MAJOR SOURCE OPERATING PERMIT

PERMITTEE:	FERROGLOBE USA METALLURGICAL, INC
FACILITY NAME:	FERROGLOBE USA METALLURGICAL, INC
FACILITY/PERMIT NO.:	104-0001
LOCATION:	SELMA, ALABAMA

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

ISSUANCE DATE:	**September 10, 2020**
EFFECTIVE DATE:	**September 11, 2020**
MODIFICATION DATE:	**November 22, 2024**
EXPIRATION DATE:	**September 10, 2025**

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1. **Transfer**	
This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.	Rule 335-3-16-.02(6)
2. **Renewals**	
An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.	Rule 335-3-16-.12(2)
The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.	
3. **Severability Clause**	
The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivisions, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.	Rule 335-3-16-.05(e)
4. **Compliance**	
(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.	Rule 335-3-16-.05(f)
(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.	Rule 335-3-16-.05(g)

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5. **Termination for Cause**	
This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-16-.05(h)
6. **Property Rights**	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
7. **Submission of Information**	
The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-16-.05(j)
8. **Economic Incentives, Marketable Permits, and Emissions Trading**	
No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-16-.05(k)
9. **Certification of Truth, Accuracy, and Completeness:**	
Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-16-.07(a)
10. **Inspection and Entry**	
Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized	Rule 335-3-16-.07(b)

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representatives of the Alabama Department of Environmental Management and EPA to conduct the following: (a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.	
11. **Compliance Provisions** (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	Rule 335-3-16-.07(c)
12. **Compliance Certification** A compliance certification shall be submitted annually within 60 days of the anniversary date of issuance of this permit. (a) The compliance certification shall include the following: (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status;	Rule 335-3-16-.07(e)

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(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recording Keeping Requirements); (4) Whether the method(s) or other means used to assure compliance provided continuous or intermittent data; (5) Such other facts as the Department may require to determine the compliance status of the source; (b) The compliance certification shall be submitted to: Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13. **Reopening for Cause** Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit: (a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire. (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans	Rule 335-3-16-.13(5)

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shall be deemed to be incorporated into this permit. (c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	
14. **Additional Rules and Regulations** This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.	§22-28-16(d), Code of Alabama 1975, as amended
15. **Equipment Maintenance or Breakdown** (a) In case of shutdown of air pollution control equipment for scheduled maintenance, the intent to shut down shall be reported to the Department at least 24 hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. The Department shall be notified when maintenance on the air pollution control equipment is complete and the equipment is operating. (1) Identification of the specific facility to be taken out of service as well as its location and permit number; (2) The expected length of time that the air pollution control equipment will be out of service; (3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period; (4) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period; (5) The reasons that it would be impossible or impractical to shut down the source operation	Rule 335-3-1-.07(1),(2)

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during the maintenance period.	
(b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director will be notified when the breakdown has been corrected.	
16. **Operation of Capture and Control Devices**	
All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.	§22-28-16(d), Code of Alabama 1975, as amended
17. **Obnoxious Odors**	
This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.	Rule 335-3-1-.08
18. **Fugitive Dust**	
(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.	Rule 335-3-4-.02
(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne:	
(1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;	

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(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; or (5) By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface.	
19. **Additions and Revisions** Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.	Rule 335-3-16-.13 and .14
20. **Recordkeeping Requirements** (a) Records of required monitoring information of the source shall include the following: (1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; (5) The results of all analyses; and (6) The operating conditions that existed at the time of sampling or measurement. (b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by	Rule 335-3-16-.05(c)2.

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the permit.	
21. **Reporting Requirements**	
(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).	Rule 335-3-16-.05(c)3.
(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22. **Emission Testing Requirements**	
Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.	Rule 335-3-1-.05(3) Rule 335-3-1-.04(1)
The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.	
To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:	
(a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	
(b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures requires probe	

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cleaning). (c) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity. (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances. A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis. All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.	
23. **Payment of Emission Fees** Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code r. 335-1-7-.04.	Rule 335-1-7-.04
24. **Other Reporting and Testing Requirements** Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.	Rule 335-3-1-.04(1)
25. **Title VI Requirements (Refrigerants)** Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F. No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device	40 CFR Part 82

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except as provided in 40 CFR Part 82, Subpart F. The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.	
26. **Chemical Accidental Prevention Provisions** If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then: (a) The owner or operator shall comply with the provisions in 40 CFR Part 68. (b) The owner or operator shall submit one of the following: (1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.	40 CFR Part 68
27. **Display of Permit** This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will make the permit readily available for inspection by any or all persons who may request to see it.	Rule 335-3-14-.01(1)(d)
28. **Circumvention** No person shall cause or permit the installation or use of any device or any means which, without resulting in the reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.	Rule 335-3-1-.10
29. **Visible Emissions** Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any	Rule 335-3-4-.01(1)

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source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.	
30. **Fuel-Burning Equipment**	
(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.03.	Rule 335-3-4-.03
(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Rule 335-3-5-.01.	Rule 335-3-5-.01
31. **Process Industries – General**	
Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.04.	Rule 335-3-4-.04
32. **Averaging Time for Emission Limits**	
Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.	Rule 335-3-1-.05
33. **Compliance Assurance Monitoring (CAM)**	
Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.	
(a) Operation of Approved Monitoring	40 CFR 64.7
(1) *Commencement of operation*. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).	
(2) *Proper maintenance*. At all times, the owner or operator shall maintain the monitoring,	

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including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. (3) *Continued operation*. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. (4) *Response to excursions or exceedances.* (i) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).	

