; April 28, 2011; Aug. 16, 2011; Sept. 20, 2011; Oct. 24, 2011; Dec. 8, 2011; Mar. 29, 2012; May 1, 2012; May 10, 2012; May 15, 2012; May 16, 2012; June 29, 2012; July 19, 2012; July 31, 2012; Aug. 8, 2012; Aug. 14, 2012; Sept. 13, 2012; Sept. 27,

2012; Nov. 14, 2012; Jan. 30, 2013; Mar. 8, 2013; May 13, 2013; and April 15, 2014. EPA sent violation notices on: Feb. 9, 2009; June 15, 2012; and Mar. 5, 2013.

66. MDEQ staff described the Severstal facility as "by far the most egregious facility in the state." Aug. 16, 2012, email from L. Fiedler (DEQ) to V. Hellwig (DEQ), M. Mitchell (DEQ), T. Seidel (DEQ), and R. Telesz (DEQ).

67. Upon information and belief, neither MDEQ nor EPA have issued an administrative order, sought judicial relief, nor imposed a compliance plan with a timetable for compliance, to address the violation notices issued to Severstal since 2007.

Severstal Negotiates with MDEQ for a New Permit

68. As required by PTI No. 182-05B, in early 2009, Severstal notified MDEQ of its initial stack testing results.

69. In February 2009, Severstal and MDEQ entered negotiations to address the stack test violations.

70. After negotiations were underway, in December 2010, Severstal submitted a new permit application, seeking to "correct" PTI No. 182-05B.

71. Severstal stated, during the permit process, that it did not propose any physical change, or changes in the method of operations, at the facility, and that the permit should not be considered an installation, construction, reconstruction, relocation, or modification.

72. In April of 2010, MDEQ's Air Quality Permit Section Supervisor wrote to Severstal stating:

> As I indicated in our meeting last year, I do not agree that the change being requested is a "correction." There is no provision in the air rules for a correction. Although we do occasionally process a supplemental revision to a permit, this is primarily due to a typo or error on our part that needs

> fixing. Changing emission rates is not an error or correction. It is a modification.

73. Starting in 2012, the Michigan Economic Development Corporation (MEDC) became involved in the permit negotiations with MDEQ and Severstal.

74. MEDC organized meetings, set task lists, developed schedules, reviewed draft agreements, and otherwise had a seat at the table in the MDEQ process leading to the issuance of PTI No. 182-05C. MEDC's involvement in the process is detailed in Appellants' Motion to Present Proofs of Irregularity in Procedure Before the Agency, which is filed concurrently with this Claim of Appeal under MCR 7.119(G).

75. On April 6, 2012, MDEQ determined that it had received all information required under Mich Admin R 336.1203, for Severstal's permit application.

76. On August 16, 2012, Lynn Fiedler, Assistant Division Chief of MDEQ Air Quality Division, stated in an email that Severstal's permit application was deemed complete on April 6, 2012, that MDEQ had 120 days to act upon the application, that "Severstal's equipment has not and currently cannot operate in compliance with either the rules of the department or the Clean Air Act. In fact, 8 Violation Notices have been sent related to equipment being repermitted since the application itself was deemed technically complete."; and "[t]herefore, the DEQ is mandated by Rule 207 to deny the application." Division Chief Hellwig reiterated in a reply email a few minutes later: "We have but one action available and that is to deny this permit if it is not withdrawn."

77. On February 1, 2013, MDEQ and Severstal signed an "Extension Agreement" allowing Severstal additional time to complete the permit application process for PTI No. 182-05C.

78. In May of 2013, MDEQ Director Dan Wyant sent a referral to the Michigan Attorney General, requesting the Attorney General to join the U.S. Department of Justice in an enforcement action against Severstal in federal court.

79. Severstal submitted a revised permit application on September 20, 2013, and additional application permit-related information over the following several months.

80. MDEQ issued public notice of a proposed revised permit on February 12, 2014, announcing a 30 day comment period. On March 13, 2014, MDEQ granted an extension and provided the public until March 31, 2014, to comment on the draft permit.

81. Appellants and many others submitted written and oral comments on the draft permit.

82. MDEQ issued Permit PTI No. 182-05C on May 12, 2014.

MDEQ Applies a Mixed Assortment of Air Quality Provisions to the Application

83. MDEQ processed Severstal's new permit application as if it had been received by MDEQ in 2005, the date of the initial permit application for PTI No. 182-05, and, as a result:

a. MDEQ did not apply the NNSR permitting standards and requirements for SO_2, though Wayne County was designated non-attainment for SO_2 in 2013;

b. MDEQ did not apply permit regulations that treat SO_2 emissions as precursors for $PM_{2.5}$ emissions, which became effective in July 2008;

c. MDEQ did not apply regulations requiring it to impose emissions limits for greenhouse gases, which became effective in January 2011;

d. MDEQ allowed Severstal to re-credit emission reductions achieved in 2007, against historic emissions in 2001 and 2002, to "net out" of applicability of PSD, NNSR, and toxics regulations and provisions;

e. MDEQ allowed Severstal to treat a non-operational source (the B-Blast Furnace) as a substantial historic emissions source, then credit a baghouse that was never installed on the B-Blast Furnace, to "net out" of applicability of PSD, NSNSR, and toxics regulations and provisions;

f. MDEQ required Severstal to "update" its BACT analysis for CO emissions from the C-Blast Furnace, though PTI No. 182-05C does not increase CO emissions from the C-Blast Furnace, but did not require Severstal to undertake any BACT analysis for CO emissions from the Basic Oxygen Furnace ESP, from which CO emissions under PTI No. 182-05C will more than double, compared to PTI No. 182-05B limits; and

g. MDEQ did not apply current technology standards (BACT, LAER, MACT, and T-BACT) to restrict the emissions at various emissions sources.

84. MDEQ, however, was not consistent in processing the application as if it were received in 2005, to the extent that 2005 standards or facts were unfavorable to Severstal:

a. MDEQ did not apply all NNSR permitting standards and requirements for $PM_{2.5}$, though Wayne County was designated $PM_{2.5}$ non-attainment from April 2005 until August 2013;

b. MDEQ applied some of the new regulations to impose emissions limits for $PM_{2.5}$, rather than using PM_{10} as a surrogate for $PM_{2.5}$, which new regulations became effective May 2011;

c. MDEQ allowed Severstal to offset ("reallocate") SO_2 emissions increases at the C-Blast Furnace against emissions reductions achieved in 2008, when the B-Blast Furnace shut down; and

d. MDEQ allowed Severstal to offset ("reallocate") mercury emissions increases resulting from the 2007 PTI No. 182-05B modifications against emissions reductions achieved in 2012 at the Basic Oxygen Furnace ESP.

MDEQ Issues a New Permit That Increases Severstal's Allowable Emissions

85. The new Permit raises the emission limit for every source at the Severstal facility where stack testing demonstrated the source was not operating in compliance with the emission limit in PTI No. 182-05B.

86. For each such non-compliant emission source, the revised emission limit is substantially higher than the actual emissions documented by the stack test results at the time they were performed, as illustrated below:

Source	**Pollutant**	**Emissions Limit PTI 182-05B (lb/hr)**	**Stack Test Results (lb/hr)**	**Emissions Limit PTI 182-05C (lb/hr)**
C-Blast Furnace baghouse	PM_{10}	5.70	8.13	18.24
	Mn	0.00256	0.01897	0.042
	Pb	0.00015	0.001	0.0077
	SO_2	23.03	120.26	179.7
C-Blast Furnace stove	Hg	0.000414	0.000929	0.003
Basic Oxygen Furnace baghouse	PM_{10}	3.35	6.56	17.71
Basic Oxygen Furnace ESP	CO	3,057.0	3,237	7,048
Desulfurization baghouse	Mn	.00064	.003599	0.013
	Pb	0.000278	.000539	0.0016

87. The new Permit also raises the emissions limits for many sources where stack testing demonstrated the source was operating in compliance with the emission limit in PTI No. 182-05B, as illustrated below:

Source	Pollutant	Emissions Limit PTI 182-05B (lb/hr)	Stack Test Results (lb/hr)	Emissions Limit PTI 182-05C (lb/hr)
C-Blast Furnace baghouse	VOC	6.77	4.22	9.92
C-Blast Furnace stove	PM_{10}	14.16	9.78	19.72
Basic Oxygen Furnace baghouse	PM	7.45	3.96	15.6
Basic Oxygen Furnace ESP	PM	50.94	13.5	62.6
	PM_{10}	37.70	18.19	47.5
Desulfurization baghouse	PM_{10}	1.55	1.48	3.6

88. The new Permit authorizes Severstal to emit an additional 201 tons per year of PM; 410 tons per year of PM_{10}; 17,478 tons per year of CO; 472 tons per year of SO_2; and 0.14645 pounds per year of Mn; over the emissions authorized in PTI No. 182-05B.

89. The new Permit also raises the CO emissions limit at the Basic Oxygen Furnace ESP and the desulfurization operation, to resolve deficiencies that were not caused by or otherwise related to the plant modifications authorized by PTI No. 182-05B.

90. The new Permit also allows Severstal to "reallocate" SO_2 emissions reductions from the inoperable B-Blast Furnace and credit them against the increased SO_2 emissions at the operating C-Blast Furnace, effectively increasing actual SO_2 emissions from the facility.

91. The new Permit also imposes a total "combined" SO_2 emissions limit from the C-Blast Furnace (Stove and Baghouse) of 271.4 lb/hr, which is less than the sum of SO_2 emissions

from each the C-Blast Furnace Stove (193.6 lb/hr) and the C-Blast Furnace Baghouse (179.7 lb/hr) (Stove + Furnace = 373.25 lb/hr)., though there is no production or operational limits to ensure the practical enforceability of the total "combined" SO_2 emissions limit.

92. The new Permit also assumes the Basic Oxygen Furnace baghouse will capture 98% of emissions, whereas PTI No. 182-05B assumed it would capture only 95% of emissions, and Severstal has not undertaken changes to improve the capture efficiency of this baghouse since it was installed in 2007, or otherwise sufficiently demonstrated the baghouse is capable of consistently meeting this standard.

93. The new Permit also retroactively authorizes Severstal to install six unpermitted emergency engines that were already installed, which are unrelated to the plant modifications authorized by PTI No. 082-05B.

94. The new Permit does not require Severstal to install any new emissions control equipment (*e.g.,* wet scrubbers, PTFE membrane fabrics) or process changes (*e.g.,* fuel changes) to limit emissions increases.

95. The new Permit does not require Severstal to reduce its production levels to either achieve compliance with the emissions limits in PTI No. 182-05B, or at least maintain emissions at the levels observed during stack testing.

Severstal's Emissions Directly and Disproportionately Impact Appellants' Neighborhoods

96. Emissions from Severstal directly impact the residential neighborhood immediately adjacent and downwind of the facility, known as South Dearborn or the "South End."

97. The South End neighborhood is 80% Arab-American, with 43% of the population having income below the poverty level, and is designated an Environmental Justice area by the EPA.

98. There is an ambient air quality monitor (referred to by MDEQ as the "Dearborn" monitor) located in the parking lot of the Salina School, the South End's elementary and middle school.

99. The Dearborn monitor consistently records some of the highest ambient levels in Michigan of $PM_{2.5}$ and manganese.

100. Emissions from Severstal also directly impact other residential neighborhoods of Southwest Detroit, specifically including, but not limited to, communities located in the 48217 zip code.

101. University of Michigan researchers have determined the 48217 neighborhood of Southwest Detroit to be the most polluted zip code in Michigan. *See 48127: Life in Michigan's most polluted ZIP code*, Detroit Free Press (June 20, 2010).

102. The 48217 neighborhood of Southwest Detroit is also an Environmental Justice area.

103. Residents of the South End and the 48217 neighborhood of Southwest Detroit suffer in disproportionately high numbers from a number of diseases and ailments associated with environmental pollution, including but not limited to asthma and other respiratory diseases.

104. After five years of negotiations between MDEQ and Severstal, with substantial involvement from MEDC and potentially others, MDEQ finally notified Severstal's neighbors about the proposed revised permit on February 12, 2014. Despite MDEQ's prior expressed position, the public notice documents characterized the Draft Permit as a permit "correction"

entitled to regulatory grandfathering. *See* MDEQ Public Participation Document for Permit Application Number 182-05C (Fe. 12, 2014).

105. MDEQ initially announced a 30 day comment period on the permit MDEQ and Severstal negotiated for over five years, involving multiple drafts and thousands of pages of technical data. Upon request from Appellants, MDEQ extended the public comment period until March 31, 2014.

106. Prior to the MDEQ public hearing, Air Quality Division Chief Vinson Hellwig was quoted in the Detroit Free Press as saying about PTI No. 182-05C, "Citizens may object to it, but that's not something we consider on whether to issue or deny the permit," that there would have to be a "major reason" to deny the permit change, and that "there's no imminent hazard there." *Dearborn steel plant may be allowed to release higher levels of toxins*, Detroit Free Press (Mar 11, 2014).

COUNT I

(Lack of Authority to "Correct" PTI No. 182-05B)

107. Appellants restate and incorporate the preceding allegations.

108. When evidence shows process equipment is not performing according the terms of a permit, MDEQ is authorized to issue a legally enforceable compliance schedule or revoke the permit.

109. MDEQ did not issue a legally enforceable compliance schedule nor revoke Severstal's permit.

110. Instead, MDEQ processed PTI No. 182-05C as a permit to "update," "amend," "correct," "fix-up," or "revise" PTI No. 182-05B.

111. MDEQ has no statutory or regulatory authority to amend, correct, fix-up, or revise a permit in a way that increases the emission levels allowed by the Permit.

112. Michigan violated the CAA and Michigan air quality statutes and regulations when it issued PTI No. 182-05C after processing it as an update, amendment, correction, fix, or revision to PTI No. 182-05B.

113. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when processed PTI No. 182-05C as an update, amendment, or correction to PTI No. 182-05B.

COUNT II

(Error to Issue Permit to Severstal While Non-Compliant and Subject to Enforcement)

114. Appellants restate and incorporate the preceding allegations.

115. Since at least early 2009, MDEQ and EPA have issued violation notices to Severstal for thousands of instances of permit and regulation violations, including the stack test exceedances that PTI No. 182-05C is supposed to "correct."

116. EPA referred the Severstal enforcement action to the U.S. Dept. of Justice (DoJ), and MDEQ referred the Severstal enforcement action to the Michigan Attorney General's Office (MI AG).

117. As of the date of this filing, DoJ, on behalf of the EPA, and MI AG, on behalf of MDEQ, are considering injunctive and penalty provisions to resolve Severstal's violations, potentially to include the stack test exceedances that PTI No. 182-05C is supposed to "correct."

118. Injunctive relief achieved through the enforcement action may conflict with the limits and standards in PTI No. 182-05C; alternatively, the issuance of PTI No. 182-05C may

limit the discretion of the DoJ, EPA, MI AG, and DEQ to achieve meaningful compliance through the enforcement action.

119. At all times since January 5, 2005, Wayne County has been designated as a non-attainment area: for $PM_{2.5}$ from January 5, 2005, until August 29, 2013; and for SO_2 since August 5, 2013.

120. The CAA and Michigan SIP prohibit MDEQ from issuing a permit to a facility within a non-attainment area, where the facility is not in compliance with all applicable regulations, or under a legally enforceable compliance plan and timetable for compliance.

121. Severstal is not in compliance with PTI No. 182-05B, its operating permit, and other applicable regulations, and is not under a legally enforceable compliance plan and timetable for compliance.

122. MDEQ lacks authority to issue PTI No. 182-05C to Severstal because the Severstal facility is subject to an ongoing enforcement action, and is not in compliance with all applicable regulations nor under an enforceable compliance plan.

123. Michigan violated the CAA and Michigan air quality statutes, when it issued PTI No. 182-05C to Severstal while Severstal is subject to an ongoing enforcement action, and while the Severstal facility is not in compliance with all applicable regulations nor under an enforceable compliance plan.

124. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C to Severstal while Severstal is subject to an ongoing enforcement action, and while the Severstal facility is not in compliance with all applicable regulations nor under an enforceable compliance plan.

COUNT III

(Failure to Process Severstal's Application as a New Permit Application)

125. Appellants restate and incorporate the preceding allegations.

126. Severstal's application sought a permit to modify its operations or processes, or modify or install equipment, including air pollution control equipment.

127. The CAA and Michigan SIP require MDEQ to process an application seeking to modify operations or processes, or modify or install equipment, as an application for a new permit.

128. MDEQ did not process PTI No. 182-05C as a new permit under the CAA and Michigan SIP.

129. MDEQ lacks authority to issue a permit, except by processing it as a new permit application, subject to all current regulations and standards in the CAA and Michigan SIP.

130. Michigan violated the CAA and Michigan air quality statutes, when it issued PTI No. 182-05C without processing it as new permit application under the CAA and Michigan SIP.

131. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C without processing it as a new permit application under the CAA and Michigan SIP.

