

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

**Eramet Marietta Inc.
Marietta, OH**

Proceedings Pursuant to
the Clean Air Act,
42 U.S.C. §§ 7401 *et seq.*

)
)
)
)
)
)
)

**NOTICE and FINDING OF
VIOLATION**

EPA-5-23-OH-03

NOTICE and FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation under Section 113(a) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a). EPA finds that Eramet Marietta Inc. (Eramet) is violating Section 112 of the CAA, 42 U.S.C. § 7412, and the Ohio State Implementation Plan (SIP). Specifically, Eramet is violating the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Ferroalloys Production: Ferromanganese and Silicomanganese at 40 C.F.R. Part 63, Subpart XXX (Subpart XXX), and the Ohio SIP as follows:

Statutory and Regulatory Background

1. Section 112 of the CAA, 42 U.S.C. § 7412, requires EPA to promulgate a list of all categories and subcategories of new and existing “major sources” and “area sources” of hazardous air pollutants (HAPs) and establish emissions standards for the categories and subcategories. These emission standards are known as the NESHAP. EPA codified these standards at 40 C.F.R. Parts 61 and 63.
2. “Major Source” is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAP, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence. 42 U.S.C. § 7412(a)(1) and 40 C.F.R. § 63.2.
3. “Stationary source” is defined as “any building, structure, facility, or installation, which emits or may emit any air pollutant.” 42 U.S.C. § 7411(a)(3) and 40 C.F.R. § 63.2.
4. “Hazardous air pollutant” is defined as “any air pollutant listed in or pursuant to” Section 112(b) of the CAA. 42 U.S.C. § 7412(a)(6) and 40 C.F.R. § 63.2.
5. Pursuant to Section 112(b)(1) of the CAA, manganese, among other things, is listed as a hazardous air pollutant. 42 U.S.C. § 7412(b)(1).
6. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), on May 20, 1999, EPA promulgated Subpart XXX, 40 C.F.R. § 63.1620-1679. *See* 64 Fed. Reg. 27450.
7. EPA has promulgated revisions to Subpart XXX on a number of occasions, including June 30, 2015 (80 FR 37390, January 18, 2017 (82 FR 5408) and November 19, 2020 (85 FR 73902).

8. Subpart XXX applies to ferromanganese and/or silicomanganese production facilities that are a major source or are co-located at a major source of hazardous air pollutant emissions. *See* 40 C.F.R. § 63.1620(a).

9. Subpart XXX also applies to facilities that operate electric arc furnace(s), casting operation(s), metal oxygen refining (MOR) process(es), crushing and screening operations, and/or outdoor fugitive dust sources. *See* 40 C.F.R. § 63.1620(b).

10. Subpart XXX at 40 C.F.R. § 63.1623 sets emission standards for new, reconstructed and existing facilities for electric arc furnaces, process fugitive emissions, local ventilation emissions, MOR process, and crushing and screening equipment.

11. Subpart XXX at 40 C.F.R. § 63.1623(a) requires the owner or operator to install, operate and maintain an effective capture system that collects the emissions from each electric arc furnace operation and conveys the collected emissions to a control device for the removal of the pollutants specified in the emissions standards in §§ 63.1623(a)(1) through (a)(5).

12. Subpart XXX at 40 C.F.R. § 63.1623(a)(1)(ii) requires that the owner or operator must not discharge exhaust gases from each electric arc furnace operation containing particulate matter in excess of 25 milligrams per dry standard cubic meter (mg/dscm) into the atmosphere from any existing electric arc furnace.

13. Subpart XXX at 40 C.F.R. § 63.1625(c)(1) requires the owner or operator to conduct an initial performance test for air pollution control devices or vent stacks subject to § 63.1623(a), (b)(1), and (c) through (e) to demonstrate compliance with the applicable emission standards.

14. Subpart XXX at 40 C.F.R. § 63.1625(c)(2)(i) requires that the owner or operator of an affected facility must conduct annual particulate matter tests for wet scrubber air pollution control devices subject to § 63.1623(a)(1) to demonstrate compliance with the applicable emission standards.

15. Subpart XXX at 40 C.F.R. § 63.1625(c)(2)(ii) requires the owner or operator to conduct particulate matter tests every 5 years for fabric filter air pollution control devices subject to § 63.1623(a)(1) to demonstrate compliance with the applicable emission standards.