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Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (ii) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. (5) *Documentation of need for improved monitoring*. After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.	
(b) Quality Improvement Plan (QIP) Requirements	40 CFR 64.8
(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and	

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implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

(2) Elements of a QIP:

(i) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

(ii) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(I) Improved preventive maintenance practices.

(II) Process operation changes.

(III) Appropriate improvements to control methods.

(IV) Other steps appropriate to correct control performance.

(V) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(ii)(I) through (IV) above).

(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the

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period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. (4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have: (i) Failed to address the cause of the control device performance problems; or (ii) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. (5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.	
(c) Reporting and Recordkeeping Requirements	40 CFR 64.9
(1) *General reporting requirements* On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code r. 335-3-16-.05(c)3. A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code r. 335-3-16-.05(c)3. and the following information, as applicable: (i) Summary information on the number, duration and cause (including unknown	

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cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and (iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. (2) *General recordkeeping requirements* (i) The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code r. 335-3-16-.05(c)2. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (ii) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable	

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recordkeeping requirements.	
(d) Savings Provisions	40 CFR 64.10
(1) Nothing in this part shall:	
(i) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.	
(ii) Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.	
(iii) Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.	

Summary Page for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Silicon Metal)

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	PM	The Greater of: 0.99 lb/MW or Process Weight (see general proviso 31 for process weight)	Rule 335-3-4-.04 40 CFR §60.262(a)(1) Rule 335-3-10-.01(2)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	CO	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	NO_x	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	SO_2	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	VOC	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	HAPs	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	Opacity	(see general proviso 29)	Rule 335-3-4-.01

Provisos for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Silicon Metal)

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Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. This source is subject to an emission standard in 40 CFR Part 60, Subpart Z, "*Standards of Performance for Ferroalloy Production Facilities*". This source is not subject to other standards in 40 CFR Part 60, Subpart Z.	40 CFR §60.260(a) Rule 335-3-10-.01(2)
5. For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, "*Compliance Assurance Monitoring*", to include General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from this unit shall not exceed the greater of 0.99 lb per Megawatt-hr or the allowable as set by Rule 335-3-4-.04.	Rule 335-3-10-.01(2) Rule 335-3-4-.04 40 CFR §60.262(a)(1)
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an equivalent method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. Reference the Appendix for the monitoring requirements for 40 CFR Part 64, "*Compliance Assurance Monitoring*".	40 CFR Part 64
2. The facility shall perform a weekly visual check of the furnace	Rule 335-3-16-.05(c)

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building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	
3. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse. The following activities shall be performed: (a) Once per day check the furnace and tap hoods for fugitive emissions. (b) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
4. The facility shall perform a weekly inspection of the furnace baghouse to verify proper operation. The following activities shall be performed: (a) The baghouse shall be inspected weekly for damaged bags, air leaks, water infiltration, caking or blinding of bags, proper cleaning function and cycling. Maintenance shall be performed as needed. (b) Once per week a visual check of all hoods and ductwork. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
5. The facility shall perform annual inspections of the main baghouse to verify proper operation. The following activities shall be performed: (a) Internal inspection of structure, access doors and bags. (b) Internal inspection of all hoppers. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements 1. The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring and Compliance Assurance Monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
2. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
3. The facility shall report any Method 9 observations on the furnace baghouse with a six-minute average opacity over 20%. Such reports shall be made within 48 hours of such observations.	40 CFR Part 64
4. The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64
5. The facility shall maintain a record of all temperature readings for the baghouse performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64

Summary Page for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ & Baghouse #2 (Silicon Metal)

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	PM	The Greater of: 0.99 lb/MW or Process Weight (see general provisos for process weight)	Rule 335-3-4-.04 40 CFR §60.262(a)(1) Rule 335-3-10-.01(2)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	CO	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	NO_x	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	SO_2	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	VOC	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	HAPs	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	Opacity	(see general provisos)	Rule 335-3-4-.01