COUNT IV

(Erroneously Processing PTI No. 182-05C as a Permit to Relax Emissions Standards)

132. Appellants restate and incorporate the preceding allegations.

133. Severstal's application sought to relax emissions limits in PTI No. 182-05B.

134. Severstal is responsible for all errors and mistaken assumptions upon which the emissions limits in PTI No. 182-05B were based.

135. The CAA and Michigan SIP provide limited opportunity to relax emissions limits in an existing permit.

136. Severstal does not meet the requirements to authorize MDEQ to relax the emissions limits in PTI No. 182-05B.

137. Even if Severstal's application met the prerequisites for seeking a permit to relax emissions limits, MDEQ failed to apply all current PSD and NSR provisions and technology standards to Severstal's proposed relaxed emissions limits:

a. MDEQ failed to apply current CAA attainment designations, provisions, and regulations;

b. MDEQ failed to determine the net emissions increases resulting from the relaxed emissions limits; and

c. MDEQ failed to apply current BACT, LAER, MACT, and T-BACT technology and standards to the sources of emissions increases.

138. MDEQ lacks authority to relax the emissions limits in an existing permit, except by applying all current PSD and NNSR designations, provisions, and technology standards to the proposed changes.

139. MDEQ violated the CAA and Michigan air quality statutes when it issued PTI No. 182-05C and relaxed the emissions limits in PTI No. 182-05B, without applying all current PSD and NNSR designations, provisions, and technology standards to the proposed changes.

140. MDEQ's decision to issue the permit was arbitrary and capricious and not supported by substantial evidence, because it relaxed the emissions limits in PTI No. 182-05B,

without applying all current PSD and NNSR designations, provisions, and technology standards to the proposed changes.

COUNT V

(Erroneous Application of CAA Attainment Designations)

141. Appellants restate and incorporate the preceding allegations.

142. MDEQ processed Severstal's application as if it were 2005, and Wayne County were still designated in "attainment" for SO_2.

143. As a result of processing Severstal's application as if it were 2005 and Wayne County were in attainment for SO_2, MDEQ did not, among other requirements, impose LAER standards, require Severstal to obtain SO_2 offsets that meet the regulatory standards, require Severstal to provide compliance certification, and consider alternatives to raising the emission limits.

144. At the same time, MDEQ failed to process Severstal's application in accordance with Wayne County's designated non-attainment for $PM_{2.5}$ status, from January 2005 until August 2013, and did not, among other requirements, impose LAER standards for $PM_{2.5}$ and SO_2 (a $PM_{2.5}$ precursor), require proper $PM_{2.5}$ and SO_2 offsets, require Severstal to provide compliance certification, and consider alternatives to raising the emissions limits.

145. The CAA and Michigan SIP require MDEQ to apply all current CAA attainment designations, and all attendant NNSR provisions, to all permit applications.

146. MDEQ has no authority to issue PTI No. 182-05C without applying all current CAA attainment designations and all attendant NNSR provisions.

147. MDEQ violated the CAA and Michigan SIP when it issued PTI No. 182-05C without applying all current CAA attainment designations and attendant NNSR provisions.

148. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C without applying all current CAA attainment designations and attendant NNSR provisions.

COUNT VI

(Failure to Apply Post-2005 CAA Regulations and Standards)

149. Appellants restate and incorporate the preceding allegations.

150. MDEQ processed Severstal's application as if it were 2005, and ignored CAA and Michigan SIP provisions adopted since 2005.

151. Since 2005, there are new federal CAA regulations applicable to CAA permit that: require MDEQ to regulate $PM_{2.5}$ emissions directly (rather than using PM10 as a surrogate); require MDEQ to treat SO_2 as a precursor for $PM_{2.5}$; update the ambient air NO_2 and SO_2 standards; require MDEQ to regulate greenhouse gas emissions; and impose other requirements and standards on CAA permits.

152. Since 2005, there are new or updated federal and state BACT, LAER, MACT, and T-BACT technologies, standards, costs, and factors applicable to the control of particulates (including condensable particulates), SO_2, CO, Mn and Pb from integrated iron and steel facilities' emissions sources.

153. MDEQ failed to apply to Severstal's application CAA regulations and technology standards adopted or updated since 2005.

154. The CAA and Michigan SIP require MDEQ to apply current CAA regulations and standards to all permit applications.

155. MDEQ has no authority to review and issue a permit application according to the CAA regulations and standards only as they existed in 2005.

156. MDEQ violated the CAA and Michigan SIP when it issued PTI No. 182-05C without applying all current CAA regulations and standards.

157. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C without applying all current CAA regulations and standards.

COUNT VII

(Error to Use 2001-2002 Baseline Emissions)

158. Appellants restate and incorporate the preceding allegations.

159. MDEQ processed Severstal's application as if it were 2005, and determined the net change in emissions resulting against baseline historic emissions from 2001 and 2002.

160. By using 2001 and 2002 at the baseline emissions period, MDEQ allowed Severstal to re-credit emissions reductions achieved in 2007, when the C-Blast Furnace and Basic Oxygen Furnace baghouses were installed.

161. By using 2001 and 2002 at the baseline emissions period, MDEQ allowed Severstal to capitalize on the historic emissions from the B-Blast Furnace; re-credit a baghouse authorized in 2006 for the B-Blast Furnace, which was never actually installed, and speculate about future emissions at the B-Blast Furnace.

162. By using 2001 and 2002 as the baseline emissions period, MDEQ allowed Severstal to "net out" of PSD, NNSR and toxics regulations and applicability for multiple pollutants.

163. By using 2001 and 2002 as the baseline emissions period, MDEQ failed to apply relevant and applicable control standards (BACT, LAER, MACT, and T-BACT) and other requirements to emissions increases permitted by PTI No. 182-05C.

164. The CAA and Michigan SIP do not authorize MDEQ to use 2001 and 2002 as the baseline emissions period to determine the net emissions increases for PTI 182-05C.

165. MDEQ acted outside of its authority when it issued PTI No. 182-05C using the 2001 and 2002 baseline emissions period to determine the net emissions increases.

166. MDEQ violated the CAA and Michigan SIP when it issued PTI No. 182-05C using the 2001 and 2002 baseline emissions period to determine the net emissions increases.

167. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C using the 2001 and 2002 baseline emissions period to determine the net emissions increases.

COUNT VIII

(Error to Permit Changes Outside the Scope of PTI No. 182-05B)

168. Appellants restate and incorporate the preceding allegations.

169. Although PTI No. 182-05C is termed an "amendment" to PTI No. 182-05B, it includes emissions increases resulting from changes and errors entirely unrelated to the modifications authorized by the 2007-issued PTI No. 182-05B.

170. PTI No. 182-05C authorizes CO emissions increases at the Basic Oxygen Furnace ESP, which are not the result of process changes at the C-Blast Furnace or installation of the secondary baghouse at the Basic Oxygen Furnace in 2007. Instead, the increased CO emissions from the Basic Oxygen Furnace ESP result from Severstal's failure, until 2009, to recognize that CO emissions were generated during the oxygen blow portion of steelmaking heats.

171. PTI No. 182-05C authorizes Mn (manganese) and Pb (lead) emissions increases at the desulfurization baghouse, which was not modified by the process changes at the C-Blast Furnace or installation of the secondary baghouse at the Basic Oxygen Furnace in 2007. Instead, the increased Mn and Pb emissions from the desulfurization baghouse result from Severstal's refusal, until 2009, to recognize that condensable particulates, with attached metals, were not captured by the system.

172. PTI No. 182-05C retroactively authorizes the installation, in 2007, of six emergency engines, which were independent of the process changes at the C-Blast Furnace or installation of the secondary baghouse at the Basic Oxygen Furnace.

173. By permitting these and other changes through an "amendment" to PTI No. 182-05B, MDEQ failed to apply current CAA and Michigan SIP provisions and standards to these changes:

a. MDEQ failed to apply current CAA attainment designations, provisions, and regulations to these changes;

b. MDEQ failed to determine the net emissions increases resulting from these changes; and

c. MDEQ failed to apply current BACT, LAER, MACT, and T-BACT technologies and standards to these sources of emissions increases.

174. MDEQ violated the CAA and Michigan SIP when it included in PTI No. 182-05C changes not related to or caused by, and outside the scope of modifications authorized by, PTI No. 182-05B.

175. MDEQ acted outside of its authority when it included in PTI No. 182-05C modifications not related to or caused by, and outside the scope of modifications authorized by, PTI No. 182-05B.

176. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it included in PTI No. 182-05C modifications not related to or caused by, and outside the scope of modifications authorized by, PTI No. 182-05B.

COUNT IX

(Error to Raise Emissions Limits above Stack Test Emissions Results)

177. Appellants restate and incorporate the preceding allegations.

178. Severstal's stack testing demonstrates that, when operating at recent historical operating conditions, it meets many of the emissions limits contained in PTI No. 182-05B.

179. Severstal's stack testing demonstrates that, for some emissions sources, when operating at maximum routine operating conditions, it exceeds some of the emissions limits contained in PTI No. 182-05B, by a wide range of margins, from minor to substantial exceedances.

180. MDEQ issued a permit to Severstal that substantially raises the emissions limits for multiple emissions sources, including both emissions sources that operate within the emissions limits in PTI No. 182-05B, and emissions sources that exceed emissions limits in PTI No. 182-05B.

181. MDEQ issued a permit to Severstal that far exceeds its emissions levels during recent historical operating conditions.

182. PTI No. 182-05C would allow Severstal to emit greater amounts of air pollutants than the company has been emitting, based upon its own stack tests.

183. MDEQ violated the CAA and Michigan SIP when it raised Severstal's allowable emissions limits in PTI No. 182-05C to levels in excess of emissions levels achieved during stack testing.

184. MDEQ acted outside of its authority when it raised Severstal's allowable emissions limits in PTI No. 182-05C to levels in excess of emissions levels achieved during stack testing.

185. MDEQ's decision to issue PTI No. 182-05C was arbitrary and capricious and not supported by substantial evidence, when it raised Severstal's allowable emissions limits to levels in excess of those achieved during stack testing.

COUNT X

(Error to include Emissions from the B-Blast Furnace in Netting Analysis)

186. Appellants restate and incorporate the preceding allegations.

187. The B-Blast Furnace has not been operational since January 2008, and has no baghouse to control emissions.

188. MDEQ processed Severstal's application as though the B-Blast Furnace had been, and remained, an operational emissions unit and has a baghouse to control emissions.

189. Because Severstal failed to install the baghouse within 18 months of the issuance of PTI No. 182-05B, Severstal lacks authority to install a baghouse on the B-Blast Furnace.

190. The Michigan SIP prohibits MDEQ from including in a permit the emissions from a process or process equipment that has been physically removed.

191. MDEQ treated the B-Blast Furnace as a substantial source of baseline emissions, though it has not operated in over seven years.

192. MDEQ treated future B-Blast Furnace emissions as though they are controlled by a baghouse, though there is no baghouse, nor lawful authority to install a baghouse, on the B-Blast Furnace.

193. MDEQ allowed Severstal to avoid PSD and NNSR applicability in part by netting or reallocating Severstal's future increased emissions sought in the new application against control efficiencies achieved by a B-Blast Furnace baghouse, which does not exist.

194. MDEQ violated the CAA and Michigan SIP when it included baseline and future emissions from the B-Blast Furnace in the netting analysis for PTI No. 182-05C.

195. MDEQ acted outside of its authority when it included baseline and future emissions from the B-Blast Furnace in the netting analysis for PTI No. 182-05C.

196. MDEQ was arbitrary and capricious when it included baseline and future emissions from the B-Blast Furnace in the netting analysis for PTI No. 182-05C.

COUNT XI

(Error to Include Provisions Related to the Future Operation of the B-Blast Furnace)

197. Appellants restate and incorporate the preceding allegations.

198. PTI No. 182-05B, issued in 2006, authorized Severstal to operate the B-Blast Furnace, and required Severstal to install a baghouse on the B-Blast Furnace.

199. The B-Blast Furnace was physically destroyed and removed from operation following its catastrophic destruction on January 5, 2008, and Severstal never installed a baghouse on the B-Blast Furnace.

200. The Michigan SIP provides that a permit shall become void upon the physical removal of a process or process equipment.

201. The Michigan SIP provides that a permit becomes void if the installation of the equipment has not commenced within 18 months.

202. The CAA requires a facility to obtain a new permit before making any modifications at a source or facility, if the modification will increase existing pollution or result in the emission of any new pollutant.

203. The Michigan SIP requires a facility to obtain a permit before it may "install, construct, reconstruct, relocate, alter, or modify any process or process equipment."

204. Operating the B-Blast Furnace in the future will require non-routine physical changes that will result in significant emissions increases.

205. Operating the B-Blast Furnace in the future will constitute either operation (start-up) of a new source, or the operation after a major modification, both of which require a new permit issued under then-current PSD and NNSR designations, provisions, and standards.

206. In PTI No. 182-05C, MDEQ did not void the provisions in PTI No. 182-05B applicable to the operation of the B-Blast Furnace, but instead included emissions limits and operating parameters for the B-Blast Furnace.

207. MDEQ did not apply current PSD and NNSR designations, provisions, and standards to the future start-up or major modification of the B-Blast Furnace.

208. MDEQ violated the CAA and Michigan SIP when, rather than void the provisions in PTI No. 182-05B applicable to the B-Blast Furnace, it included operating provisions for the B-Blast Furnace in PTI No. 182-05C.

209. MDEQ acted outside of its authority when it failed to void the provisions in PTI No. 182-05B applicable to the B-Blast Furnace, and included operating provisions for the B-Blast Furnace in PTI No. 182-05C.

210. MDEQ was arbitrary and capricious, and its decision was contrary to substantial evidence, when it failed to void the provisions in PTI No. 182-05B applicable to the B-Blast Furnace, and included operating provisions for the B-Blast Furnace in PTI No. 182-05C.

COUNT XII

(Error to "Re-Allocate" Emissions Between Emissions Sources)

211. Appellants restate and incorporate the preceding allegations.

212. In processing PTI No. 182-05C, MDEQ allowed Severstal to "re-allocate" SO_2 emissions increases from the C-Blast Furnace baghouse against SO_2 emissions reductions from the C-Blast Furnace Stove and the B-Blast Furnace.

213. Severstal has not achieved actual, contemporaneous, or otherwise creditable SO_2 emissions reductions from the C-Blast Furnace Stove or the B-Blast Furnace.

214. As a result of "reallocating" SO_2 emissions increases at the C-Blast Furnace baghouse against SO_2 emissions "reductions" from the C-Blast Furnace Stove and B-Blast Furnace, MDEQ allowed Severstal to avoid application of LAER and other NNSR regulations resulting from SO_2 emissions increases at the C-Blast Furnace baghouse.

215. In processing PTI No. 182-05C, MDEQ allowed Severstal to "re-allocate" mercury emissions increases from the C-Blast Furnace Stove against mercury emissions reductions from the Basic Oxygen Furnace baghouse and ESP.

216. Severstal has not achieved actual, contemporaneous, or otherwise creditable mercury emissions reductions from the Basic Oxygen Furnace baghouse and ESP.

217. As a result of "reallocating" mercury emissions increases at the C-Blast Furnace Stove against mercury emissions from Basic Oxygen Furnace baghouse and ESP, MDEQ allowed Severstal to avoid application of MACT and T-BACT and other toxics regulations resulting from mercury emissions increases at the C-Blast Furnace Stove.

218. MDEQ violated the CAA and Michigan SIP when it "re-allocated" SO_2 and mercury emissions to avoid application of NNSR and MACT/T-BACT in the processing of PTI No. 182-05C.

219. MDEQ acted outside of its authority when it "re-allocated" SO_2 and mercury emissions to avoid application of NNSR and MACT/T-BACT in the processing of in PTI No. 182-05C.

220. MDEQ was arbitrary and capricious, and its decision was contrary to substantial evidence, when it "re-allocated" SO_2 and mercury emissions to avoid application of NNSR and MACT/T-BACT in the processing of PTI No. 182-05C.

COUNT XIII

(Failure to include Enforceable SO_2 Emissions Limit)

221. Appellants restate and incorporate the preceding allegations.

222. In addition to "re-allocating" SO_2 emissions increases from the C-Blast Furnace baghouse against reductions from the C-Blast Furnace Stove and the B-Blast Furnace, MDEQ also imposed a new total combined SO_2 emissions limit for the C-Blast Furnace Stove and baghouse.

223. The total combined SO_2 emissions limit for the C-Blast Furnace Stove and Baghouse (271.4 lb/hr) is less than the sum of SO_2 emissions limits for each the C-Blast Furnace Stove and baghouse combined (373.25 lb/hr).

224. Under the Michigan SIP, when an emission limit does not reflect the maximum emissions of the process equipment operating at full design capacity, then it is not enforceable as a practical matter unless it includes production or operations limit provisions that meet the Michigan SIP regulations.

225. The total combined SO_2 emissions limit in PTI No. 182-05C for the C-Blast Furnace Stove and baghouse does not reflect the maximum emissions of the equipment operating at full design capacity.

226. In PTI No. 182-05C, MDEQ did not include production or operations limits that ensure the total combined SO_2 emissions limit for the C-Blast Furnace Stove and baghouse is enforceable as a practical matter.