16. Subpart XXX at 40 C.F.R. § 63.1625(c)(2)(v) requires the owner or operator to conduct ongoing performance tests every 5 years for air pollution control devices or vent stacks subject to § 63.1623(a)(4), (a)(5), (b)(1), and (c) through (e) to demonstrate compliance with the applicable emission standards.

17. Subpart XXX at 40 C.F.R. § 63.1625(c)(4) requires that the owner or operator of an affected facility must establish parameter operating limits according to (c)(4)(i) through (iv) of this section. Unless otherwise specified, compliance with each established operating limit shall be demonstrated for each 24-hour operating day.

18. Subpart XXX at 40 C.F.R. § 63.1625(c)(4)(i) requires, among other things, that for a wet particulate matter scrubber, the owner or operator of an affected facility must establish the minimum liquid flow rate and pressure drop as the operating limits during the three-run performance test.

19. Subpart XXX at 40 C.F.R. § 63.1625(d)(2)(i) requires, among other things, the owner or operator to establish shop building opacity operating parameters based on either monitoring data collected during the compliance demonstration or established in an engineering assessment. If you choose to establish parameters based on the initial compliance demonstration, the owner or operator must simultaneously monitor parameter values for one of the following: The capture system fan motor amperes and all capture system damper positions, the total volumetric flow rate to the air pollution control device and all capture system damper positions, or volumetric flow rate through each separately ducted hood that comprises the capture system. Subsequently the owner or operator must monitor these parameters according to § 63.1626(g) and ensure they remain within 10 percent of the value recorded during the compliant opacity readings.

20. Subpart XXX at 40 C.F.R. § 63.1626(a) requires the owner or operator to prepare, and at all times operate according to, a standard operating procedures manual that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for all baghouses (fabric filters or cartridge filters) that are used to control process vents, process fugitive, or outdoor fugitive dust emissions from any source subject to the emissions standards in § 63.1623.

21. Subpart XXX at 40 C.F.R. § 63.1652(f) requires that, at all times, the owner or operator of an affected facility must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

22. Subpart XXX at 40 C.F.R. § 63.1655(b)(1) requires the owner or operator to develop and implement a written maintenance plan for each air pollution control device associated with submerged arc furnaces, metal oxygen refining processes, and crushing and screening operations subject to the provisions of Subpart XXX.

23. Subpart XXX at 40 C.F.R. § 63.1657(a)(1) requires that the owner or operator must observe, on a daily basis, baghouses serving the submerged arc furnaces, the metal oxygen refining process, and crushing and screening operations for the presence of any visible emissions.

24. Subpart XXX at 40 C.F.R. § 63.1657(a)(2)(i) requires that, among other things, in addition to the daily visible emissions observations, required in 40 C.F.R. § 63.1657(a)(1), the owner or operator must monitor, on a daily basis, the 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.

25. Subpart XXX at 40 C.F.R. § 63.1657(a)(6) states that failure to monitor or failure to take corrective action under the requirements of paragraph (a) of this section [Baghouses] would be a violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

26. Subpart XXX at 40 C.F.R. § 63.1657(b)(1) requires the owner or operator must monitor the pressure drop across the venturi scrubber at least every 5 minutes and record the average hourly pressure drop. Measurement of an average hourly pressure drop less than the pressure drop operating parameter limit established during a successful compliance demonstration would be a violation of the applicable emission standard, unless the excursion in the pressure drop is due to a malfunction.

27. Subpart XXX at 40 C.F.R. § 63.1657(b)(3) states that failure to monitor or failure to take corrective action under the requirements of paragraph (b) of this section [Venturi scrubbers] would be a

violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

28. Subpart XXX at 40 C.F.R. § 63.1657(c)(1) requires that the owner or operator must check and record the control system fan motor amperes and capture system damper positions once per shift.

29. Subpart XXX at 40 C.F.R. § 63.1657(c)(7) states that failure to monitor or failure to take corrective action under the requirements of paragraph (c) of this section [Shop opacity] would be a violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

30. Subpart XXX at 40 C.F.R. § 63.1659(b)(1) requires that the owner or operator must submit reports that summarize the records maintained as part of the practices described in the maintenance plan for air pollution control devices required under § 63.1655(b), including an explanation of the periods when the procedures were not followed and the corrective actions taken.