Provisos for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ Baghouse #2 (Silicon Metal)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. This source is subject to an emission standard in 40 CFR Part 60, Subpart Z, "*Standards of Performance for Ferroalloy Production Facilities*". This source is not subject to other standards in 40 CFR Part 60, Subpart Z.	40 CFR §60.260(a) Rule 335-3-10-.01(2)
5. For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, "*Compliance Assurance Monitoring*", to include General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from this unit shall not exceed the greater of 0.99 lb per Megawatt-hr or the allowable as set by Rule 335-3-4-.04.	Rule 335-3-10-.01(2) Rule 335-3-4-.04 40 CFR §60.262(a)(1)
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an alternative method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. Reference the Appendix for the monitoring requirements for 40 CFR Part 64, "*Compliance Assurance Monitoring.*"	40 CFR Part 64
2. The facility shall perform a weekly visual check of the furnace	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	
3. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse. The following activities shall be performed: (a) Once per day check the furnace and tap hoods for fugitive emissions. (b) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
4. The facility shall perform a weekly inspection of the furnace baghouse to verify proper operation. The following activities shall be performed: (a) The baghouse shall be inspected weekly for damaged bags, air leaks, water infiltration, caking or blinding of bags, proper cleaning function and cycling. Maintenance shall be performed as needed. (b) Once per week a visual check of all hoods and ductwork. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
5. The facility shall perform annual inspections of the main baghouse to verify proper operation. The following activities shall be performed: (a) Internal inspection of structure, access doors and bags. (b) Internal inspection of all hoppers. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring and Compliance Assurance Monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
2. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
3. The facility shall report any Method 9 observations on the furnace baghouse with a six-minute average opacity over 20%. Such reports shall be made within 48 hours of such observations.	40 CFR Part 64
4. The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64
5. The facility shall maintain a record of all temperature readings for the baghouse performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64

Summary Page for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Silicon Metal)

Permitted
Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	Process Weight (see general proviso 31)	Rule 335-3-4-.04
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	Opacity	(see general proviso 29)	Rule 335-3-4-.01
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	Process Weight (see general proviso 31)	Rule 335-3-4-.04
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	Opacity	(see general proviso 29)	Rule 335-3-4-.01

Provisos for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Silicon Metal)

Federally Enforceable Provisos	Regulations
Applicability	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions".*	Rule 335-3-4-.01
3. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General".*	Rule 335-3-4-.04
Emission Standards	
1. Visible emissions from these sources shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate emissions from these sources shall not exceed the allowable set by Rule 335-3-4-.04(1).	Rule 335-3-4-.04
Compliance and Performance Test Methods and Procedures	
1. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions or an alternative method as approved by the Department.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The facility shall perform a visual check, once per week, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
2. The facility shall perform a weekly inspection of the baghouses associated with these units to verify proper operation. The following activities shall be performed:	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
(a) Once per week check the capture hoods associated with this permit for fugitive emissions. (b) Once per month check hopper, fan and cleaning cycle for proper operation. (c) Once per month a visual check of all hoods and ductwork. (d) Record any repairs or observed problems.	
3. The facility shall perform annual inspections of the baghouses to verify proper operation. The following activities shall be performed: (a) Internal inspection of structure, access doors and bags. (b) Internal inspection of all hoppers. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The facility shall maintain a record of all inspections, to include visible observations and Method 9 observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
2. The facility shall report any Method 9 observations with an average opacity over 20%. Such reports shall be made within 48 hours of such observations.	Rule 335-3-16-.05(c)

Summary Page for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Ferromanganese and Silicomanganese)

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	PM	21.7 lbs/hr ferromanganese Or 27.2 lbs/hr silicomanganese	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	PM	The Greater of: 0.51 lb/MW or Process Weight (see general proviso 31 for process weight)	Rule 335-3-4-.04 40 CFR §60.262(a)(2) Rule 335-3-10-.01(2)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	CO	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	NO_x	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	SO_2	Coke - 0.75% Sulfur by weight	Rule 335-3-14-.04 (Anti-PSD)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	VOC	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	HAPs	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1	Opacity	(see general provisos)	Rule 335-3-4-.01

Provisos for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Ferromanganese and Silicomanganese)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. This source is subject to an emission standard in 40 CFR Part 60, Subpart Z, "*Standards of Performance for Ferroalloy Production Facilities*". This source is not subject to other standards in 40 CFR Part 60, Subpart Z.	40 CFR §60.260(a) Rule 335-3-10-.01(2)
5. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart XXX, "*National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese*".	40 CFR §63.1650(b)(1) 40 CFR §63.1650(b)(4) Rule 335-5-11-.06(75)
6. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as specified in Table 1 to 40 CFR Part 63, Subpart XXX.	40 CFR §63.1650(d) Rule 335-3-11-.06(1)
7. This source has an enforceable limit in place in order to avoid being subject to the applicable provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*".	Rule 335-3-14-.04 (Anti-PSD)
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from this unit shall not exceed the greater of 0.51 lb per Megawatt-hr or the allowable as set by Rule 335-3-4-.04.	Rule 335-3-10-.01(2) Rule 335-3-4-.04 40 CFR §60.262(a)(2)