227. As a result of capping total combined SO_2 emissions from the C-Blast Furnace Stove and baghouse, MDEQ allowed Severstal to avoid application of NNSR resulting from SO_2 emissions increases (for SO_2 emissions, and SO_2 as a $PM_{2.5}$ precursor) at the C-Blast Furnace baghouse.

228. MDEQ violated the CAA and Michigan SIP when it included in PTI 182-05C a total combined SO_2 emissions limit for the C-Blast Furnace Stove and baghouse that is not enforceable as a practical matter.

229. MDEQ acted outside of its authority when it included in PTI 182-05C a total combined SO_2 emissions limit for the C-Blast Furnace Stove and baghouse that is not enforceable as a practical matter.

230. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it included in PTI 182-05C a total combined SO_2 emissions limit for the C-Blast Furnace Stove and baghouse that is not enforceable as a practical matter.

COUNT XIV

(Error to Make Multiple Other Concessions to Severstal)

231. Appellants restate and incorporate the preceding allegations.

232. In processing PTI No. 182-05C, MDEQ erroneously applied the CAA and Michigan SIP with unwarranted deference towards Severstal, as described throughout this Claim of Appeal, and further including, without limit, as follows:

a. MDEQ changed the permitted operating efficiency of the Basic Oxygen Furnace Baghouse from 95% in PTI No. 182-05B, to 98% in PTI No. 182-05C, without sufficient and proper evidence that the baghouse currently operates, and can continue to operate, at 98% efficiency;

b. MDEQ assumed, without supporting evidence, that air emissions control equipment, including the C-Blast Furnace baghouse, Basic Oxygen Furnace baghouse, and Basic Oxygen Furnace ESP, will operate at least as efficiently at

higher rates of production as Severstal demonstrated during stack testing performed at lower rates of production;

c. MDEQ treated Severstal's Basic Oxygen Furnace as "a grandfathered piece of equipment," with the result that MDEQ did not subject CO emissions increases at the Basic Oxygen Furnace to BACT review and controls;

d. MDEQ concluded, contrary to substantial evidence, that Severstal will operate and maintain emissions control equipment in compliance with all applicable standards and regulations, though Severstal has demonstrated continued failure to operate and maintain equipment in compliance with applicable standards and regulations;

e. MDEQ failed to regulate, or impose emission limitations on, other known pollutants from Severstal, including but not limited to hazardous metals such as nickel and chromium;

f. MDEQ raised emissions limits at the Basic Oxygen Furnace ESP and desulfurization baghouses to reflect continuous operations, rather than the current 20 and 40 minute batch operations, without imposing operational restrictions to require batch processing, which may result in increased (continuous) operations;

g. MDEQ "combined and capped" total annual emissions from the C Blast Furnace with emissions from the shuttered B Blast furnace, allowing Severstal to unlawfully credit emissions reductions from shuttered B Blast Furnace against emissions increases at the C Blast Furnace and "net out" of PSD and NNSR applicability for multiple pollutants; and

h. MDEQ delayed action on Severstal's permit in order to avoid imminent permit denial, delay public notice of Severstal's violations, and give Severstal additional time to refine its proposed "corrected" permit.

233. MDEQ made these and many other concessions to Severstal, despite noticing Severstal for tens of thousands of instances of violations related to the maintenance and operation of its emission control equipment over the preceding five years, and despite requesting the Attorney General join the U.S. Department of Justice in a federal enforcement proceeding against Severstal related to these violations.

234. MDEQ violated the CAA and Michigan SIP when it issued PTI No. 182-05C to Severstal based on multiple erroneous and unsupported assumptions and conclusions.

235. MDEQ acted outside of its authority when it issued PTI No. 182-05C to Severstal based on multiple erroneous and unsupported assumptions and conclusions.

236. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C to Severstal based on multiple erroneous and unsupported assumptions and conclusions.

COUNT XV

(Error to Execute "Extension Agreement")

237. Appellants restate and incorporate the preceding allegations.

238. Prior to October 28, 2013, when Rule 206 was amended, MDEQ was required to act on a permit application within 120 days of receipt of application.

239. Prior to October 28, 2013, when Rule 206 was amended, MDEQ lacked authority to execute any "agreements" extending the period in which to act upon a permit application.

240. Under the Michigan SIP, MDEQ was required to act on Severstal's permit application by August 6, 2012, which was 120 days after the date (April 6, 2012) MDEQ had received all information required under the Michigan rule (Mich Admin R 336.1203) for a new permit.

241. Prior to entering the "Extension Agreement," MDEQ concluded Severstal could not operate in compliance with Michigan air regulations and other provision in Rule 207, and therefore MDEQ was required to deny Severstal's permit application under Rule 207.

242. Denial of Severstal's permit under Rule 207 would have triggered public notice and a public hearing related Severstal's application.

243. On February 1, 2013, the date MDEQ and Severstal executed an "Extension Agreement," MDEQ lacked authority to extend the 120 day deadline to act upon a complete application.

244. The February 1, 2013, "Extension Agreement" purported to extend, by mutual agreement between Severstal and MDEQ, the timeframe from MDEQ to act upon Severstal's application.

245. The result of the "Extension Agreement" was further delay (until February 2014) of notice to the affected public about Severstal's violations and excess emissions, and further time than lawfully permitted for Severstal to convince MDEQ of its entitlement to a new permit.

246. MDEQ violated Michigan rules when it failed to deny, under Rule 207, Severstal's permit application 120 days after it declared the application technically complete.

247. MDEQ acted without authority when it entered an "Extension Agreement" with Severstal, extending the timeframe to act upon a permit application that MDEQ already deemed complete.

248. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when, rather than deny Severstal's permit application, it instead entered an "Extension Agreement" with Severstal.

COUNT XVI

(Failure to Fully Consider the Adverse Social Impacts of PTI No. 182-05C)

249. Appellants restate and incorporate the preceding allegations.

250. MDEQ is required to examine, consider, and address the human health and environmental effects of the issuance of a CAA permit on all communities, including, in particular, minority and low-income "environmental justice" communities who are often disproportionately and adversely affected by air pollution.

251. Even absent increased air emissions resulting from the issuance of PTI No. 182-05C, residents of the South End neighborhood of Dearborn and other neighborhoods of Southwest Detroit (including the infamously polluted 48217 zip code) already suffer with some of the worst air quality in our nation and have been proven to have disproportionately higher rates of asthma and other health concerns, caused in substantial part by poor air quality in these neighborhoods.

252. The emissions increases authorized by PTI No. 182-05C will have a disproportionate adverse impact on the South End neighborhood of Dearborn and other neighborhoods of Southwest Detroit, including, but not limited to, the 48217 zip code.

253. In processing the application for PTI No. 182-05C, MDEQ exercised all opportunities for discretion to favor, accommodate, and credit Severstal, at the expense of increased air emissions and further deteriorating air quality in the South End neighborhood of

Dearborn and other disproportionately affected neighborhoods of Southwest Detroit, including, but not limited to, the 48217 zip code.

254. MDEQ failed to adequately consider the adverse public health, social welfare, and environmental costs and impacts of the emissions increases resulting from PTI No. 182-05C on the South End neighborhood of Dearborn and other disproportionately affected neighborhoods of Southwest Detroit, including, but not limited to, the 48217 zip code.

255. MDEQ failed to adequately consider alternatives that would have resulted in lesser emissions increases than the emissions increases authorized under PTI No. 182-05C, including, without limit, pollution control equipment, reduced operations, and other alternatives.

256. MDEQ violated federal and state law when it issued PTI No. 182-05C and authorized Severstal to increase emissions that will disproportionately impact the South End neighborhood of Dearborn and other neighborhoods of Southwest Detroit, including, but not limited to, the 48217 zip code.

257. MDEQ was arbitrary and capricious, and its decision was not supported by substantial evidence, when it issued PTI No. 182-05C and authorized Severstal to increase emissions that will disproportionately impact the South End neighborhood of Dearborn and other neighborhoods of Southwest Detroit, including, but not limited to, the 48217 zip code.

COUNT XVII

(Due Process: Issuance Inappropriately Impacted by MEDC's involvement)

258. Appellants restate and incorporate the preceding allegations.

259. The members of Appellants' organizations, whose health, property, and well-being are adversely impacted by emissions from Severstal, had a right to a fair permit review process and an impartial decision maker.

260. MDEQ Air Quality Division Chief was the decision-maker on PTI No. 182-05C.

261. The permit review process in this case was subject to inappropriate and undue influence by the MEDC.

262. MEDC's inappropriate and undue influence resulted in MDEQ changing its prior positions on key issues, to the benefit of Severstal and the detriment of the health, property, and well-being of the members of Appellants' organizations.

263. The MDEQ permit decision-maker's comments in the newspaper prior to the public hearing strongly suggested that he had already decided to issue the permit prior to the public hearing and the close of the public comment period.

264. MEDC's inappropriate and undue influence, and the resulting partiality and unfairness of the permit review process and decision, deprived Appellants and their members of their due process rights under the United States and Michigan Constitutions, as well as and their right to fair and just treatment in executive hearings under the Michigan Constitution, and resulted in a decision that was based upon improper procedure and contrary to law.

REQUEST FOR RELIEF

For the reasons stated above, Appellants respectfully request that the Court:

a. Declare that MDEQ lacks authority to issue the Permit;

b. Declare that MDEQ's decision to issue the Permit was contrary to law;

c. Declare that MDEQ's decision to issue the Permit was not based upon a correct evaluation of the applicable control technologies and standards;

d. Declare that MDEQ's decision to issue the Permit, and the emissions limits set in the Permit, are arbitrary and capricious, and not supported by substantial evidence

e. Declare the "Extension Agreement" executed between MDEQ and Severstal is unauthorized, void and unlawful;

f. Declare that MDEQ failed to discharge its obligations with respect to consideration of social costs, public health, and Environmental Justice in issuing the Permit;

g. Declare that the MDEQ decision to issue the Permit was made in a process that was unfair, unjust, improper, and characterized by the undue influence of Severstal and the Michigan Economic Development Corporation;

h. Vacate the Permit;

i. Remand this matter to MDEQ;

j. Grant Appellants their costs and attorney fees as authorized by law; and

k. Grant Appellants such other relief as may be required under the circumstances, including all relief that is reasonable, equitable, and just.

Respectfully Submitted:

OLSON, BZDOK & HOWARD, P.C.
Attorneys for Appellant SDEIA

Date: July 10, 2014

/s/ Christopher M. Bzdok
By:_____
Christopher M. Bzdok (P35094)
Emerson Hilton (P76363)

LAW OFFICE OF TRACY JANE ANDREWS, PLLC
Co-Counsel for Appellant SDEIA

Date: July 10, 2014

By: */s/ Tracy Jane Andrews*
Tracy Jane Andrews (P67467)

Attorneys for Appellants DWEJ, OUCSD, and Sierra Club

Date: July 10, 2014

By: /s/ *Nicholas Schroeck*
Nicholas Schroeck (P70888)
Stephanie Karisny (P76529

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

May 12, 2014

PERMIT TO INSTALL
182-05C

ISSUED TO
Severstal Dearborn, Inc.

LOCATED AT
4001 Miller Road
Dearborn, Michigan

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
A8640

14-008887-AA
FILED IN MY OFFICE
WAYNE COUNTY CLERK
7/10/2014 3:03:27 PM
CATHY M. GARRETT

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **December 19, 2013**	
DATE PERMIT TO INSTALL APPROVED: **May 12, 2014**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

EXHIBIT 1

PERMIT TO INSTALL
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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than or equal to 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than or equal 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date/ Modification Date	Flexible Group ID
EUCOALHANDLING	Pulverized coal silo with two bin vent filters. Stack ID: NA	1-1-2008	NA
EUCOKESCRNBLDGDD	Coke screening building DD. Stack ID: SVCOKESCRNBLD	1-1-1950	NA
EUBFURNACE	This emission unit consists of the "B" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the "B" Blast Furnace, semi-clean bleeder, and a dirty gas bleeder. Stack ID: SVBFSTOVE SVBFBH	1-1-1922	FGB&CFURNACES
EUCFURNACE	This emission unit consists of the "C" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the "C" Blast Furnace, semi-clean bleeder, and two dirty gas bleeders. Stack ID: SVCFSTOVE SVCFBH	1-1-1948/ 10-01-2007	FGB&CFURNACES
EURELADLINGBOF	Reladling south and north - controlled by a movable hood and secondary baghouse. Stack ID: SVBOFBH	1-1-75	FGBOFSHOP
EUBOFDESULF	Desulfurization operation using lime and magnesium to remove sulfur and skimming of slag into a slag pot, all controlled by a movable hood to a baghouse. Stack ID: SVDESULFBH.	1-1-81	NA
EUDESULFWATERSTN	BOF desulfurization by-product material "desulf" watering station located at the south end of the BOF building. Levy digs the byproduct material with a front-end loader, and brings it to an open area for cooling and fugitive dust control using water spray. After thorough cooling, Levy loads the materials into trucks for processing off site. Stack ID: NA	4-17-95	NA

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date/ Modification Date	Flexible Group ID
EUBOF	Basic oxygen furnace (BOF) including charging, oxygen blowing, tapping and slag tapping. 2 vessels controlled by an electrostatic precipitator and a secondary emissions baghouse. Stack ID: SVBOFESP, SVBOFBH	1-1-64	FGBOFSHOP
EULADLEREFINE1	No. 1 Ladle refining facility controlled by a baghouse Stack ID: SVLADELREFINE1	1-1-90	NA
EULADLEREFINE2	No. 2 Ladle refining facility controlled by a baghouse. Stack ID: SVLADELREFINE2	1-1-95	NA
EUANNEALFURNACES	There are 52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building. Stack ID: NA	Hydrogen Nitrogen Annealing Furnaces 1935-1972 Hydrogen Annealing Furnaces 1988-1993	FGANNEALFURNACES
EUREHEATFURN1	Slab reheat furnace 1 located in the Hot Strip Mill Building Stack ID: SVHSMREHEAT1-S SVHSMREHEAT1-N	1-1-79	FGHSMFURNACES123
EUREHEATFURN2	Slab reheat furnace 2 located in the Hot Strip Mill Building Stack ID: SVHSMREHEAT2-S SVHSMREHEAT2-N	1-1-74	FGHSMFURNACES123
EUREHEATFURN3	Slab reheat furnace 3 located in the Hot Strip Mill Building Stack ID: SVHSMREHEAT3-S SVHSMREHEAT3-N	1-1-74	FGHSMFURNACES123
EU-ENGCBFTC	A 530 horsepower (hp) natural gas fired emergency engine manufactured in March 2007. Location: C BF Tuyere Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFTC	2007	FG-ENG2007>500
EU-ENGCBFHS	An 800 horsepower (hp) natural gas fired emergency engine manufactured in July 2007. Location: C BF Hearth/Stave Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFHS	2007	FG-ENG2007>500
EU-ENGCBFBS	A 250 horsepower (hp) natural gas fired emergency engine manufactured in May 2007. Location: C BF Bosh/Stave Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFBS	2007	FG-ENG2007<500

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date/ Modification Date	Flexible Group ID
EU-ENGWSAC	A 250 horsepower (hp) natural gas fired emergency engine manufactured in March 2007. Location: WSAC Spray Tower. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGWSAC	2007	FG-ENG2007<500
EU-ENGCBFDM	A 145 horsepower (hp) natural gas fired emergency engine manufactured in May 2007. Location: C BF Drill & Mud Gun. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFDM	2007	FG-ENG2007<500
EU-ENGCBFGS	A 95 horsepower (hp) natural gas fired emergency engine manufactured in February 2007. Location: C BF Gas Scrubber Engine. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFGS	2007	FG-ENG2007<500
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to:
EUCOALHANDLING

DESCRIPTION: Pulverized coal silo

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Two bin vent filters

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% opacity	6-minute average	EUCOALHANDLING	SC VI.1 SC VI.2	R 336.1301(1)(c)
2. PM	0.005 gr/dscf	Test Protocol*	EUCOALHANDLING	GC 13	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
3. PM10	0.005 gr/dscf	Test Protocol*	EUCOALHANDLING	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. PM2.5	0.005 gr/dscf	Test Protocol*	EUCOALHANDLING	GC 13	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
*Test Protocol specifies averaging time					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUCOALHANDLING unless both bin vent filters are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1301(c), R 336.1331(1)(c), R 336.2801(ee), R 336.2802(4), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform a Method 9 certified visible emission observation of each bin vent filter at least once a month during processing activity. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301(1)(c), R 336.1910)**

2. Permittee shall periodically inspect each bin vent filter to determine the operational and physical condition of each bin vent filter at least semiannually, and immediately after observing visible emissions in excess of the applicable limitation. Each bin vent filter shall be inspected as necessary immediately after a malfunction or failure of the bin vent filter or the process equipment to determine the reason for the malfunction or failure. Written records of each inspection and corrective action taken, if any, shall be maintained. **(R 336.1301(1)(c), R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
EUCOKESCRNBLDGDD

DESCRIPTION Coke screening building DD

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	5%	6-minute average	EUCOKESCRNBLDGDD	SC VI.1	R336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the EUCOKESCRNBLDGDD unless the baghouse is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1301(1)(c), R 336.1331(1)(c), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. The permittee shall conduct visible emission readings by a certified Method 9 observer of visible emissions from the coke screening building baghouse stack at least once a month during coke screening activities. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action. **(R 336.1301(1)(c), R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCOKESCRNBLD	36	82	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENT(S)

1. The Coke Screening Building DD shall be evacuated through a baghouse. **(SIP No. 30-1993, Exhibit A, Section 5(B), Paragraphs (1) and (2))**

2. All coke handling conveyors shall be totally enclosed or covered with a 180 degree cover. **(SIP No. 30-1993, Exhibit A, Section 5(F), Paragraph (1))**

The following conditions apply to:
EUBFURNACE

DESCRIPTION: This emission unit consists of the "B" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the "B" Blast Furnace, semi-clean bleeder, and a dirty gas bleeder.