31. Subpart XXX at 40 C.F.R. § 63.1659(b)(2) requires the owner or operator must submit reports that identify the periods when the average hourly pressure drop of venturi scrubbers used to control particulate emissions dropped below the levels established in § 63.1656(c)(4), and an explanation of the corrective actions taken.

Ohio State Implementation Plan

32. Under Section 110(a)(2) of the CAA, 42 U.S.C. § 7410(a)(2), each SIP must include enforceable emissions limitations and other control measures, means, or techniques, as well as a schedule for compliance, as may be necessary to meet applicable requirements, and must include a permit program to provide for the enforcement of these limitations, measures, and schedule as necessary to assure the NAAQS are achieved. Upon EPA's approval of a SIP, it become independently enforceable by the federal government, as stated under Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1).

33. EPA has approved various provisions of the Ohio Administrative Code (Ohio Admin. Code) as part of the Ohio SIP, including Ohio Admin. Code § 3745-17-07. 84 FR 24034 (May 24, 2019).

34. The Ohio SIP at Ohio Admin. Code § 3745-17-07(B)(3) sets visible particulate emission limitations for electric arc furnace shop roof monitors, argon-oxygen decarburization show roof monitors, blast furnace casthouses and sintering operations, except as otherwise specified in paragraphs (B)(11), such that visible particulate emissions from any roof monitor shall not exceed twenty percent opacity as a six-minute average.

Title V

35. Title V of the CAA, 42 U.S.C. §§ 7661 *et seq.*, and implementing regulations at 40 C.F.R. Part 70 provide for the establishment of a federally enforceable state operating permit program.

36. On August 15, 1995, EPA approved Ohio's Title V program at OAC 3745-77. 60 Fed. Reg. 42045.

37. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), provides that it is unlawful for any person to, among other things, violate any requirement of a Title V permit. *See also* OAC 3745-77-02.

Factual Background

38. Eramet owns the Facility, at which it operates the following:

- a. Electric arc furnace(s), including two submerged arc furnaces, P901 (#1 Furnace in C1F) and P908 (#12 Furnace in C2F);
- b. Casting operation(s);
- c. Metal Oxygen Refining (MOR) process;
- d. Crushing and screening operations (the Crusher), including the crushing, sizing, and packing system; and,
- e. Outdoor fugitive dust sources, including Plant wide roadways and parking areas and storage piles.

39. Eramet was and is a “person,” as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

40. Eramet was and is an “owner” and an “operator,” as those terms are defined in Section 112 of the CAA, 42 U.S.C. § 7412.

41. On March 11, 2019, the Ohio Environmental Protection Agency (Ohio EPA) issued permit number P0091078 (expiration date of April 1, 2024) to Eramet (the Title V Permit), pursuant to Title V of the CAA, 42 U.S.C. §§ 7661-7661f. This permit states that the ferromanganese and silicomanganese production facility owned and operated by Eramet and located in Marietta, Ohio (the Facility) is a major source of HAPs and subject to Subpart XXX.

42. Section C.4.d.1.d of the Title V Permit states that the acceptable range for the pressure drop across the C1F baghouse is 2 to 15 inches of water.

43. Section C.4.d.1 (a) through (c) of the Title V Permit requires Eramet to, among other things, monitor the pressure drop, in inches of water, across the process baghouse for the C1F furnace during operation of the C1F furnace. The permit provision requires, at a minimum:

- a. Eramet to record the pressure drop, in inches of water, across the process baghouse on a daily basis;
- b. Whenever the monitored value for the baghouse deviates from the specified range in the Title V Permit, Eramet must promptly investigate the cause of the deviation and maintain records of the following information for each investigation:
 - i. The date and time the deviation began and the magnitude of the deviation at that time;
 - ii. The date(s) the investigation was conducted;
 - iii. The names of the personnel who conducted the investigation; and,
 - iv. The findings and recommendation.
- c. Eramet to take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in the Title V Permit, unless Eramet determines that corrective action is not necessary.