Federally Enforceable Provisos	Regulations
3. Particulate matter emissions from this unit shall not exceed: 9.8 kg/hr (21.7 lbs/hr) when producing ferromanganese in an open furnace operating at a furnace power input of 22 MW or less Or 12.3 kg/hr (27.2 lbs/hr) when producing silicomanganese in an open furnace operating at a furnace power input of 25 MW or less	40 CFR §63.1652(b)(1) 40 CFR §63.1652(b)(4)
4. The Permittee shall not cause emissions exiting from a shop due solely to operations of any affected submerged arc furnace, to exceed 20 percent opacity for more than one 6-minute period during any performance test. Blowing taps, poling, and oxygen lancing of the tap hole; burndowns associated with electrode measurements; and maintenance activities associated with submerged arc furnaces and casting operations are exempt from this opacity standard.	40 CFR §63.1653
5. The sulfur content of the coke utilized in the Submerged Electric Arc Furnace shall not exceed 0.75% by weight.	Rule 335-3-14-.04 (Anti-PSD)
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an equivalent method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The Permittee must observe the baghouse on a daily basis for the presence of any visible emissions and conduct the following activities: (a) Daily monitoring of pressure drop across each baghouse cell, or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan. (b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms. (c) Daily check of the compressed air supply for pulse-jet baghouses. (d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.	40 CFR §63.1657(a)(1) 40 CFR §63.1657(a)(2)

Federally Enforceable Provisos	Regulations
(e) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means. (f) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices. (g) Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks. (h) Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.	
2. The Permittee must develop and implement corrective action procedures (as part of the maintenance plan required by 40 CFR §63.1655(b)) to be followed in the case of an observation of visible emissions from the baghouse or the indication through the periodic baghouse system inspections that the system is not operating properly. The owner or operator must initiate corrective action as soon as practicable after the occurrence of the observation or event indicating a problem.	40 CFR §63.1657(a)(4)-(6)
3. The Permittee must comply with one of the following monitoring options: (a) The owner or operator must check and record the control system fan motor amperes and capture system damper positions once per shift. (b) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. (c) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the inlet of the air pollution control device and must check and record the capture system damper positions once per shift. The selected option must be consistent with that selected during the initial performance test. Failure to maintain the appropriate capture system parameters (fan motor amperes, flow rate, and/or damper positions) establishes the need to initiate corrective action as soon as practicable after the monitoring excursion in order to minimize excess emissions.	40 CFR §63.1657(c)

Federally Enforceable Provisos	Regulations
4. The Permittee must prepare and implement a fugitive dust control plan according to 40 CFR §63.1654(a).	40 CFR §63.1654(a)
5. The Permittee must develop and implement a written maintenance plan for each air pollution control device associated with the submerged arc furnace according to 40 §CFR 63.1655(b) & (c).	40 CFR §63.1655(b) 40 CFR §63.1655(c)
6. The facility shall perform a visual check, once per week, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
7. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
8. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse. The following activities shall be performed: (a) Once per day check the furnace and tap hoods for fugitive emissions. (b) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The Permittee shall comply with the reporting requirements in 40 CFR §63.1659(a) and §63.1659(b)(1,3,4,6(ii)) of Subpart XXX.	40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))
2. The Permittee shall comply with the reporting requirements in 40 CFR §63.10 of Subpart A.	40 CFR §63.1659(a)
3. The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
4. The Permittee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) and §63.1659(a)(4).	40 CFR §63.10(d)(5) 40 CFR §63.1659(a)(4)

Federally Enforceable Provisos	Regulations
5. The Permittee shall comply with the recordkeeping requirements in 40 CFR §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2) of Subpart XXX.	40 CFR §63.1660(a) & §63.1660(b)(1(ii,v,vi,vii),2)
6. The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
7. The facility shall report any Method 9 observations on the furnace baghouse with a six-minute average opacity over 20%. Such reports shall be made within 48 hours of such observations.	Rule 335-3-16-.05(c)
8. The Permittee shall maintain records of the sulfur content from each load received of coke utilized in the Submerged Electric Arc Furnaces. The Permittee may use vendor test data or shipment certifications to verify the sulfur content in the coke.	Rule 335-3-14-.04 (Anti-PSD)

Summary Page for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ & Baghouse #2 (Ferromanganese and Silicomanganese)

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	PM	21.7 lbs/hr ferromanganese Or 27.2 lbs/hr silicomanganese	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	PM	The Greater of: 0.51 lb/MW or Process Weight (see general provisos for process weight)	Rule 335-3-4-.04 40 CFR §60.262(a)(2) Rule 335-3-10-.01(2)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	CO	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	NO_x	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	SO_2	Coke - 0.75% Sulfur by weight	Rule 335-3-14-.04 (Anti-PSD)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	VOC	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	HAPs	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2	Opacity	(see general provisos)	Rule 335-3-4-.01

Provisos for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ Baghouse #2 (Ferromanganese and Silicomanganese)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. This source is subject to an emission standard in 40 CFR Part 60, Subpart Z, "*Standards of Performance for Ferroalloy Production Facilities*". This source is not subject to other standards in 40 CFR Part 60, Subpart Z.	40 CFR §60.260(a) Rule 335-3-10-.01(2)
5. This source is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "*National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese*".	40 CFR §63.1650(b)(1) 40 CFR §63.1650(b)(4) Rule 335-5-11-.06(75)
6. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as specified in Table 1 to 40 CFR Part 63, Subpart XXX.	40 CFR §63.1650(d) Rule 335-3-11-.06(1)
7. This source has an enforceable limit in place in order to avoid being subject to the applicable provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*".	Rule 335-3-14-.04 (Anti-PSD)
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from this unit shall not exceed the greater of 0.51 lb per Megawatt-hr or the allowable as set by Rule 335-3-4-.04	Rule 335-3-10-.01(2) Rule 335-3-4-.04 40 CFR §60.262(a)(2)