Flexible Group ID: FGB&CFURNACES

POLLUTION CONTROL EQUIPMENT: B Blast furnace is controlled by a baghouse. Stoves have Low-NOx technology; mechanical collector and venturi scrubber for blast furnace gas pre-cleaning.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity	6-minute average	EUBFURNACE Baghouse stack	SC V.8 SC VI.2	R 336.1361
2. Visible Emissions	20% Opacity	6-minute average	EUBFURNACE Secondary emissions exiting any opening	SC V.1 SC V.2 SC V.4 SC V.6	40 CFR 63.7790(a)
3. Visible Emissions	20% Opacity	6-minute average	EUBFURNACE Roof monitors	SC V.8 SC VI.3	R 336.1358
4. PM	0.003 gr/dscf	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1331(1)(c) R 336.2802(4) 40 CFR 52.21 (a)(2)
5. PM	0.01 gr/dscf	Test Protocol*	EUBFURNACE Baghouse stack	SC V.1 SC V.2 SC V.4	40 CFR 63.7790(a)
6. PM	6.1 pph	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM	3.0 pph	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
8. PM10	7.6 pph	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM10	8.13 pph	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM2.5	7.6 pph	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
11. PM2.5	8.13 pph	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. SO_2	71.9 pph	Calendar day average	EUBFURNACE Baghouse stack	SC VI.6	R 336.2803, R 336.2804
13. SO_2	38.75 pph	Calendar day average	EUBFURNACE Stove stack	SC VI.6	R 336.2803 R 336.2804 R 336.2810
14. SO_2	77.8 pph	Calendar day average	EUBFURNACE (baghouse and stove stacks combined)	VI.6	R 336.2803, R 336.2804
15. SO_2	340 tpy	12-month rolling time period as determined at the end of each calendar month	EUBFURNACE (baghouse and stove stacks combined)	SC VI.29	R 336.2801(ee) R 336.2803, R 336.2804
16. CO	705 pph	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.2804
17. NOx	2.65 pph	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
18. NOx	36.0 pph	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803 R 336.2804
19. Mn	0.005 pph [1]	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1225
*Test protocol specifies averaging time					

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	3,200 tons per day	Calendar Day	EUBFURNACE	SC VI.25	R 336.1225 R 336.2803, R 336.2804
2. Natural Gas	40.2 MMSCF per year	12-month rolling time period basis as determined at the end of each calendar month	EUBFURNACE Limited natural gas suppression system	SC VI.26	R 336.1205(1)(a)&(b) R 336.1225 R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUBFURNACE shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EUBFURNACE. The plan shall include proper operating procedures to minimize bleeder emissions. **(R 336.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b) and 40 CFR 63.6(e)(3))**

3. The permittee shall not operate the stoves in EUBFURNACE unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. **(R 336.1911, R 336.1912, R 336.2802)**

4. The permittee shall develop site-specific monitoring plans for "B" Blast Furnace Casthouse Emission Control Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**

   a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
   b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
   c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
   d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
   e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); (**40 CFR 63.7831(a)(5))**
   f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i). **(40 CFR 63.7831(a)(6))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The EUBFURNACE shall not be operated unless the baghouse is installed, maintained and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), MDEQ Consent Order AQD No. 6-2006 Paragraph 10.B)**

2. Within 90 days prior to installation of the EUBFURNACE baghouse capture system, the permittee shall provide the design plans and a signed certification from the designer, certifying that the EUBFURNACE baghouse capture system is designed to achieve no less than 98% collection efficiency to the AQD District Supervisor. The permittee shall keep on file a copy of the EUBFURNACE baghouse capture system design plans and a signed certification from the designer, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for the EUBFURNACE emissions. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4), 40 CFR 52.21(a)(2), R 336.1911, R 336.2803, R 336.2804)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO_2 emissions and flow from each EUBFURNACE baghouse stack and stove stack on a continuous basis. **(R 336.2803, R 336.2804)**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage of the natural gas suppression system for EUBFURNACE. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the monthly natural gas usage rate and blast furnace gas usage rate of the stoves of EUBFURNACE. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2902(2), 40 CFR 51 (Appendix S))**

6. The permittee shall not operate EUBFURNACE with more than one taphole. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4))**

7. The permittee shall not operate the stove portion of EUBFURNACE unless the low-NOx technology is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

8. The permittee shall not fire blast furnace gas in the stoves of EUBFURNACE unless the scrubber and mechanical collector for pre-combustion gas cleaning are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2802(4), R 336.2801(ee), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days of startup of EUBFURNACE, the permittee shall conduct a performance test to demonstrate initial compliance with the applicable emission and opacity limitations of 40 CFR Part 63, Subpart FFFFF contained in this section. **(40 CFR 63.7820(a))**

2. Permittee shall conduct performance tests for particulate matter emissions and opacity at least once every five years. **(40 CFR 63.7821)**

3. The permittee shall sample for an integral number of furnace tapping operations to obtain at least one hour of sampling for each test run. **(40 CFR 63.7822(e))**

4. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**

5. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer of Method 9 visible emissions using Method 9. The performance test for visible emissions shall consist of 30 6-minute block averages during tapping of the furnace. **(40 CFR 63.7823(c)(1) and (2))**

6. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a))**

   a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a). **(40 CFR 63.7824(a)(1))**
   b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
   c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**
   d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**

7. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**

   a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
   b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
   c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

8. Within 180 days after start-up of EUBFURNACE, the permittee shall verify visible emissions, PM, PM10, PM2.5 and NOx emission rates from EUBFURNACE baghouse stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1361, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

9. Within 180 days after start-up of EUBFURNACE, the permittee shall verify PM, PM10, PM2.5, NOx, CO, and Mn emission rates from the stove stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. Testing must be performed at normal operating conditions for EUBFCESTOVE. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

10. Within 180 days after start-up of EUBBFCASTHOUSE, verification of the slag silt content, by testing at owner's expense, in accordance with Department requirements will be required. The permittee must complete the test once every quarter for four quarters and then annually, thereafter. The permittee shall submit a complete copy of the test results to the AQD within 60 days following the last date of the test (measured by the fourth quarterly sample for the first year). **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the blast furnace EUBFURNACE baghouse stack at least once every month during blast furnace processing activity for a minimum of one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1361)**

3. The permittee shall perform a Method 9 certified visible emission observation for the EUBFURNACE roof monitors at least once a week during casting for a minimum of one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1358)**

4. The permittee shall perform a non-certified visible emission observation for a minimum of 15 minutes for the EUBFURNACE bleeders at least once per month during planned blast furnace start up or shut down activities and a Method 9 certified visible emission observation of the EUBFURNACE bleeder at least once per quarter during planned blast furnace start up or shut down activities. Additionally, the permittee shall perform a Method 9 certified visible emission observation of the EUBFURNACE bleeder during all unplanned openings that last for more than thirty minutes. The permittee shall record each occurrence of bleeder stack opening, and the record shall include the date, start and stop time, and reason for each opening. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken including date, start time and stop time. **(R 336.1301)**

5. The permittee shall perform a Method 9 certified visible emission observation for the EUBFURNACE stove stack at least once a week during operation for a minimum of one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301)**

6. Within 180 days after start-up, the permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO_2 emissions and flow from EUBFURNACE baghouse stack and stove stack on a continuous basis. The permittee shall install and operate each CERM system to meet the timelines, requirements and reporting detailed in Appendix 1.3.1 and shall use the CERM data for determining compliance with Special Conditions SC I.12, I.13, and I.14. **(R 336.2803, R 336.2804)**

7. The permittee shall prepare and operate at all times according to a written operation and maintenance plans for “B” Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following:

    a. 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 must 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.
    b. 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.
    c. Operating limits for the “B” Blast Furnace Casthouse Emission Control System. The permittee must establish the operating limits according to the following requirements:.
        (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include 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.

(ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.

(iii) 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 the parameter was chosen, 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.

d. Corrective action procedures for the "B" Blast Furnace Casthouse Emission Control Baghouse. In the event a bag leak detection system alarm is triggered, corrective action must be initiated 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:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
(ii) Sealing off defective bags or filter media.
(iii) Replacing defective bags or filter media or otherwise repairing the control device.
(iv) Sealing off a defective baghouse compartment.
(v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
(vi) Shutting down the process producing the particulate emissions. **(40 CFR 63.7800(b))**

8. If applicable, the permittee shall monitor the hourly average actual volumetric flow rate through each separately ducted hood and the average hourly total volumetric flow rate at the inlet to the baghouse according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(a))**

9. If applicable, the permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the requirements of 40 CFR 63.7830(a) and 40 CFR 63.7831(e). **(40 CFR 63.7830(a))**

10. The permittee shall conduct inspections of the B Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements:

a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
c. Check the compressed air supply for pulse-jet baghouses each day.
d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**

11. If applicable, the permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b) and (d))**

    a. Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data; **(40 CFR 63.7831(b)(1))**
    b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
    c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**

12. Except as allowed in SC VI.14 permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**

    a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
    b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
    c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
    d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

13. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.14. **(40 CFR 63.7831(f)(6))**

14. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

15. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

16. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**

17. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**

18. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.14. **(40 CFR 63.7833(c)(1))**

19. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

20. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

21. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

22. The permittee shall maintain records of visible emissions observations in SC I.2 required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7842(c))**

23. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7842(d) and 40 CFR 63.7833(c)(4))**

24. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be kept offsite. **(40 CFR 63.7843(b) and (c))**

25. The permittee shall monitor and record, in a satisfactory manner, the iron production for EUBBCASTHOUSE on a daily, monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

26. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for the natural gas suppression system of EUBFURNACE on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

27. The permittee shall periodically inspect the installed stove burners of the EUBFURNACE stoves, and the venturi scrubber and mechanical collector for pre-combustion gas cleaning of the EUBFURNACE stove to determine its operational and physical condition at least once every 6 months. Written records of each inspection and corrective action taken, if any, shall be maintained. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2902(2), 40 CFR 51 (Appendix S), R 336.2803, R 336.2804)**

28. The permittee shall monitor and record, in a satisfactory manner, blast furnace gas and natural gas usage records for EUBFURNACE stove on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2902(2),40 CFR 51 (Appendix S), R 336.2803, R 336.2804)**

29. The permittee shall keep, in a satisfactory manner, hourly, calendar day average, monthly and previous 12-month rolling time period records of SO_2 emission calculations for EUBFURNACE, using actual emissions data obtained from the CERMS installed on the stove stack and the baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.2803, R 336.2804)**

30. The permittee shall maintain records of all information necessary to demonstrate compliance with the emission limits of this permit. ((**R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2804)**

31. The permittee shall perform preventative maintenance on the EUBBFCASTHOUES baghouse as specified in the operation and maintenance plan for the baghouse. **(40 CFR 63.7834(a)(2))**

VII. REPORTING

1. Permittee shall report the results of the initial performance test in the notification of compliance status. **(40 CFR 63.7820(a), 40 CFR 63.7825(c) and 40 CFR 63.7840(e))**

2. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

3. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

4. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**

5. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBBFROOFMON	NA	75.2	R 336.1225 R 336.2803, R 336.2804
2. SVBFBH	111	200	R 336.1225 R 336.2803, R 336.2804
3. SVBFSTOVE	99	190	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63 Subparts A and Subpart FFFFF)**

The following conditions apply to:
EUCFURNACE

DESCRIPTION: This emission unit consists of the "C" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas dust collector and venturi scrubber for removal of particulate from blast furnace gas generated by the "C" Blast Furnace, , a semi-clean bleeder, and two dirty gas bleeders.

Flexible Group ID: FGB&CFURNACES

POLLUTION CONTROL EQUIPMENT:
C Blast furnace is controlled by a baghouse. Stove for Low-NOx technology; mechanical collector and venturi scrubber for blast furnace gas precleaning

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity	6-minute average	EUCFURNACE Baghouse stack	SC V.7 SC VI.2	R 336.1361
2. Visible Emissions	20% Opacity	6-minute average	EUCFURNACE Secondary emissions exiting any opening	SC V.1 SC V.3 SC V.4 SC V.5	40 CFR 63.7790(a)
3. Visible Emissions	20% Opacity	6-minute average	EUCFURNACE Roof monitors	SC V.7 SC VI.3	R 336.1358
4. PM	0.003 gr/dscf	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
5. PM	0.01 gr/dscf	Test Protocol*	EUCFURNACE Baghouse stack	SC V.1	40 CFR 63.7790(a)
6. PM	13.87 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM	6.98 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
8. PM10	18.24 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM10	19.72 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM2.5	18.24 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
11. PM2.5	19.72 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. SO_2	179.65 pph	Calendar day average	EUCFURNACE Baghouse stack	SC VI.6	R 336.2810 R 336.2803, R 336.2804
13. SO_2	193.6 pph	Calendar day average	EUCFURNACE Stove stack	SC VI.6	R 336.2810 R 336.2803, R 336.2804
14. SO_2	271.4 pph	Calendar day average	EUCFURNACE Stove stack and baghouse stack combined	SC VI.6	R 336.2802 R 336.2803, R 336.2804 R 336.2810
15. SO_2	1,188 tpy	12-month rolling time period as determined at the end of each calendar month	EUCFURNACE (baghouse and stove stacks combined)	SC VI.29	R 336.2801(ee) R 336.2803, R 336.2804
16. CO	56.25 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.2810 R 336.2804
17. CO	1,756 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.2810 R 336.2804
18. NOx	5.46 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
19. NOx	106.3 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803 R 336.2804
20. VOC	9.92 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.1702
21. Pb	0.0077 pph	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.2804
22. Pb	0.011 pph	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.2804
23. Mn	0.042 pph [1]	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1225
24. Mn	0.012 pph [1]	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1225
25. Hg	0.003 pph [1]	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1225
*Test protocol specifies averaging time					

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	8,000 tons per day	Calendar Day	EUCFURNACE	SC VI.24	R 336.1225 R 336.2803, R 336.2804
2. Natural Gas	118.3 MMSCF per year	12-month rolling time period basis as determined at the end of each calendar month	EUCFURNACE Limited natural gas suppression system	SC VI.25	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUCFURNACE shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EUCFURNACE. The plan shall include proper operating procedures to minimize bleeder emissions. **(R 336.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b) and 40 CFR 63.6(e)(3))**

3. Within in 90 days of issuance of this permit, the permittee shall not operate the stoves in EUCFURNACE unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. **(R 336.1911, R 336.1912, R 336.2802)**

4. The permittee shall develop site-specific monitoring plans for “C” Blast Furnace Casthouse Emission Control Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**

    a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
    b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
    c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
    d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
    e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); (**40 CFR 63.7831(a)(5))**
    f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i). **(40 CFR 63.7831(a)(6))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The EUCFURNACE shall not be operated unless the baghouse is installed, maintained and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2804,, MDEQ Consent Order AQD No. 6-2006 Paragraph 10.B)**

2. The permittee shall keep on file a copy of the EUCFURNACE baghouse capture system design plans and a signed certification from the designer, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for the EUCFURNACE emissions. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.1911, R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804,)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO_2 emissions and flow from each EUCFURNACE baghouse stack and stove stack on a continuous basis. **(R 336.2803, R 336.2804, R 336.2810)**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of the natural gas suppression system for EUCFURNACE. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702, R 336.2801(ee), R 336.2802(4)R 336.2803, R 336.2804)**

5. The permittee shall not operate EUCFURNACE with more than two tapholes. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4))**

6. The permittee shall not operate the stove of EUCFURNACE unless the low-NOx technology is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

7. The permittee shall not fire blast furnace gas in the stove of EUCFURNACE unless the venturi scrubber and mechanical collector for pre-combustion gas cleaning are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4))R 336.2803, R 336.2804)**

8. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of the stoves. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

9. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of the stoves. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), 40 CFR 51 (Appendix S), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall conduct performance tests for particulate matter emissions and opacity at least once every five years. **(40 CFR 63.7821)**

2. The permittee shall sample for an integral number of furnace tapping operations to obtain at least one hour of sampling for each test run. **(40 CFR 63.7822(e))**

3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**

4. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer of Method 9 visible emissions using Method 9. The performance test for visible emissions shall consist of 30 6-minute block averages during tapping of the furnace. **(40 CFR 63.7823(c)(1) and (2))**

5. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a)**

   a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a). **(40 CFR 63.7824(a)(1)**
   b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
   c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**
   d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**

6. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**

   a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
   b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
   c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

7. Within three years of the issuance of this permit, the permittee shall verify visible emissions, PM, PM10, PM2.5, NOx, VOC, Pb, and Mn emission rates from EUCFURNACE baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb and Mn dust concentrations in the EUCFURNACE baghouse hoppers. Subsequent Pb and Mn sampling of the baghouse dust is not required. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including baghouse dust analysis for Mn and Pb, to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1301, R 336.1361, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

8. Within three years of the issuance of this permit, the permittee shall verify PM, PM10, PM2.5, NOx, CO, Pb, Mn, and total Hg emission rates from the EUCFURNACE stove stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. Testing must be performed at normal operating conditions for EUCFCESTOVE. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

9. Within 180 days after issuance of this permit EUCFURNACE, verification of the slag silt content, by testing at owner's expense, in accordance with Department requirements will be required. The permittee must complete the test once every quarter for four quarters and then annually, thereafter. The permittee shall submit a complete copy of the test results to the AQD within 60 days following the last date of the test (measured by the fourth quarterly sample for the first year). **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)**

2. The permittee shall perform a Method 9 certified visible emission observation for the blast furnace EUCFURNACE baghouse stack at least once every month during blast furnace processing activity for a minimum of one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1361)**

3. The permittee shall perform a Method 9 certified visible emission observation for the EUCFURNACE roof monitors at least once a week during casting for a minimum of least one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1358)**

4. The permittee shall perform a non-certified visible emission observation for a minimum of 15 minutes for the EUCFURNACE bleeders at least once per month during planned blast furnace start up or shut down activities and a Method 9 certified visible emission observation of the EUCFURNACE bleeder at least once per quarter during planned blast furnace start up or shut down activities. Additionally, the permittee shall perform a Method 9 certified visible emission observation of the EUCFURNACE bleeder during all unplanned openings that last for more than thirty minutes. The permittee shall record each occurrence of bleeder stack opening, and the record shall include the date, start and stop time, and reason for each opening. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken including date, start time and stop time. **(R 336.1301)**

5. The permittee shall perform a Method 9 certified visible emission observation for the EUCFURNACE stove stack at least once a week during operation for a minimum of at least one hour. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301)**

6. Within 180 days of the issuance of this permit, the permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO_2 emissions and flow from EUCFURNACE baghouse stack and stove stack on a continuous basis. The permittee shall install and operate each CERM system to meet the timelines, requirements and reporting detailed in Appendix 1.3.2 and shall use the CERM data for determining compliance with Special Conditions SC I.12, I.13, and I.14. **(R 336.2810, R 336.2803, R 336.2804)**

7. The permittee shall prepare and operate at all times according to a written operation and maintenance plans for “C” Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following:

    a. 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 must 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.
    b. 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.
    c. Operating limits for the “C” Blast Furnace Casthouse Emission Control System. The permittee must establish the operating limits according to the following requirements:.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include 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.

(ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.

(iii) 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 the parameter was chosen, 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.

d. Corrective action procedures for the “C” Blast Furnace Casthouse Emission Control Baghouse. In the event a bag leak detection system alarm is triggered, corrective action must be initiated 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:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
(ii) Sealing off defective bags or filter media.
(iii) Replacing defective bags or filter media or otherwise repairing the control device.
(iv) Sealing off a defective baghouse compartment.
(v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
(vi) Shutting down the process producing the particulate emissions.**(40 CFR 63.7800(b))**

8. If applicable, the permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the requirements of 40 CFR 63.7830(a) and 40 CFR 63.7831(e). **(40 CFR 63.7830(a))**

9. The permittee shall conduct inspections of the C Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.

a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
c. Check the compressed air supply for pulse-jet baghouses each day.
d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c)(3))**

10. The permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b) and (d))**

    a. Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data; **(40 CFR 63.7831(b)(1))**
    b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
    c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**

11. Except as allowed in SC VI.13, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**

    a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
    b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
    c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel, which sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
    d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

12. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.13. **(40 CFR 63.7831(f)(6))**

13. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

14. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

15. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**

16. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**

17. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.13. **(40 CFR 63.7833(c)(1))**

18. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

19. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

20. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

21. The permittee shall maintain records of visible emissions observations in SC I.2 required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7842(c)**

22. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7842(d) and 40 CFR 63.7833(c)(4))**

23. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

24. The permittee shall monitor and record, in a satisfactory manner, the iron production for EUCBCASTHOUSE on a daily, monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

25. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for the natural gas suppression system of EUCFURNACE on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

26. The permittee shall periodically inspect the installed stove burners of the EUCFURNACE stove, and the venturi scrubber and mechanical collector for pre-combustion gas cleaning of the stoves to determine its operational and physical condition at least once every six months. Written records of each inspection and corrective action taken, if any, shall be maintained. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4)R 336.2803, R 336.2804)**

27. The permittee shall monitor and record, in a satisfactory manner, blast furnace gas and natural gas usage records for EUCFURNACE stove on a monthly, and 12-month rolling time period basis. The permittee shall keep, in a satisfactory manner, all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4)R 336.2803, R 336.2804)**

28. The permittee shall maintain records of all information necessary to demonstrate compliance with the emission limits of this permit. ((**R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2804)**

29. The permittee shall keep, in a satisfactory manner, hourly, calendar day average, monthly and previous 12-month rolling time period records of SO_2 emission calculations for EUCFURNACE, using actual emissions data obtained from the CERMS installed on EUCFURNACE stove stack and baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.2802, R 336.2803, R 336.2804, R 336.2810)**

30. The permittee shall perform preventative maintenance on the EUCFURNACE baghouse as specified in the operation and maintenance plan for the baghouse. **(40 CFR 63.7834(a)(2))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCBFROOFMONEAST	NA	75.2	R 336.1225 R 336.2803, R 336.2804,
2. SVCBFROOFMONNORTH	NA	75.2	R 336.1225 R 336.2803, R 336.2804,
3. SVCFBH	153	200	R 336.1225 R 336.2803, R 336.2804,
4. SVCFSTOVE	129	210	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

2. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**

3. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rules 201(1)(b).

The following conditions apply to:
EURELADLINGBOF

DESCRIPTION: Reladling South & North – BOF

Flexible Group ID: FGBOFSHOP

POLLUTION CONTROL EQUIPMENT: BOF secondary emissions baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	20% Opacity	3-minute average	EURELADLINGBOF Fugitive emissions from hot metal transfer operation building or enclosure	See Note below*	R 336.1365(2)
2. Visible emissions	20% Opacity	3-minute average	EURELADLINGBOF Fugitive emissions from hot metal transfer operation building or enclosure	SC V.1 SC V.2 SC V.3	40 CFR 63.7790(a) Table 1, Item 12
3. PM	6.3 tpy	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM10	3.6 tpy	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. PM2.5	1.84 tpy	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
* Note: Compliance with Rule 356(2) shall be demonstrated through Method 9 readings as specified in SC VI.4 of the EUBOF section.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EURELADLINGBOF and the BOF secondary baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EURELADLINGBOF and the BOF secondary baghouse emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), and 40 CFR 63.6(e)(3))**

3. The permittee shall not operate EURELADLINGBOF unless the emissions are directed to the BOF secondary baghouse and the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.1910, R 336.2802(4))**

4. Unless necessary for emergency, health or safety reasons, including to allow for safe shutdown of operations, the permittee shall not use the North Hole of the Basic Oxygen Furnace Shop for emergency hot metal transfer, hot metal desulfurization, or beaching of molten iron, without installation and operation of appropriate control technology which prevents emissions in excess of the applicable Michigan SIP Rule or additional requirements that are promulgated under Section 112 of the Clean Air Act, 42 U.S.C. Section 7412, or are incorporated in a permit. If the North Hole is used for emergency reasons, the permittee shall report any such use in its next semiannual report. The report shall include the following information for each such prohibited use of the North Hole without the appropriate control technology:

   a. Date

   b. Start time

   c. Stop time

   d. Duration of use

   e. Reason for use. **(R 336.1201(3))**

5. Upon routing the Reladling North Operations exhaust to the BOF secondary baghouse, the permittee may utilize the Reladling North Operations in compliance with the applicable requirements of EURELADLINGBOF, and with the emission, monitoring, testing, and recordkeeping requirements of FGBOFSHOP. **(40 CFR 63 Subpart FFFFF)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct performance tests for opacity and PM no less frequently than once during the ROP renewal period. **(40 CFR 63.7821)**

2. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate of the BOF secondary baghouse. Performance testing for particulate is contained in the FGBOFSHOP section. **(40 CFR 63.7823(b))**

3. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**

   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2803, R 336.2804)**

2. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

3. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

4. The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

5. The permittee shall keep monthly records of the amount of iron throughput to the Reladling South and North Operations, separately. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a)&(b), R 336.2801(ee), R 336.2802(4))**

6. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, and PM2.5 emission rates from the EURELADLINGBOF roof monitors. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a)&(b), R 336.2801(ee), R 336.2802(4))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFBH	222	200	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**

2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

The following conditions apply to:
EUBOFDESULF

DESCRIPTION: Desulfurization operation using lime and magnesium to remove sulfur and skimming of slag into a slag pot, all controlled by a movable hood to a baghouse.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	20% Opacity	3-minute average	EUBOFDESULF Baghouse stack	SC III.1 SC VI.2	R 336.1366(1)
2. Visible emissions	20% Opacity	3-minute average	EUBOFDESULF BOF Shop Building	SC III.1 See Note below**	R 336.1366(2)
3. Visible emissions	20% Opacity	3-minute average	EUBOFDESULF BOF Shop Building	SC V.1 SC V.2 SC V.4	40 CFR 63.7790(a) Table 1, Item 12
4. PM	0.01 gr/dscf	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4) 40 CFR 63.7790(a) Table 1, Item 10
5. PM	7.7 pph	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
6. PM	126.72 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4)
7. PM10	3.6 pph	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM10	24.38 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM2.5	3.6 pph	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM2.5	14.25 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
11. Pb	0.0016 pph	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.2804
12. Mn	0.013 pph [1]	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1225
*Test Protocol will specify averaging time. ** Note: Compliance with Rule 366(2) shall be demonstrated through Method 9 readings as specified in SC VI.4 of the EUBOF section.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. EUBOFDESULF and the associated baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for EUBOFDESULF and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), and 40 CFR 63.6(e)(3))**

3. The permittee shall not operate EUBOFDESULF unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1225, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4),R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct performance tests for particulate matter emissions and opacity at least once every 5 years. **(40 CFR 63.7821)**

2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**

3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**

4. The permittee shall demonstrate compliance with the opacity limitation in SC I.3 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**

   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**

5. Within three years of the issuance of this permit, the permittee shall verify the PM, PM10, PM2.5, Pb, and Mn emission rates from EUBOFDESULF baghouse stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb and Mn dust concentrations in the EUBOFDESULF baghouse hoppers. Subsequent Pb and Mn sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1228, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the EUBOFDESULF baghouse stack at least once every month during EUBOFDESULF processing activity for a minimum of one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1366(1))**

3. The permittee shall conduct inspections of the Desulfurization Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.

   a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
   b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
   c. Check the compressed air supply for pulse-jet baghouses each day.
   d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
   e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
   f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
   g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
   h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**

4. Except as allowed in SC VI.6, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**

   a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
   b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
   c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
   d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

5. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.6. **(40 CFR 63.7831(f)(6))**

6. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

7. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

8. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 7832(b))**

9. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4) and 40 CFR 63.7842(d))**

10. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.6. **(40 CFR 63.7833(c)(1))**

11. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

12. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

13. The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

14. The permittee shall keep monthly records of the amount of iron throughput to EUBOFDESULF. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

15. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, and PM2.5 emission rates from the EUBOFDESULF roof monitor. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDESULFBH	66	37	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**

2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rules 201(1)(b).

The following conditions apply to:
EUDESULFWATERSTN

DESCRIPTION: BOF desulfurization by-product material (desulf) watering station located at the south end of the BOF building. Levy digs the byproduct material with a front-end loader, and brings it to an open area for cooling and fugitive dust control using water spray. After thorough cooling, Levy loads the materials into trucks for processing off site.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Water spray system

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	5% Opacity	3-minute average	EUDESULFWATERSTN Fugitive dust from any road, lot, storage pile, or material handling activity at a storage outside the BOF building	SC VI.2	R 324.5524(2)
2. Visible Emissions	20% Opacity	3-minute average	EUDESULFWATERSTN Fugitive dust from any other source outside the BOF building	SC VI.2	R 324.5524(2)
3. Visible emissions	10% Opacity	3-minute average	EUDESULFWATERSTN fugitive dust emissions from material handling activities at indoor storage pile and from building openings other than roof monitors	SC VI.2	R 324.5524(8) R 336.1301(c) R 336.1366(2)
4. Visible emissions	20% Opacity	3-minute average	EUDESULFWATERSTN fugitive dust emissions from roof monitors	SC VI.2	R 336.1301(c) R 336.1364

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. To control fugitive dust when processing the desulf material, the permittee shall not process the desulf material outside the BOF building without cooling off the material thoroughly with the water spray system. **(R 336.1910, R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUDESULFWATERSTN unless the water spray system is installed and operating properly. **(R 336.1301, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 324.5524, R 336.1301, R 336.1364)**

2. The permittee shall perform a Method 9D certified visible emission observation of the desulf watering station at least once every two weeks for a minimum of 15 minutes during the dumping, watering and loading operation. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301(c), R 336.1364, R 336.1366(2), R 336.1910, R 324.5524(2), R 324.5524(8))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
EUBOF

DESCRIPTION: Basic oxygen furnace (BOF) including charging, oxygen blowing, tapping and slag tapping. Two vessels controlled by an electrostatic precipitator and a secondary emissions baghouse.

Flexible Group ID: FGBOFSHOP

POLLUTION CONTROL EQUIPMENT: One Electrostatic Precipitator for both BOF Vessels, BOF Secondary Baghouse for fugitive emissions and reladeling

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	10% Opacity, as a trigger for corrective action	Hourly average	EUBOF ESP stack	SC. VI.2 SC VI.10	40 CFR 63.7790(b)(3), 40 CFR 63.7833(g)
2. Visible emissions	20% Opacity	3-minute average	EUBOF Shop building	SC V.2 SC V.3 SC V.4 SC V.5	40 CFR 63.7790(a)
3. Visible emissions	20% Opacity	3-minute average	EUBOF Roof monitor	SC. VI.4 SC. VI.5	R 336.1364(2)
4. PM	0.0152 gr/dscf	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1331(1)(c) R 336.2802(4) 40 CFR 52.21 (a)(2)
5. PM	0.02 gr/dscf	Test Protocol*	EUBOF ESP stack	SC V.1 SC V.2 SC V.3	40 CFR 63.7990(a)
6. PM	62.6 pph	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM	61.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.34	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4)
8. PM10	47.5pph	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM10	28.3 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.34	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
10. PM2.5	46.85 pph	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
11. PM2.5	20.2 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.34	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. NOx	52.9 pph	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
13. NOx	162.1 tpy	12-month rolling time period as determined at the end of each calendar month	EUBOF ESP stack	SC VI.33	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
14. CO	7,048 pph	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.2804
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Steel Production	12,200 tons per day	Calendar Day	EUBOF	SC VI.31 SC VI.32	R 336.1225 R 336.2803, R 336.2804
2. Steel Production	4,052,230 tons per year	12-month rolling time period basis as determined at the end of each calendar month	EUBOF	SC VI.31 SC VI.32	R 336.1205(1)(a)&(b) R 336.1225 R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUBOF off-gas conditioning system which provides additional air-atomized water spray, shall be maintained as part of the off gas conditioning system and shall be included in the operation and maintenance plan for the BOF ESP. **(R 336.1910)**

2. The BOF vessels and ESP shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

3. The permittee shall operate the BOF capture system and ESP according to an operation and maintenance plan that meets the requirements as follows:

   (a) The permittee shall prepare and operate at all times according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in §63.7790(b). Each plan must address the elements in paragraphs (b)(1) through (7) of this section.

(1) 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 must 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.

(2) 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.

(3) Operating limits for each capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse or to secondary emissions from a BOF. You must establish the operating limits according to the requirements in paragraphs SC III.3(a)(3)(i) through (iii):

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system.

(ii) For each operating limit parameter selected in SC III.3(a)(3)(i), designate the value or setting for the parameter at which the capture system operates during the process operation.

(iii) Include documentation in the plan to support the selection of the operating limits established for the capture system.