Federally Enforceable Provisos	Regulations
3. Particulate matter emissions from this unit shall not exceed: 9.8 kg/hr (21.7 lbs/hr) when producing ferromanganese in an open furnace operating at a furnace power input of 22 MW or less Or 12.3 kg/hr (27.2 lbs/hr) when producing silicomanganese in an open furnace operating at a furnace power input of 25 MW or less	40 CFR §63.1652(b)(1) 40 CFR §63.1652(b)(4)
4. The Permittee shall not cause emissions exiting from a shop due solely to operations of any affected submerged arc furnace, to exceed 20 percent opacity for more than one 6-minute period during any performance test. Blowing taps, poling, and oxygen lancing of the tap hole; burndowns associated with electrode measurements; and maintenance activities associated with submerged arc furnaces and casting operations are exempt from this opacity standard.	40 CFR §63.1653
5. The sulfur content of the coke utilized in the Submerged Electric Arc Furnace shall not exceed 0.75% by weight.	Rule 335-3-14-.04 (Anti-PSD)
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an alternative method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The Permittee must observe the baghouse on a daily basis for the presence of any visible emissions and conduct the following activities: (a) Daily monitoring of pressure drop across each baghouse cell, or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan. (b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms. (c) Daily check of the compressed air supply for pulse-jet baghouses. (d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.	40 CFR §63.1657(a)(1) 40 CFR §63.1657(a)(2)

Federally Enforceable Provisos	Regulations
(e) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means. (f) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices. (g) Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks. (h) Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.	
2. The Permittee must develop and implement corrective action procedures (as part of the maintenance plan required by 40 CFR §63.1655(b)) to be followed in the case of an observation of visible emissions from the baghouse or the indication through periodic baghouse system inspections that the system is not operating properly. The owner or operator must initiate corrective action as soon as practicable after the occurrence of the observation or event indicating a problem.	40 CFR §63.1657(a)(4)-(6)
3. The Permittee must comply with one of the following monitoring options: (a) The owner or operator must check and record the control system fan motor amperes and capture system damper positions once per shift. (b) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. (c) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the inlet of the air pollution control device and must check and record the capture system damper positions once per shift The selected option must be consistent with that selected during the initial performance test. Failure to maintain the appropriate capture system parameters (fan motor amperes, flow rate, and/or damper positions) establishes the need to initiate correction action as soon as practicable after the monitoring excursion in order to minimize excess emissions.	40 CFR §63.1657(c)

Federally Enforceable Provisos	Regulations
4. The Permittee must prepare and implement a fugitive dust control plan according to 40 CFR §63.1654(a).	40 CFR §63.1654(a)
5. The Permittee must develop and implement a written maintenance plan for each air pollution control device associated with the submerged arc furnace according to 40 CFR §63.1655(b) & (c).	40 CFR §63.1655(b) 40 CFR §63.1655(c)
6. The facility shall perform a visual check, once per week, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
7. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
8. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse. The following activities shall be performed: (a) Once per day check the furnace and tap hoods for fugitive emissions. (b) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The Permittee shall comply with the reporting requirements in 40 CFR §63.1659(a) and §63.1659(b)(1,3,4,6(ii)) of Subpart XXX.	40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))
2. The Permittee shall comply with the reporting requirements in 40 CFR §63.10 of Subpart A.	40 CFR §63.1659(a)
3. The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
4. The Permittee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) and §63.1659(a)(4).	40 CFR §63.10(d)(5) & §63.1659(a)(4)

Federally Enforceable Provisos	Regulations
5. The Permittee shall comply with the recordkeeping requirements in 40 CFR §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2).	40 CFR §63.1660(a) & §63.1660(b)(1(ii,v,vi,vii),2)
6. The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
7. The facility shall report any Method 9 observations on the furnace baghouse with a six-minute average opacity over 20%. Such reports shall be made within 48 hours of such observations.	Rule 335-3-16-.05(c)
8. The Permittee shall maintain records of the sulfur content from each load received of coke utilized in the Submerged Electric Arc Furnaces. The Permittee may use vendor test data or shipment certifications to verify the sulfur content in the coke.	Rule 335-3-14-.04 (Anti-PSD)

Summary Page for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Ferromanganese and Silicomanganese)

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	69 mg/dscm (0.03 gr/dscf)	40 CFR §63.1652(e)(2)
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	Process Weight (see general proviso 31)	Rule 335-3-4-.04
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	Opacity	(see general proviso 29)	Rule 335-3-4-.01
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	69 mg/dscm (0.03 gr/dscf)	40 CFR §63.1652(e)(2)
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	Process Weight (see general proviso 31)	Rule 335-3-4-.04
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	Opacity	(see general proviso 29)	Rule 335-3-4-.01

Provisos for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Ferromanganese and Silicomanganese)