(4) Corrective action procedures for baghouses equipped with bag leak detection systems or continuous opacity monitoring systems (COMS). Corrective actions may include, but are not limited to:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(5) Corrective action procedures for venturi scrubbers equipped with continuous parameter monitoring systems (CPMS). In the event a venturi scrubber exceeds the operating limit in §63.7790(b)(2), you must take corrective actions consistent with your site-specific monitoring plan in accordance with §63.7831(a). (**(R 336.1911, 40 CFR 63.7800(b) and 40 CFR 63.6(e)(3))**

4. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the BOF vessels and the associated emission control system. **(40 CFR 63.7810(c), 40 CFR 63.7835(b) and 40 CFR 63.6(e)(3))**

5. During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen flow rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor. **(R. 336.1301, R 336.1901)**

6. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, it shall be broken up with a breaking ball. **(MDEQ Consent Order 6-2006, Paragraph 11(D)(i))**

7. The ESP dust handling conveyor at the Basic Oxygen Furnace Building shall have a 180 degree cover over the belt. **(SIP No. 30-1993, Exhibit A, Paragraph 5 (F)(3))**

8. ESP dust shall be moved by covered belt conveyor to a storage bin and, if transported offsite, the ESP dust, including coarse dust collected in a drop chamber, shall be wetted and transported by a covered truck, or shall be transported by a pneumatic truck to a landfill or other approved facility for recycling and/or disposal. **(SIP No. 30-1993, Exhibit A, Paragraph 5 (B)(5))**

9. Within 60 days of permit issuance, the permittee shall develop and make available for inspection upon request by AQD a site-specific monitoring plan that addresses all of the following requirements for the BOF ESP: **(40 CFR 63.7831(a))**

a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each hooded emission point such that the measurement is representative of capture of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
b. Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
d. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8); **(40 CFR 63.7831(a)(4))**
e. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and **(40 CFR 63.7831(a)(5))**
f. Ongoing recordkeeping and reporting procedures in accordance the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.7831(a)(6))**
g. Corrective action procedures that will be followed in the event an electrostatic precipitator exceeds the operating limit in 40 CFR 63.7790(b)(3). **(40 CFR 63.7831(a)(8))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUBOF unless the ESP is installed and operating properly. **(R 336.1301, R 336.1331(c), R 336.1910)**

2. The permittee shall not operate the EUBOF unless the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

3. The permittee shall not operate EUBOF controlled by an ESP control system unless each transformer-rectifier set of the ESP is equipped with a saturable core reactor, silicon-controlled rectifier linear reactor, or equivalent type automatic control system approved by the AQD District Supervisor. **(R 336.1330(1))**

4. Each automatic controller shall be set to provide maximum power, or optimal power if operating in a sparking mode, from its respective transformer-rectifier set. **(R 336.1330(1))**

5. Each transformer-rectifier set shall be capable of operating in a spark-limited mode and shall meter and display the primary RMS voltage and amperage, the average secondary amperage, and the average spark rate. **(R 336.1330(2))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. Testing shall be performed with test methods as specified in 40 CFR 63.7822. **(40 CFR 63.7821, 40 CFR 63.7822(g)(1) and (2))**

2. Permittee shall conduct performance tests for particulate matter emissions and opacity at least twice during the ROP renewal period. **(40 CFR 63.7821(a))**

3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**

4. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**

   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**

5. Opacity observations from the roof monitors must cover at least three steel production cycles. A production cycle begins when scrap is charged and ends three minutes after slag is emptied from the vessel into the slag pot. **(40 CFR 63.7823(d)(4))**

6. Permittee shall determine and record the starting and stopping times of the steel production cycle. **(40 CFR 63.7823(d)(5))**

7. The permittee shall verify visible emissions, PM, PM10, PM2.5, NOx, and CO emission rates from the EUBOF ESP stack (including BOF oxygen blows), by testing at owner's expense, in accordance with Department requirements, within 180 days after permit issuance unless a test has been completed within two years prior to the effective date of this permit and the results submitted to the AQD for approval. The PM testing shall be performed with test methods as specified in Rule 336.1331. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804, R 336.2802(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall install, operate and maintain a continuous opacity monitor on the EUBOF ESP stack and monitor the hourly average opacity of the stack continuously when the process is in operation. The Continuous Opacity Monitoring System (COMS) shall provide valid 1 hour averages for at least 95 percent of process operating hours for every quarterly reporting period. COMS data must be reduced to 6-minute averages as specified in §63.8(g)(2) and to hourly averages where required by Subpart FFFFF. The permittee shall operate the EUBOF ESP COMS to meet the timelines, requirements and reporting detailed in Appendix 1.3.3 and shall use the COMS data for determining compliance with SC I.1. **(40 CFR 63.7830(d), 40 CFR 63.7831(h), 40 CFR 63.7832(a), 40 CFR 63.7833(g))**

3. The permittee shall perform a Method 9 certified visible emission observation of EUBOF ESP stack at least once every week during operation for a minimum of one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301)**

4. The permittee shall perform a Method 9C certified visible emission observation of the BOF roof monitors and a Method 9C certified visible emission observation of the BOF shop building, including reladling and desulfurization operations, at least once a week during BOF operations for a minimum of one hour, which must include one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the permit limit and shall keep a written record of each required observation and corrective action taken. The written record shall include all of the information required for the BOF camera log in SC VI.28.c. The permittee shall review the written record on a monthly basis and verify all relevant information has been included. **(R 336.1301(c), R 336.1364(2), R 336.1365(2), R 336.1366(2))**

5. The permittee shall perform a Method 9C certified visible emission observation during each beaching event that occurs during daylight hours unless impractical due to an emergency situation. When beaching within the BOF building, the visible emissions observation shall include the BOF roof monitors and BOF shop building, and when beaching outdoors, the visible emissions observation shall be conducted of the outdoor beaching location. Permittee shall maintain of log of each occurrence which shall include date, start time, stop time, location of beaching event, visible emissions observations or the reason why such observation was not conducted, and reason for beaching. **(R 336.1301(c), R 336.1364(2))**

6. Within 60 days of issuance of this permit, the permittee shall update on-site screening procedure and scrap management plan, or alternate plan(s) as approved in writing by the AQD District Supervisor. The plan(s) shall be implemented and maintained immediately after approval. The on-site screening procedure and material management plan will facilitate the permittee's efforts in controlling mercury and/or other toxics and VOC emissions by eliminating unacceptable scrap and eliminating or reducing scrap with mercury contaminated materials. The permittee shall require all suppliers to document that mercury-containing devices and switches have been removed from the scrap[1]. **(R 336.1228, R 336.1901)**

7. If applicable, the permittee shall operate and maintain the EUBOF ESP CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b))**

   a. Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data; **(40 CFR 63.7831(b)(1))**
   b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
   c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**

8. The permittee shall monitor the process as required, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

9. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. All other data collected during all other periods must be used in assessing compliance. **(40 CFR 63.7832(b))**

10. Pursuant to 40 CFR 63.7833(g), if the hourly average opacity for the EUBOF ESP exceeds 10 percent, the permittee shall follow the procedures below:

    a. 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, such as total power input (voltage and secondary current) of the ESP fields, off-gas conditioning system prior to the ESP (water flow rate within standard operating levels) and any other parameters that are necessary for proper operation of the ESP. Within 24 hours of the exceedance, the permittee must measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the 10 percent limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit. **(R 336.1201(3), 40 CFR 63.7833(g)(1))**

    b. If the initial corrective action was not successful, the permittee must complete additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, permittee must continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24-hour period, permittee must again measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the 10 percent 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. Measurements of the hourly average opacity based on visible emission observations in accordance with Method 9 (40 CFR part 60, Appendix A) may be taken to evaluate the effectiveness of corrective action. **(40 CFR 63.7833(g)(3))**

d. If the second attempt at corrective action was not successful, the permittee must report the exceedance as a deviation in their next semiannual compliance report according to §63.7841(b). **(40 CFR 63.7833(g)(4))**

All monitoring data is shall be kept on file for a period of at least five years and made available to the AQD upon request. **(R 336.1301(1)(c), 40 CFR 63.7830(d), 40 CFR 63.7831(h), 40 CFR 63.7832(a), 40 CFR 63.7833(g))**

11. The permittee shall perform preventative maintenance on the EUBOF ESP as specified in the operation and maintenance plan for the ESP. **(40 CFR 63.7834(a)(2))**

12. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63 Subpart FFFFF 63.7842(a), (b), (c) and (d). **(40 CFR 63.7842(a), (b), (c) and (d))**

13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

14. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

15. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

16. The permittee shall maintain records of the following for the continuous opacity monitor:

    a. Periods when the monitor is malfunctioning or inoperative; **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(vi))**
    b. All required measurements necessary to demonstrate compliance with a standard (including, but not limited to, 15-minute averages of monitoring data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(vii))**
    c. All results of performance tests, monitor performance evaluations and opacity and visible emission observations; **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(viii))**
    d. All measurements necessary to determine the conditions of performance tests and evaluations; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(ix))**
    e. All monitor calibration checks; **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(x))**
    f. All adjustments and maintenance performed on the continuous monitor; **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(xi))**
    g. Monitoring data produced during performance testing; **(40 CFR 63.7842(b)(2))**
    h. Superseded versions of the performance evaluation plan; and **(40 CFR 63.7842(b)(3) and 40 CFR 63.8(d)(3))**
    i. The date and time each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, malfunction, or during another period. **(40 CFR 63.7842(b)(4))**

17. The permittee shall record the oxygen flow rate at least once every minute during each oxygen blow. **(MDEQ Consent Order 6-2006, Paragraph 11(B)(iii))**

18. The effectiveness of the slopping procedure shall be monitored via the BOF Monitoring and Evaluation Requirements in paragraph 12 of MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 11(B)(iv))**

19. The permittee shall maintain records of any new draft control equipment or instrument installation, and shall document that the draft set point programming is working properly after any such installation. **(MDEQ Consent Order 6-2006, Paragraph 11(C) (i) and (iii))**

20. The effectiveness of the draft set point program shall be monitored via the BOF Monitoring and Evaluation Requirements in Paragraph 12 of MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(iv))**

21. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, the permittee shall notify the AQD Southeast Michigan District office of such fact, and of its compliance with the breaking ball requirement set forth in III.8 of this section. **(MDEQ Consent Order 6-2006, Paragraph 11(D)(ii))**

22. The permittee shall inspect the exterior of the Guillotine Relief Dampers, Relief chambers and Downcomer on a weekly basis for evidence of exhaust leaks. Records of each inspection, to include the name of the inspector, the time and date of the inspection, shall be maintained for a period of five years. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(i)), R 336.1301, R 336.1901)**

23. If the inspection identifies an exhaust leak likely to cause visible emissions, repair procedures shall be initiated. If the exhaust leak is identified during an operating period, temporary repairs shall be initiated within twenty-four (24) hours of verification of the leak. If the leak is identified during an outage, initiation of repairs shall be coordinated with any scheduled repairs. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(ii))**

24. Following completion of either temporary or permanent repairs, an inspection will be conducted during operation of the affected vessel. The performance of the repair shall be recorded. If additional repair is necessary, it will be scheduled and implemented in accordance with SC VI.24 of this section until the leak is no longer a source of emissions. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(iii))**

25. Upon termination of MDEQ Consent Order 6-2006, if an inspection of the exterior of Guillotine Dampers, Relief Dampers, and Downcomer reveals an exhaust leak likely to lead to excess visible emissions, appropriate temporary or permanent repairs shall be initiated within twenty-four (24) hours of verification of the leak and shall be completed until leak is no longer a source of excess emission. **(R 336.1301, R 336.1901)**

26. The permittee shall install 8 digital cameras at the BOF to better obtain continuous, real-time information about the status of its operations at the BOF and BOF emission points. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(i))**

27. The images from the 8 cameras will be transmitted to the BOF pulpits for A and B vessels, to the ESP pulpit and to a conference room in the BOF. If excess emissions are observed from the BOF Roof Monitor, then,

    a. The appropriate operator(s), if other than the viewer of the image, shall be immediately notified.
    b. Any reasonable immediate corrective action that can be taken to address the emission shall be taken.
    c. A log entry will be made of the observation, including the date and time of the observation, the source of the emissions and the cause, if known. If the cause is not known, an immediate investigation of the cause shall be undertaken, and the log updated with the results of such investigation.**(MDEQ Consent Order 6-2006, Paragraph 12(A)(iv))**

28. The images recorded by the cameras once every three seconds shall be stored so that the images can be retrieved for up to thirty (30) days. The images shall be stored such that images of a particular date and time can be identified and recalled. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(v))**

29. After the termination of the provisions of MDEQ Consent Order 6-2006, Paragraph 12(A), permittee shall utilize 8 digital cameras, of which at least 4 must be in operation at any one time and at least one of the four shall be an external view of the BOF, to obtain real-time information about the status of operations at the BOF and BOF emission points. Images from the cameras will be transmitted to the BOF pulpits for A and B vessels, or such other locations as may be approved by the AQD District Supervisor. If excess emissions are observed from the BOF Roof Monitor, then,

    a. The appropriate operator(s), if other than the viewer of the image, shall be immediately notified.
    b. Any reasonable immediate corrective action that can be taken to address the emission shall be taken.
    c. A log entry will be made of the observation, including the date and time of the observation, the source of the emissions and the cause, if known. If the cause is unknown, an immediate investigation of the cause shall be undertaken, and the log updated with the results of such investigation. **(R 336.1301, R 336.1901)**

30. The permittee shall keep daily and monthly records of the amount of steel produced, in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

31. The permittee shall keep monthly records of the hot metal charging tonnage, steel tapping tonnage and slag tapping tonnage in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

32. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period NOx emission rates from EUBOF ESP stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

33. Using the method shown in Appendix 1.7, the permittee shall calculate the monthly and 12-month rolling time period for PM, PM10, and PM2.5 emission rates for EUBOF roof monitor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

34. The permittee shall maintain a copy of the current operation and maintenance plans required in this section onsite and available for inspection. **(40 CFR 63.7834(b))**

35. The permittee shall maintain records of the monitoring data from the continuous opacity monitor. **(40 CFR 63.7842(d))**

36. Permittee shall conduct certified visible emissions observations of the EUBOF Roof Monitors using Method 9C for a minimum of two (2) hours per week. The observations must include two (2) complete heats. The emissions observations must be recorded as they are made, with observations recorded at fifteen (15) second intervals. If any exceedance of visible emission standards is observed at the BOF roof monitors, the permittee shall conduct an investigation into the cause of the exceedance. The investigation shall consider data collected by the cameras that are required by Consent Order 6-2006, Paragraph 12(A). **(MDEQ Consent Order 6-2006, Paragraph 12(B)(i) & (ii))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

3. The permittee shall prepare a report for each exceedance in which it shall identify the date, time and extent of the exceedance, as well as a description of the investigation into the cause of the exceedance. The report shall identify the cause of the exceedance, to the extent ascertainable, and identify corrective action to prevent a recurrence of the exceedance. The reports generated pursuant to this requirement shall be sent to the AQD Southeast Michigan District Supervisor within fourteen (14) days of the occurrence. **(MDEQ Consent Order 6-2006, Paragraph 12(B)(iii))**

4. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report of COMS exceedances in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter as required in Appendix 1.3.3. **(R 336.1331)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFESP	204	213	R 336.1225 R 336.2803, R 336.2804
2. SCBOFBH	222	200	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF as specified in this section, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**

2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

3. The permittee shall evaluate the effectiveness of the draft set point program each time any new draft control equipment or instruments are installed that could cause affect use of the appropriate draft point setting. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(i))**

4. The permittee may petition in writing for a modification or termination of the draft set point program as described in IX.6 of this section. The petition shall be submitted to the AQD Southeast Michigan District Supervisor for approval. In any such petition, the permittee has the burden of proof. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(ii))**

5. Upon approval of the AQD Southeast Michigan District Supervisor, the permittee may change the specified location of the cameras detailed in VI.26 of this section. Such approval shall be in writing and will be incorporated by reference as a revision to MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(vii))**

6. Following installation of the BOF secondary emission control equipment, the permittee may petition the AQD Southeast Michigan District Supervisor for elimination of any or all of the requirements for camera operation or visible emissions monitoring as described in SC VI.24, SC VI.25, and SC VI.26 of this section. **(MDEQ Consent Order 6-2006, Paragraph 12(B)(iv))**

7. The permittee shall not conduct any torch cutting of scrap at the EAF Stockhouse or any outside areas for use in the BOF, exclusive of demolition of existing facility structures, building and equipment, and emergencies unless it first obtains any necessary permit from the AQD to conduct such activity. **(MDEQ Consent Order 6-2006, Paragraph 11(A), (R 336.1301, R 336.1901)**

8. The permittee shall record the specific information as required in the on-site screening procedure and scrap management plan. All such records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. [1] **(R 336.1228, R 336.1901)**

9. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EULADLEREFINE1

DESCRIPTION: No. 1 Ladle refining facility controlled by a baghouse

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	5% Opacity	6-minute average	EULADLEREFINE1 Baghouse stack	SC V.3 SC VI.2	R 336.1301(1)(c)
2. Visible emissions	No visible emissions	Instantaneous	EULADLEREFINE1 Roof monitors	SC V.3 SC VI.3	R 336.1205(1)(a) & (b) R 336.1301(1)(c) R 336.2801(ee) R 336.2802(4) R 336.2902(2)
3. Visible emissions	20% Opacity	3-minute average	EULADLEREFINE1 Roof Monitors	SC V.1 SC V.2	40 CFR 63.7790(a)
4. PM	0.005 gr/dscf	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.6	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
5. PM	0.01 gr/dscf	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.1 SC V.2	40 CFR 63.7790(a)
6. PM	6.33 pph	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM10	6.65 pph	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM2.5	6.65 pph	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a) & (b) R 336.2803, R336.2804
9. Pb	0.022 pph	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.2804 40 CFR 52.21 (d)

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EULADLEREFINE1 and associated baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EULADLEREFINE1 and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), and 40 CFR 63.6(e)(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EULADLEREFINE1 unless the baghouse is installed and operating properly. **(R 336.1331(c), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct performance tests for particulate matter emissions at least once every five years. **(40 CFR 63.7821)**

2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**

3. Within three years of the issuance of this permit, the permittee shall verify visible emissions, PM, PM10, PM2.5 and Pb emission rates from the EULADLEREFINE1 baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb dust concentrations in the EULADLEREFINE1 baghouse hoppers. Subsequent Pb sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including baghouse dust analysis for Pb, to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

4. The permittee shall verify the capture efficiency for EULADLEREFINE1 using computational fluid dynamics (CFD) modeling or other approved method within three years of the issuance of this permit. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE1 baghouse stack at least once every month during EULADLEREFINE1 processing activity for a minimum of one complete heat or a maximum of one hour during a heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301(c))**

3. The permittee shall perform Method 9 certified visible emission observation for the EULADLEREFINE1 roof monitors at least once a week during EULADLEREFINE1 operations for a minimum of one complete heat or a maximum of one hour during a heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

4. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the operation and maintenance manual. **(40 CFR 63.7830(b)(4)(i))**

5. The permittee shall conduct inspections of the Ladle Refining Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.

   a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
   b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
   c. Check the compressed air supply for pulse-jet baghouses each day.
   d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
   e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
   f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
   g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
   h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**

6. Except as allowed in S.C. VI.8, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**

   a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
   b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
   c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
   d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

7. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.8. **(40 CFR 63.7831(f)(6))**

8. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

9. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

10. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**

11. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4), CFR 63.7842(d))**

12. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.8. **(40 CFR 63.7833(c)(1))**

13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

14. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

15. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVLADELREFINE1	108	148	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**

2. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

The following conditions apply to:
EULADLEREFINE2

DESCRIPTION: No. 2 Ladle refining facility controlled by a baghouse.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	5% Opacity	6-minute average	EULADLEREFINE2 Baghouse stack	SC V.3 SC VI.2	R 336.1301(1)(c)
2. Visible emissions	No visible emissions	Instantaneous	EULADLEREFINE2 Roof monitors	SCV.3 SC VI.3	R 336.1205(1)(a) & (b) R 336.1301(1)(c) R 336.2801(ee) R 336.2802(4) R 336.2902(2)
3. Visible emissions	20% Opacity	3-minute average	EULADLEREFINE2 Roof monitors	SC V.1 SC V.2	40 CFR 63.7790(a)
4. PM	0.005 gr/dscf	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
5. PM	0.01 gr/dscf	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.1 SC V.2 SC V.3	40 CFR 63.7790(a)
6. PM	3.72 pph	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM10	3.91 pph	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM2.5	3.91 pph	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
9. Pb	0.013 pph	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.2804
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EULADLEREFINE2 and associated baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a) and 40 CFR 63.6(e)(1)(i))**

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EULADLEREFINE2 and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), and 40 CFR 63.6(e)(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EULADLEREFINE2 unless the baghouse is installed and operating properly. **(R 336.1331(c), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct performance tests for particulate matter emissions at least once during the ROP renewal period. **(40 CFR 63.7821)**

2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**

3. Within three years of the issuance of this permit, the permittee shall verify visible emissions, PM, PM10, PM2.5 and Pb emission rates from the EULADLEREFINE2 baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb dust concentrations in the EULADLEREFINE2 baghouse hoppers. Subsequent Pb sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including baghouse dust analysis for Pb, to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

4. The permittee shall verify the capture efficiency for EULADLEREFINE2 with computational fluid dynamics (CFD) modeling or other approved method within three years of the issuance of this permit. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE2 baghouse stack at least once every month during EULADLEREFINE2 processing activity for a minimum of one complete heat or a maximum of one hour during a heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301(c))**

3. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE2 roof monitors at least once a week during EULADLEREFINE2 operations for a minimum of one complete heat or a maximum of one hour during a heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

4. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the operation and maintenance manual. **(40 CFR 63.7830(b)(4)(i))**

5. The permittee shall conduct inspections of the Ladle Refining Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.

   a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
   b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
   c. Check the compressed air supply for pulse-jet baghouses each day.
   d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
   e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
   f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
   g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
   h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**

6. Except as allowed in S.C. VI.8, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**

   a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
   b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
   c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
   d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

7. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.8. **(40 CFR 63.7831(f)(6))**

8. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

9. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

10. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**

11. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4), CFR 63.7842(d))**

12. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.8. **(40 CFR 63.7833(c)(1))**

13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

14. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

15. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVLADELREFINE2	72	150	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**

2. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGB&CFURNACES	B & C Blast Furnace casthouses and stoves	EUBFURNACE EUCFURNACE
FGBOFSHOP	Two Basic Oxygen Furnace vessels and BOF Reladling south and north	EUBOF EURELADLINGBOF
FGANNEALFURNACES	52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building.	EUANNEALFURNACES
FGHSMFURNACES123	Three Slab reheat furnace Nos. 1, 2 and 3 located in the Hot Strip Mill Building.	EUREHEATFURN1 EUREHEATFURN2 EUREHEATFURN3
FG-ENG2007>500	Two SI engines at a major source greater than 500 horsepower.	EU-ENGCBFTC EU-ENGCBFHS
FG-ENG2007<500	Four SI engines at a major source less than 500 horsepower and limited use.	EU-ENGCBFBS EU-ENGWSAC EU-ENGCBFDM EU-ENGCBFGS
FGORDERS	Facility wide restrictions per consent orders	

The following conditions apply to:
FGB&CFURNACES

DESCRIPTION: B & C Blast Furnace casthouses and stoves

Emission Units: EUBFURNACE, EUCFURNACE

POLLUTION CONTROL EQUIPMENT: Casthouse: baghouse; Stoves: Low-NOx technology, venturi scrubber and mechanical collector for blast furnace gas precleaning

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	87.4 tpy	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
2. PM	27.75 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM	35.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stoves	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM10	87.01 tpy	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804 (c)
5. PM10	15.04 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
6. PM10	99.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stoves	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
7. PM2.5	87.01 tpy	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
8. PM2.5	7.27 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
9. PM2.5	99.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. SO_2	1,188 tpy	12-month rolling average as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks and Stove stacks	VI.6	R 336.2803, R 336.2804
11. NOx	25.74 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
12. NOx	439.2 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
13. CO	8,760 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.2810 R 336.2804
14. VOC	49.42 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.1702(a)
15. Pb	0.05 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2804
16. Pb	0.044 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2804
17. Pb	0.06 tpy	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2804
18. Mn	0.24 tpy [1]	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1225
19. Mn	0.26 tpy [1]	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1225
20. Mn	0.06 tpy [1]	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1225
21. Total Hg	0.0146 tpy [1]	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1228

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	Combined maximum of 3,321,500 tons per year	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES	SC VI. 2	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO_2 emissions and flow from each EUBFURNACE stove stack and baghouse stack on a continuous basis. **(R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall keep on a daily basis, monthly, and previous 12-month rolling time period record of the amount of iron production from FGB&CFURNACES combined at the B and C Blast Furnace Casthouses. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

3. The permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, NOx, VOC, Pb and Mn emission rates from FGB&CFURNACES baghouse stacks based upon stack testing data and iron throughput limits. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702, R 336.2802(4), R 336.2803, R 336.2804, R 336.2902(2), 40 CFR 51 (Appendix S), 40 CFR 52.21 (a)(2),40 CFR 52.21 (c) & (d))**

4. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, Pb and Mn emission calculations from FGB&CFURNACES roof monitor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

5. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, NOx, CO, Pb, Mn and Total Hg emission rates from FGB&CFURNACES stoves. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1228, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

6. The permittee shall continuously monitor and record, in a satisfactory manner, the SO_2 emissions and flow from each EUBFURNACE stove stack and baghouse stack and each EUCFURNACE stove stack and baghouse stack. The permittee shall operate the Continuous Emission Rate Monitoring System (CERMS) to meet the timelines, requirements and reporting detailed in Appendix 1.3.1 and 1.3.2 and shall use the CERMS data for determining compliance with SC I.1. **(R 336.2803, R 336.2804)**

7. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month records of SO_2 emission calculations for FGB&CFURNACES, using actual emissions data obtained from the CERMS installed on EUBFURNACE stove stack and baghouse stack and EUCFURNACE stove stack and baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.2803, R 336.2804)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rules 201(1)(b).

The following conditions apply to:
FGBOFSHOP

DESCRIPTION: Two Basic Oxygen Furnace vessels and BOF Reladling south and north

Emission Units: EUBOF, EURELADLINGBOF

POLLUTION CONTROL EQUIPMENT: One Electrostatic Precipitator for both BOF Vessels, Secondary Baghouse for process emissions from the two Basic Oxygen Furnace vessels and BOF Reladling south and north.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	20% Opacity	3-minute average	FGBOFSHOP Secondary Baghouse stack	SC V.6 SC VI.2	R 336.1364(1) R 336.1365(1)
2. Visible emissions	15% Opacity	3-minute average	FGBOFSHOP Roof Monitor	SC VI.22	R 336.1331
3. PM	0.003 gr/dscf	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM	0.01 gr/dscf	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.1 SC V.2 SC V.3	40 CFR 63.7990(a)
5. PM	15.6 pph	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
6. PM10	17.71 pph	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
7. PM2.5	17.71 pph	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
8. NOx	10.2 pph	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. NOx	39.7 tpy	12-month rolling time period as determined at the end of each calendar month	FGBOFSHOP Secondary Baghouse stack	SC VI.20	R 336.1205(1)(a) & (b) R 336.2802(4) R 336.2803, R 336.2804
10. Pb	0.067 pph	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1205(1)(a)&(b) R 336.2804

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
11. Mn	0.07 pph [1]	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.7	R 336.1225
12. Mn	0.10 pph [1]	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1225
13. Total Hg	0.0086 pph [1]	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1228
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Processing	10,000 tons per day	Calendar day	FGBOFSHOP (Reladling, Desulfurization)	SC VI. 21	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain a copy of the BOF secondary baghouse capture system design plans and a signed certification from the designer on site, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for both the BOF secondary emissions and the reladling south emissions. These design plans shall include a range of BOF vessel angles to achieve optimum emission capture. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETERS

1 The permittee shall not operate the Basic Oxygen Furnaces or the Reladling South Operation unless the secondary baghouse is installed, maintained, and operated in a satisfactory manner. **(R 336.1225, R 336.1301, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall make the following modifications to FGBOFSHOP within 180 days of the issuance of this permit:

   a) Install a steam ring or other equivalent barrier at A and B Vessels to mitigate the potential for emissions to escape through the lance hole,
   b) Close the gaps at the reline tower door/boiler hood door in the primary capture hood, and;
   c) Modify the charge hood flap to prevent emissions escaping during charge as the flap is drawn. **(R 336.12051(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Permittee shall conduct overlapping performance tests for particulate matter emissions from the BOF secondary baghouse and opacity from the BOF roof monitor (including reladling operation and BOF oxygen blows) at least once during the ROP renewal period **(40 CFR 63.7821)**

2. Permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. **(40 CFR 63.7821, 40 CFR 63.7822(g)(1) and (2))**

3. Permittee shall determine and record the starting and stopping times of the steel production cycle. **(40 CFR 63.7823(d)(5))**

4. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a))**

   a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in 40 CFR 63.7830(a). **(40 CFR 63.7824(a)(1))**
   b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
   c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**

   d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**

5. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**

   a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
   b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
   c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

6. Within three years of the issuance of this permit, the permittee shall verify visible emissions, PM, PM10, PM2.5, and NOx emission rates from the BOF secondary baghouse stack during typical operations (including reladling operation) by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804, R 336.2802(4))**

7. Within three years of the issuance of this permit, the permittee shall verify and quantify Mn, Pb, and total Hg emissions rates from the FGBOFSHOP (secondary baghouse stack and ESP stack simultaneously) by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Mn, Pb and Hg dust concentrations in both the ESP hoppers and the baghouse hoppers. Subsequent Mn, Pb and Hg sampling of the ESP and baghouse hoppers is not required, unless requested by the AQD District Supervisor. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including ESP and baghouse dust analysis for Mn, Pb and Hg, to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

8. The permittee shall verify the capture efficiency for FGBOFSHOP using computational fluid dynamics (CFD) modeling or other approved method within three years of the issuance of this permit. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis. **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R336.2004, R 336.2801(ee))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the FGBOFSHOP secondary baghouse stack at least once every month during BOF operations (including reladling operations). The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1364(1), R 336.1365(1))**

3. The permittee shall prepare, and operate at all times according to, a written operation and maintenance plan for the baghouse capture system. The plan shall address each of the following: **(40 CFR 63.7800(b))**

    a. Weekly inspections of the equipment that is important to the performance of the total capture system, including, but not limited to, observations of the physical appearance of the equipment and requirements to repair any defect or deficiency in the capture system before the next scheduled inspection; **(R 336.1301, R 336.1364(1), 40 CFR 63.7800(b)(1))**
    b. Operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system including, but not limited to, 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. **(40 CFR 63.7800(b)(3))**

4. The permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the following requirements of 40 CFR 63.7830(a):

    a. Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, the permittee shall make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.

b. If the permittee uses a flow measurement device to monitor the operating limit parameter for a sinter plant discharge end or blast furnace casthouse, the permittee shall monitor the hourly average rate (*e.g.,* the hourly average actual volumetric flow rate through each separately ducted hood, the average hourly total volumetric flow rate at the inlet to the control device) according to the requirements in 40 CFR 63.7832.
c. If the permittee uses a flow measurement device to monitor the operating limit parameter for a capture system applied to secondary emissions from a BOPF, the permittee shall monitor the average rate for each steel production cycle (*e.g.,* the average actual volumetric flow rate through each separately ducted hood for each steel production cycle, the average total volumetric flow rate at the inlet to the control device for each steel production cycle) according to the requirements in §63.7832. **(40 CFR 63.7830(a))**

5. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the manual, if applicable. **(40 CFR 63.7830(b)(4)(i))**

6. The permittee shall conduct inspections of the EUBOFSHOP at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.

a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
c. Check the compressed air supply for pulse-jet baghouses each day.
d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**

7. If applicable, the permittee shall develop and make available for inspection upon request by AQD a site-specific monitoring plan that addresses all of the following requirements for the baghouse capture system: **(40 CFR 63.7831(a))**

a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each hooded emission point such that the measurement is representative of capture of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
b. Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
d. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8); **(40 CFR 63.7831(a)(4))**
e. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and **(40 CFR 63.7831(a)(5))**
f. Ongoing recordkeeping and reporting procedures in accordance the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.7831(a)(6))**

8. If applicable, the permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b))**

    a. Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data; **(40 CFR 63.7831(b)(1))**
    b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
    c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**

9. Except as allowed in S.C. VI.11, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control, if applicable: **(40 CFR 63.7831(f))**

    a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
    b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
    c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
    d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

10. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan, if applicable. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.11. **(40 CFR 63.7831(f)(6))**

11. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**

12. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**

13. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**

14. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**

15. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period, if applicable. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.11. **(40 CFR 63.7833(c)(1))**

16. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**

17. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**

18. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

19. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63 Subpart FFFFF 63.7842(a), (b), (c) and (d). **(40 CFR 63.7842(a), (b), (c) and (d))**

20. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period NOx emission calculations for FGBOFSHOP secondary baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

21. The permittee shall keep on a daily basis, record of the amount of iron processed at the BOF shop. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2802(4), R 336.2801(ee), R 336.2803, R 336.2804)**

22. The permittee shall perform a Method 9C certified visible emission observation for the FGBOFSHOP roof monitors at least three times per week on separate days during BOF operations for a minimum of two hours which must include two complete heats. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1331)**

    a) If visible emissions from the EUBOFSHOP Roof Monitor exhibit opacity greater than 10%, on a three-minute average, the permittee shall investigate the reasons for the exceedance and shall verify that the appropriate work practices set forth in SC VI.22.b were followed. Any instance of EUBOFSHOP Roof Monitor opacity in excess of 10% for a 3-minute average shall be defined herein as a period of Elevated Opacity.