Federally Enforceable Provisos	Regulations
Applicability	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. These sources are subject to the applicable requirements of 40 CFR Part 63, Subpart XXX, "*National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese*".	40 CFR §63.1650(b)(7) Rule 335-5-11-.06(75)
5. These sources are subject to the applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as specified in Table 1 to 40 CFR Part 63, Subpart XXX.	40 CFR §63.1650(d) Rule 335-5-11-.06(1)
Emission Standards	
1. Visible emissions from these sources shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from these sources shall not exceed the lesser of 69 mg/dscm (0.03 gr/dscf) or the allowable as set by Rule 335-3-4-.04.	Rule 335-3-4-.04 40 CFR §63.1652(e)(2)
Compliance and Performance Test Methods and Procedures	
1. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions or an alternative method as approved by the Department.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The facility must observe each baghouse on a daily basis for the presence of any visible emissions and conduct the	40 CFR §63.1657(a)(1) 40 CFR §63.1657(a)(2)

Federally Enforceable Provisos	Regulations
following activities: (a) Daily monitoring of pressure drop across each baghouse cell, or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan. (b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms. (c) Daily check of the compressed air supply for pulse-jet baghouses. (d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation. (e) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means. (f) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices. (g) Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks (h) Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.	
2. The Permittee must develop and implement corrective action procedures (as part of the maintenance plan required by 40 CFR §63.1655(b)) to be followed in the case of an observation of visible emissions from the baghouse or the indication through the periodic baghouse system inspections that the system is not operating properly. The owner or operator must initiate corrective action as soon as practicable after the occurrence of the observation or event indicating a problem.	40 CFR §63.1657(a)(4)-(6)
3. The Permittee must prepare and implement a fugitive dust control plan according to 40 CFR 63.1654(a).	40 CFR §63.1654(a)
4. The Permittee must develop and implement a written maintenance plan for each air pollution control device associated with the crushing and screening operations	40 CFR §63.1655(b) 40 CFR §63.1655(c)

Federally Enforceable Provisos	Regulations
according to 40 CFR 63.1655(b) & (c).	
5. The facility shall perform a visual check, once per week, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The Permittee shall comply with the reporting requirements in 40 CFR §63.1659(a) and §63.1659(b)(1,3,4,6(ii)) of Subpart XXX.	40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))
2. The Permittee shall comply with the reporting requirements in 40 CFR §63.10 of Subpart A.	40 CFR §63.1659(a)
3. The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
4. The Permittee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) & §63.1659(a)(4)	40 CFR §63.10(d)(5) & §63.1659(a)(5)
5. The Permittee shall comply with the recordkeeping requirements in §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2) of Subpart XXX.	40 CFR §63.1660(a) & §63.1660(b)(1(ii,v,vi,vii),2)
6. The facility shall maintain a record of all inspections, to include visible observations and Method 9 observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
7. The facility shall report any Method 9 observations with an average opacity over 20%. Such reports shall be made within 48 hours of such observations.	Rule 335-3-16-.05(c)

Summary Page for 20 MW Submerged Arc Furnace Nos. 1 & 2 & Associated Tapping Operation w/ Baghouse Nos. 1 & 2 (Ferrosilicon 75%)

Permitted
Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	PM	The Greater of: 0.99 lb/MW or Process Weight (see general provisos for process weight)	Rule 335-3-4-.04 40 CFR §60.262(a)(1) Rule 335-3-10-.01(2)
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	CO	N/A	N/A
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	NO_x	N/A	N/A
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	SO_2	N/A	N/A
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	VOC	N/A	N/A
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	HAPs	N/A	N/A
EP001 & EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse Nos. 1 & 2	Opacity	(see general proviso 29)	Rule 335-3-4-.01

Provisos for 20 MW Submerged Arc Furnace Nos. 1 & 2 & Associated Tapping Operation w/ Baghouse Nos. 1 & 2 (Ferrosilicon 75%)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04, "*Control of Particulate Emissions – Process Industries – General*".	Rule 335-3-4-.04
4. This source is subject to an emission standard in 40 CFR Part 60, Subpart Z, "*Standards of Performance for Ferroalloy Production Facilities*". This source is not subject to other standards in 40 CFR Part 60, Subpart Z.	40 CFR §60.260(a) Rule 335-3-10-.01(2)
5. For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, "*Compliance Assurance Monitoring*", to include General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. Particulate matter emissions from this unit shall not exceed the greater of 0.99 lb per Megawatt-hr or the allowable as set by Rule 335-3-4-.04.	Rule 335-3-10-.01(2) Rule 335-3-4-.04 40 CFR §60.262(a)(1)
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an alternative method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The following monitoring requirements shall be met:	Rule 335-3-16-.05(c)
(a) Daily visual inspection of the baghouse for visible emissions greater than 10% opacity. An excursion shall trigger an	