    b) In the event of a period of Elevated Opacity, the permittee must be able to demonstrate that the following work practices standards for FGBOFSHOP were followed. The following work practices can be amended or revised upon approval of the AQD District Supervisor:

        i) Hot metal shall not be poured at the reladling station until the hood is in the closed position.
        ii) Additive injections shall not occur until the desulfurization baghouse ID fan is operating at greater than 65 amps.
        iii) The fan speed for the BOF Secondary Baghouse control system shall be maintained in accordance with the set points (+/- 2% of the measured speed) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
        iv) The dampers in the BOF Secondary capture system shall be maintained in accordance the set points (+/- 10% the measured position) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
        v) The hot metal charges at the BOF vessels are a minimum 90 second long.
        vi) During charging of the BOF Vessels the charge angle shall be no less than 40 degrees and not exceed 55 degrees from vertical as the charge progresses.
        vii) During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor.
        viii) Charging should not be conducted until the associated dampers have been set to charging mode and had time to move to correct position.
        ix) After charging, the vessel shall not be moved to an upright position until online mode has been selected.
        x) The current operating mode on the off charge vessel shall not change from tapping to online or offline, or online to offline mode, until the charge is complete.
        xi) Maintain steel ladle under the tapping hood during kicker addition until the emissions have subsided.
        xii) Tapping should not be conducted until the associated dampers have been set to tapping mode and had time to move to correct position. **(R 336.12051(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

c) In the event of deviation from any work practice requirement, the permittee shall undertake immediate corrective action to address the deviation. The permittee shall keep a written record of each corrective action taken. The permittee shall keep the records on file at the facility and make them available to the department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

23. The permittee shall monitor and record the work practice standards listed in SC VI.22.b using a data control system and work logs. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

24. The permittee shall conduct quarterly visual inspections to confirm the continued presence of physical barriers utilized to assist in maintaining capture efficiency, including shrouds and gap closures. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

25. The permittee shall verify the fan flow conditions for FGBOFSHOP, as specified in the operation and maintenance plan, at least once per calendar year or more frequently as deemed necessary by the AQD District Supervisor. The flow rate verifications will be conducted in the ductwork riser connecting the charge and tap hoods to the main duct connecting it to the baghouse avoiding, to the extent possible, cyclonic flows. If the flow rate verification identifies a need to revise any set points, then Severstal shall update the fan speed and/or damper positions, as necessary, in the operation and maintenance plan as well as all procedures necessary to implement any such new set points. Any changes in the set points are subject to a retest under SC V.5. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

26. The permittee shall verify the damper positions for FGBOFSHOP on a quarterly basis. The permittee shall also inspect and calibrate the damper position to ensure that the actuator is achieving the desired set point for each operating scenario as defined in the operation and maintenance plan. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

27. The permittee shall verify the fan speed/amperage set point for FGBOFSHOP on a quarterly basis, this will include verification of fan speed measurements and calibrations using an independent measurement of the amperage/speed. The permittee shall keep the records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

28. The permittee shall perform preventative maintenance on the EUBOFSHOP ESP and baghouses as specified in the operation and maintenance plan for each control device. **(40 CFR 63.7834(a)(2))**

29. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm, if applicable. **(40 CFR 63.7833(c)(4) and 40 CFR 63.7842(d))**

30. The permittee shall maintain a copy of the current operation and maintenance plans required in SC VI.27 onsite and available for inspection. **(40 CFR 63.7834(b))**

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

2. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

3. The permittee shall provide quarterly reports to MDEQ AQD Detroit Office regarding each instance of Elevated Opacity. The report shall include the relevant visible emissions readings, documentation of compliance with work practice requirements, and identification of all corrective actions taken. The quarterly report shall be provided by the last day of the month following the end of each calendar quarter. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

4. Within 60 days of completing the CFD modeling or other approved method required in V.8, the permittee shall submit a report regarding the evaluation of emission collection equipment to the AQD District Supervisor that will identify whether boundary conditions have materially changed. The report shall state whether equipment or process adjustments are necessary to maintain the minimum capture efficiency indicated by the computational fluid dynamics (CFD) modeling submitted with the 182-05C Application and if so, identify what adjustments are anticipated and identify a schedule for making such adjustments. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFESP	204	213	R 336.1225 R 336.2803, R 336.2804
2. SVBOFBH	222	200	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
FGANNEALFURNACES

DESCRIPTION: 52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building.

Flexible Group ID: FGANNEALFURNACES

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	20% Opacity	6-minute average	FGANNEALFURNACES	GC 13	R 336.1301(1)(c)
2. PM	10 lb/MMscf	Test Protocol*	FGANNEALFURNACES	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM10	10 lb/MMscf	Test Protocol*	FGANNEALFURNACES	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. PM2.5	10 lb/MMscf	Test Protocol*	FGANNEALFURNACES	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. NOx	140 lb/MMscf	Test Protocol*	FGANNEALFURNACES	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Oil shall not be used as fuel in the FGANNEALFURNACES. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall monitor and record, in a satisfactory manner, the total natural gas usage for the FGANNEALFURNACES on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
FGHSMFURNACES123

DESCRIPTION: Three Slab reheat furnaces Nos. 1, 2 and 3 located in the Hot Strip Mill Building.

Emission Units: EUREHEATFURN1, EUREHEATFURN2, EUREHEATFURN3

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	20%	6-minute average	FGHSMFURNACES123	GC 13	R 336.1301(1)(c)
2. PM	10 lb/MMscf	Test Protocol*	FGHSMFURNACES123	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM10	10 lb/MMscf	Test Protocol*	FGHSMFURNACES123	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. PM2.5	10 lb/MMscf	Test Protocol*	FGHSMFURNACES123	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. NOx	0.11 lb/MMBtu	Test Protocol*	FGHSMFURNACES123	SC V.1	R 336.1205(1)(a) & (b) R 336.1801 R 336.2801(ee) R 336.2802(4)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Oil shall not be used as fuel in the FGHSMFURNACES123. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify NOx emission rates from a representative reheat furnace from FGHSMFURNACES123 by testing at owner's expense, in accordance with Department requirements once every ROP renewal period. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(1)(a) & (b), R 336.1801, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall monitor and record, in a satisfactory manner, the total natural gas usage for the FGHSMFURNACES123 on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHSMREHEAT1-S	168	208	R 336.1225 R 336.2803, R 336.2804
2. SVHSMREHEAT1-N	168	208	R 336.1225 R 336.2803, R 336.2804
3. SVHSMREHEAT2-S	168	208	R 336.1225 R 336.2803, R 336.2804
4. SVHSMREHEAT2-N,	168	208	R 336.1225 R 336.2803, R 336.2804
5. SVHSMREHEAT3-S	168	208	R 336.1225, R 336.2803, R 336.2804
6. SVHSMREHEAT3-N	168	208	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
FG-ENG2007>500

DESCRIPTION: Two SI engines at a major source greater than 500 horsepower.

Emission Units: EU-ENGCBFTC, EU-ENGCBFHS

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_x	3.04 pph	Test Protocol*	EU-ENGCBFTC of FG-ENG2007>500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
2. NO_x	4.58 pph	Test Protocol*	EU-ENGCBFHS of FG-ENG2007>500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas, in FG-ENG2007>500. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FG-ENG2007>500 for more than 500 hours per year per engine on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

2. The permittee shall install, maintain, and operate each engine in FG-ENG2007>500 according to the manufacturer written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine in FG-ENG2007>500 with non-resettable hours meters to track the operating hours. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

2. The nameplate capacity of each engine in FG-ENG2007>500 shall not exceed the following horsepower, as certified by the equipment manufacturer:

   a. EU-ENGCBFTC – 530 hp

   b. EU-ENGCBFHS – 800 hp

   (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall monitor and record, the hours of operation of each engine in FG-ENG2007>500, on a monthly and 12- month rolling time period basis, in a manner that is acceptable to the District Supervisor, Air Quality Division. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-ENGCBFTC[1]	5.9	35	R 336.1225, R 336.2803, R 336.2804,
2. SV-ENGCBFHS[1]	9.8	40	R 336.1225, R 336.2803, R 336.2804,
[1] – Stack is capped			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, as they apply to FG-ENG2007>500. **(40 CFR, Part 63, Subparts A and ZZZZ)**

The following conditions apply to:
FG-ENG2007<500

DESCRIPTION: Four SI engines at a major source less than 500 horsepower and limited use.
Emission Units: EU-ENGCBFBS, EU-ENGWSAC, EU-ENGCBFDM, and EU-ENGCBFGS

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_x	9.91 pph	Test Protocol*	EU-ENGCBFBS of FG-ENG2007<500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
2. NO_x	9.91 pph	Test Protocol*	EU-ENGWSAC of FG-ENG2007<500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
3. NO_x	7.70 pph	Test Protocol*	EU-ENGCBFDM of FG-ENG2007<500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. NO_x	1.64 pph	Test Protocol*	EU-ENGCBFGS of FG-ENG2007<500	GC 13	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
*Test Protocol will specify averaging time.					

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas, in FG-ENG2007<500. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FG-ENG2007<500 for more than 500 hours per year per engine on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

2. The permittee shall install, maintain, and operate each engine in FG-ENG2007<500 according to the manufacturer written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine in FG-ENG2007<500 with non-resettable hours meters to track the operating hours. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

2. The nameplate capacity of each engine in FG-ENG2007<500 shall not exceed the following horsepower, as certified by the equipment manufacturer:

   a. EU-ENGCBFBS – 250 hp

   b. EU-ENGWSAC – 250 hp

   c. EU-ENGCBFDM – 145 hp

   d. EU-ENGCBFGS – 95 hp

   (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall monitor and record, the hours of operation of each engine in FG-ENG2007<500, on a monthly and 12- month rolling time period basis, in a manner that is acceptable to the District Supervisor, Air Quality Division. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-ENGCBFBS[1]	5.9	35	R 336.1225, R 336.2803, R 336.2804,
2. SV-ENGWSAC[2]	3.9	16	R 336.1225, R 336.2803, R 336.2804,
3. SV-ENGCBFDM[1]	16.1	20	R 336.1225, R 336.2803, R 336.2804,
4. SV-ENGCBFGS[2]	5.9	10	R 336.1225, R 336.2803, R 336.2804,
[1] – Stack is capped [2] – Stack is horizontal			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, as they apply to FG-ENG2007<500. **(40 CFR, Part 63, Subparts A and ZZZZ)**

2. The permittee shall comply with all provisions of the New Source Performance Standards, as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, for Spark Ignition Stationary Reciprocating Internal Combustion Engines, as they apply to FG-ENG2007<500. **(40 CFR Part 60, Subparts A and JJJJ)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to:
FGORDERS

DESCRIPTION: Facility wide restrictions per consent orders

Emission Units:

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The conditions contained in this permit for which a Consent Order is the only identified applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of the conditions as the date upon which the Termination Order is signed by the Chief of the Air Quality Division or by an authorized U.S Environmental Protection Agency representative. **(R 336.1201(3))**

2. The conditions contained in this permit for which a Consent Judgment or Consent Decree is the only identified applicable requirement shall be considered null and void upon the effective date of termination of the Consent Judgment or Decree. The effective date of termination is defined for the purposes of the conditions as the date upon which a Stipulation and Order for Termination is signed by a Circuit Court Judge or by a United States District Court Judge or Magistrate Justice. **(R 336.1201(3))**

APPENDIX 1.3

Monitoring Requirements

1.3.1 SO_2 Monitoring Continuous Emission Rate Monitoring System (CERMS) Requirements for EUBFURNACE

1. Within 30 calendar days after commencement of trial operation, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CERMS.

2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CERMS to the AQD for approval.

3. Within 180 calendar days after commencement of trial operation, the permittee shall complete the installation and testing of the CERMS.

4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
SO_2	2
CERMS	6

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13, PS 2 and PS 6 of Appendix B to 40 CFR Part 60.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CERMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:

   a. A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. SO_2	71.9 pph	Based on a calendar day average	EUBFURNACE baghouse stack
2. SO_2	38.75 pph	Based on a calendar day average	EUBFURNACE stove stack
3. SO_2	77.8 pph	Based on a calendar day average	Total of EUBFCASTHOUSE

   b. A report of all periods of CERMS downtime and corrective action.

   c. A report of the total operating time of each of the EUBFURNACE and EUBFCESTOVE during the reporting period.

   d. A report of any periods that the CERMS exceeds the instrument range.

   e. If no exceedances or CERMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

1.3.2 SO_2 Monitoring Continuous Emission Rate Monitoring System (CERMS) Requirements for EUCFURNACE

1. For EUCFURNACE, within 60 calendar days of the issuance of this permit, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CERMS.

2. For EUCFURNACE, within 150 calendar days of the issuance of this permit, the permittee shall submit two copies of a complete test plan for the CERMS to the AQD for approval.

3. For EUCFURNACE, within 180 calendar days of the issuance of this permit, the permittee shall complete the installation and testing of the CERMS.

4. For EUCFURNACE, within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
SO_2	2
CERMS	6

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13, PS 2 and PS 6 of Appendix B to 40 CFR Part 60.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CERMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:

   a. A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. SO_2	179.7 pph	Based on a calendar day average	EUCFURNACE baghouse stack
2. SO_2	193.6 pph	Based on a calendar day average	EUCFURNACE stove stack
3. SO_2	271.4 pph	Based on a calendar day average	Total of EUCFURNACE

   b. A report of all periods of CERMS downtime and corrective action.

   c. A report of the total operating time of each of the EUCFURNACE and EUCFCESTOVE during the reporting period.

   d. A report of any periods that the CERMS exceeds the instrument range.

   e. If no exceedances or CERMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

1.3.3 Continuous Opacity Monitoring System (COMS) Requirements

1. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the COMS complies with the requirements of Performance Specification (PS) 1.

2. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

3. The COMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 1 of Appendix B, 40 CFR Part 60.

4. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD.

5. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:

   a. A report of each exceedance above the hourly average limits as specified in the MACT regulations, Section 63.7833(e) and (g). This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

   b. A report of all periods of COMS downtime and corrective action.

   c. A report of the total operating time of the EUBOF during the reporting period.

   d. If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

APPENDIX 1.7 Emission Calculations

Any changes proposed to this Appendix shall be submitted to the AQD Southeast Michigan District Office and approved, in writing, before the change is implemented.

EURELADLINGBOF ROOF MONITOR SC VI.6

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EURELADLINGBOF SC VI.6:

The calculations for equipment controlled by EUBOF secondary baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 0.0038 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 2.17E-3 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 1.10E-3 lb PM2.5/ton / 2,000 lb/ton

EUBOFDESULF ROOF MONITOR SC VI.15

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOFDESULF SC VI.15:

The calculations for equipment controlled by EUDESULFURIZTION baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.0763 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.0147 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.00858 lb PM2.5/ton / 2,000 lb/ton

EUBOF ESP STACK SC VI.33

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOF SC VI.33:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

NOx

NOx Monthly EUBOF ESP stack emissions =
Monthly steel throughput (ton/month) x 0.08 lb NOx/ton / 2,000 lb/ton

EUBOF ROOF MONITOR SC VI.34

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOF SC VI.34:

The calculations for equipment controlled by EUBOF baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.0184 lb PM/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.0184 lb PM/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.0120 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.00834 lb PM10/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.00828 lb PM10/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.00559 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.00687 lb PM2.5/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.00681 lb PM2.5/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.00271 lb PM2.5/ton / 2,000 lb/ton

FGB&CFURNACES BAGHOUSE STACK SC VI.3

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.3:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0456 lb PM/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0416 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0567 lb PM10/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0547 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0567 lb PM2.5/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0547 lb PM2.5/ton / 2,000 lb/ton

NOx

NOx Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly combined casthouse throughput (ton/month) x 0.00588 lb NOx/ton / 2,000 lb/ton +
Monthly natural gas suppression usage combined (MMSCF/month) x 140 lb/MMSCF/2,000 lb/ton

VOC

VOC Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly combined casthouse throughput (ton/month) x 0.0298 lb VOC/ton / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 2.424E-5 lb Pb/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 2.296E-5 lb Pb/ton / 2,000 lb/ton

Mn

Mn Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 1.333E-4 lb Mn/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 1.258E-4 lb Mn/ton / 2,000 lb/ton

FGB&CFURNACES STOVE STACKS SC VI.5

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.5:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 1.9 lb PM/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 1.28 lb PM/MMSCF / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 7.6 lb PM10/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 3.58 lb PM10/MMSCF / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 7.6 lb PM2.5/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 3.58 lb PM2.5/MMSCF / 2,000 lb/ton

NOx

NOx Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 140 lb NOx/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 13.57 lb NOx/MMSCF / 2,000 lb/ton

CO

CO Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 84 lb CO/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 328.9 lb CO/MMSCF / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 5E-4 lb Pb/MMSCF / 2,000 lb/ton +
0.03557 mg/m^3 x BFG usage (MMSCF/month) x 0.002096 lb/MMSCF x 1 ton/2,000 lb

Mn

Mn Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 3.8E-4 lb Mn/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 2.31E-3 lb Mn/MMSCF / 2,000 lb/ton

Hg

Hg Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 2.6E-4 lb Hg/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 5.43E-4 lb Hg/MMSCF / 2,000 lb/ton

FGB&CFURNACES ROOF MONITOR SC VI.4

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.4:

The calculations for equipment controlled by FGB&CFURNACES baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.0167 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.009 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.00438 lb PM2.5/ton / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 2.65E-5 lb Pb/ton / 2,000 lb/ton

Mn

Mn Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 1.55E-4 lb Mn/ton / 2,000 lb/ton

FGBOFSHOP SECONDARY BAGHOUSE STACK SC VI. 20

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGBOFSHOP SC VI. 20:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

NOx

NOx Monthly FGBOFSHOP secondary baghouse stack emissions =
Monthly steel production rate (ton/month) x 0.02 lb NOx/ton / 2,000 lb/ton