Federally Enforceable Provisos	Regulations
inspection, corrective action, and report of the excursions. If the excursion is not corrected within one (1) hour, a Method 9 observation shall be conducted within four (4) hours of the observation. (b) Differential pressure across the baghouse shall be monitored and maintained between 3.0 inches of water and 16.0 inches of water. The pressure drop should be continuously recorded. Excursions shall trigger an inspection, corrective action, and report of the excursion. The pressure gauge shall be calibrated and maintained per manufacturer's specifications or at least annually, whichever is more frequent. (c) Temperature at the baghouse inlet shall be maintained at a temperature less than that of 525 °F and should be continuously recorded. Excursions shall trigger an inspection, corrective action, and a report of the excursion. The temperature gauge shall be calibrated and maintained per manufacturer's specifications or at least annually, whichever is more frequent.	
2. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted at any time and are not corrected within a period of 1 hour, then a Method 9 observation must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-16-.05(c)
3. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse. The following activities shall be performed: (d) Once per day check the furnace and tap hoods for fugitive emissions. (e) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
4. The facility shall perform a weekly inspection of the furnace baghouse to verify proper operation. The following activities shall be performed: (a) The baghouse shall be inspected weekly for damaged bags, air leaks, water infiltration, caking or blinding of bags, proper cleaning function and cycling. Maintenance shall be performed as needed. (b) Once per week a visual check of all hoods and ductwork.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
(c) Record any repairs or observed problems.	
5. The facility shall perform the following annual inspections of the main baghouse to verify proper operation. The following activities shall be performed: (a) Internal inspection of structure, access doors and bags. (b) Internal inspection of all hoppers. (c) Record any repairs or observed problems.	Rule 335-3-16-.05(c)
Recordkeeping and Reporting Requirements	
1. The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring and Compliance Assurance Monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
2. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
3. The facility shall report any Method 9 observations on the furnace baghouse with a six-minute average opacity over 20%. Such reports shall be made within 48 hours of such observations.	Rule 335-3-16-.05(c)
4. The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
5. The facility shall maintain a record of all temperature readings for the baghouse performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-16-.05(c)
6. The facility shall maintain records on site, in a form suitable for inspection, annual emission reports tracking any NO_X and SO_2 emissions associated with the project for the next 5 years to ensure that the projected actual emissions are accurate. The first report shall be generated 12 months after production of FeSi 75% begins.	Rule 335-3-14-.04

Summary Page for Product Handling

Permitted Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
F008	Fugitives from the Storage Bin Loading, Microsilica Bagging, and Rail Car Loading	PM	N/A	N/A

Provisos for Product Handling

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
Emission Standards	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Compliance and Performance Test Methods and Procedures	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Emission Monitoring	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Recordkeeping and Reporting Requirements	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A

Summary Page for NSPS Subpart IIII – Compression Ignition Emergency Generator

Permitted
Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP05	Diesel Fired Compression Ignition Emergency Generator	PM	See Table 1 to 40 CFR Part 60, Subpart IIII	40 CFR Part 60 Subpart IIII
		SO_2	N/A	N/A
		NO_X	See Table 1 to 40 CFR Part 60, Subpart IIII	40 CFR Part 60 Subpart IIII
		CO	See Table 1 to 40 CFR Part 60, Subpart IIII	40 CFR Part 60 Subpart IIII
		VOC	N/A	N/A
		Opacity	See General Provisos	Rule 335-3-4-.01(1)

Provisos for NSPS Subpart IIII – Compression Ignition Emergency Generator

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of 40 CFR Part 60, Subpart IIII, "*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*".	40 CFR §60.4200(a)(2)(i) Rule 335-3-10-.02(87)
4. This source is subject to the applicable requirements of 40 CFR Part 60, Subpart A, "*General Provisions*" as listed in Table 8 to Subpart IIII.	40 CFR §60.4218 Rule 335-3-10-.02(1)
5. This source must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines.	40 CFR §63.6590(c)(6) Rule 335-3-11-.06(103)
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. This unit is subject to the applicable emission standards listed in Table 1 to 40 CFR Part 60, Subpart IIII and 40 CFR §60.4202(a)(2).	40 CFR §60.4205(b)
3. The Permittee must operate and maintain this unit according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.	40 CFR §60.4206
4. This unit must use diesel fuel that meets the requirements of 40 CFR §80.510(b).	40 CFR §60.4207(b)
5. The Permittee must install a non-resettable hour meter prior to startup of the engine.	40 CFR §60.4209(a)
6. This unit must be certified according to 40 CFR Part 60 Subpart IIII for the same model year and maximum engine power.	40 CFR §60.4211(c)
7. This unit must be installed and configured according to the	40 CFR §60.4211(a) &

Federally Enforceable Provisos	Regulations
manufacturer's specifications.	§60.4202(b)(2)
8. This unit may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of this unit is limited to 100 hours per year. There is no time limit on the use of these units in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year . This unit may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 60 Subpart IIII, is prohibited.	40 CFR §60.4211(f)
Compliance and Performance Test Methods and Procedures	
1. Method 9 of40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate emissions.	Rule 335-3-1-.05
3. Method 7E of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of NO_x emissions.	Rule 335-3-1-.05
4. Method 10 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of CO emissions.	Rule 335-3-1-.05
Emission Monitoring	
1. This source is subject to no additional specific requirements other than those listed in the General Provisos.	N/A
Recordkeeping and Reporting Requirements	
1. This source is subject to no additional specific requirements other than those listed in the General Provisos.	N/A

Summary Page for MACT Subpart ZZZZ – Existing Emergency Generator

Permitted
Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP06	Existing Emergency Generator (Subject to only Subpart ZZZZ)	PM	N/A	N/A
		SO_2	N/A	N/A
		NO_x	N/A	N/A
		CO	N/A	N/A
		VOC	N/A	N/A
		HAPs	Work Practice Standards	40 CFR §63.6602
		Opacity	See General Provisos	Rule 335-3-4-.01(1)

Provisos for MACT Subpart ZZZZ – Existing Emergency Generator

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permits*".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, "*National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)*".	40 CFR §63.6585(b) Rule 335-3-11-.06(103)
4. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as listed in Table 8 to Subpart ZZZZ.	40 CFR §63.6665 Rule 335-3-11-.06(1)
Emission Standards	
1. Visible emissions from this source shall not exceed the opacity set by Rule 335-3-4-.01(1).	Rule 335-3-4-.01
2. This unit is subject to the applicable requirements listed in Table 2c to 40 CFR Part 63, Subpart ZZZZ.	40 CFR §63.6602
3. The Permittee must operate and maintain this unit according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	40 CFR §63.6625(e)(2)
4. The Permittee must install a non-resettable hour meter for each unit if one is not already installed.	40 CFR §63.6625(f)
5. This unit may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There is no time limit on the use of this unit in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency	40 CFR §63.6640(f)(1)

Federally Enforceable Provisos	Regulations
ICE beyond 100 hours per year . This unit may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 63 Subpart ZZZZ, is prohibited.	
Compliance and Performance Test Methods and Procedures	
1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.05
Emission Monitoring	
1. The Permittee shall perform the following activities: (a) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or (b) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	40 CFR Part 63, Subpart ZZZZ, Table 6(9)
2. If an oil analysis program is utilized for a stationary compression ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceed, the Permittee must change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later.	40 CFR §63.6625(i)
Recordkeeping and Reporting Requirements	
1. The Permittee must keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.	40 CFR §63.6625(i) & (j)

Federally Enforceable Provisos	Regulations
2. The Permittee must keep records of the maintenance conducted on this unit in order to demonstrate that you operated and maintained these units and after-treatment control device (if any) according to your own maintenance plan.	40 CFR §63.6655(e)
3. The Permittee must keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The facility must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.	40 CFR §63.6655(f)

APPENDIX CAM

Compliance Assurance Monitoring Requirements

CAM Plan for 20 MW EAF No. 1 and Associated Tapping Operation with Baghouse No. 1 (Silicon Metal)

	Indicator 1	Indicator 2	Indicator 3
I. Measurement Approach	Trained and qualified personnel will do a visible inspection.	Measured using a pressure gauge.	Measured using a temperature gauge.
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement. If an excursion is noted and not corrected within a period of (1) one hour, then a method 9 must be performed within (4) four hours of the observation.	While the unit is operating, an excursion is defined as a pressure differential below 3.0 inches of H_2O or greater than 16.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a temperature that is above 525 ºF. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			
1. Data Representativeness	Measurement is being made at the emission point (baghouse exhaust).	The pressure differential is being measured between the inlet and outlet of the baghouse.	The temperature is being measured at the inlet to the baghouse.
2. Verification of Operation Status	Not Applicable	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	Qualified personnel will perform the visible inspection.	The pressure gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.	The temperature gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.
4. Monitoring Frequency	The visible inspection will be performed daily.	The pressure drop will be monitored continuously.	The temperature will be monitored continuously.
5. Data Collection Procedures	The visible inspection will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, and date by an acquisition handling system.	The temperature will be recorded with the time and date by a data acquisition handling system.
6. Averaging Period	Instantaneous	Nine (9) Minute Average	Nine (9) Minute Average

CAM Plan for 20 MW EAF No. 2 and Associated Tapping Operation with Baghouse No. 2 (Silicon Metal)

	Indicator 1	Indicator 2	Indicator 3
I. Measurement Approach	Trained and qualified personnel will do a visible inspection.	Measured using a pressure gauge.	Measured using a temperature gauge.
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement. If an excursion is noted and not corrected within a period of (1) one hour, then a method 9 must be performed within (4) four hours of the observation.	While the unit is operating, an excursion is defined as a pressure differential below 3.0 inches of H_2O or greater than 16.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a temperature that is above 525 ºF. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			
1. Data Representativeness	Measurement is being made at the emission point (baghouse exhaust).	The pressure differential is being measured between the inlet and outlet of the baghouse.	The temperature is being measured at the inlet to the baghouse.
2. Verification of Operation Status	Not Applicable	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	Qualified personnel will perform the visible inspection.	The pressure gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.	The temperature gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.
4. Monitoring Frequency	The visible inspection will be performed daily.	The pressure drop will be monitored continuously.	The temperature will be monitored continuously.
5. Data Collection Procedures	The visible inspection will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, and date by an acquisition handling system.	The temperature will be recorded with the time and date by a data acquisition handling system.
6. Averaging Period	Instantaneous	Nine (9) Minute Average	Nine (9) Minute Average