- i. For each deviation Eramet determined corrective action is not necessary, Eramet must, at a minimum, maintain records of: the reason corrective action was not necessary; and the date and time the deviation ended.
- ii. For each deviation when corrective action was taken, Eramet must maintain records of: a description of the corrective action; the date it was completed; the date and time the deviation ended; the total period of time (in minutes) during which there was a deviation; the pressure drop reading immediately after the corrective action; and the names of the personnel who performed the work.

44. Section C.5.d.3.d of the Title V Permit states that the acceptable range for the pressure drop across the Crusher baghouse(s) is 5 to 10 inches of water.

45. Section C.5.d.3 (a) through (c) of the Title V Permit requires Eramet to, among other things, monitor the pressure drop, in inches of water, across the process baghouse for the Crusher during operation of the Crusher. The permit provision requires, at a minimum:

- a. Eramet to record the pressure drop, in inches of water, across the process baghouse on a daily basis;
- b. Whenever the monitored value for the baghouse deviate from the specified range in the Title V Permit, Eramet must promptly investigate the cause of the deviation and maintain records of the following information for each investigation:
 - i. The date and time the deviation began and the magnitude of the deviation at that time;
 - ii. The date(s) the investigation was conducted;
 - iii. The names of the personnel who conducted the investigation; and,
 - iv. The findings and recommendation.
- c. Eramet to take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in the Title V Permit, unless Eramet determines that corrective action is not necessary.
 - i. For each deviation Eramet determined corrective action is not necessary, Eramet must, at a minimum, maintain records of: the reason corrective action was not necessary; and the date and time the deviation ended.
 - ii. For each deviation when corrective action was taken, Eramet must maintain records of: a description of the corrective action; the date it was completed; the date and time the deviation ended; the total period of time (in minutes) during which there was a deviation; the pressure drop reading immediately after the corrective action; and the names of the personnel who performed the work.

46. Sections C.4.e and C.5.e of the Title V Permit each requires Eramet to submit quarterly deviation reports for the C1F baghouse and Crusher baghouse pressure drop deviations. The quarterly deviation reports are required to include, at a minimum:

- a. Each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
- b. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

- c. Each incident of deviation described in “a” (above) where a prompt investigation was not conducted;
- d. Each incident of deviation described in “a” (above) where prompt corrective action that would bring the pressure drop into compliance with the acceptable range was determined to be necessary and was not taken; and
- e. Each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

47. On March 28, 2022, EPA issued a request for information to Eramet pursuant to EPA’s authority under Section 114 of the CAA, 42 U.S.C. § 7414.

48. On May 4, 2022, Eramet submitted documents and information in response to the information request EPA sent on March 28, 2022. Eramet submitted, among other things:

- a. Potential to emit (PTE) calculations for, among other things, the #12 Furnace, the #1 Furnace, Crushing and Sizing Operations and MOR process for 2022.
- b. Performance stack test results and operational data during the tests from 2019 through 2022 and daily average flow rate and pressure drop for the #12 Furnace parallel wet scrubbers from January 1, 2019, through March 30, 2022;
- c. Daily pressure drop readings across the baghouses for the MOR process, C1F furnace, and Crusher operations from January 1, 2019 through March 29, 2022;
- d. Quarterly, semi-annual, and annual deviation reports for 2019, 2020, and 2021, which include, among other things, investigations and corrective actions taken in response to operational parameter limit deviations;
- e. Maintenance plans and standard operating procedures (SOP) manuals for each air pollution control device associated with submerged arc furnaces, metal oxygen refining process, and crushing and screening operations including:
 - i. #1 Furnace:
 - 1. Startup, shutdown and malfunction plans (SSMP) for each #1 Furnace baghouse: Mikropul; Fuller; and Schust;
 - 2. NESHAP system training; and
 - 3. SOPs for Depollution.
 - ii. The Crusher:
 - 1. C2P Crusher SOP; and
 - 2. C2P Donaldson SSMP;
 - iii. The MOR:
 - 1. Baghouse control limits check sheet;
 - 2. MOR SOP;
 - 3. MOR Wheelabrator SSMP and Maintenance Plan; and
 - 4. NESHAP training.

49. On November 9, 2022, EPA inspected the Facility (the Inspection). During the Inspection, EPA performed visible emission observations of opacity from the #12 Furnace Shop roof monitor. During the Inspection, EPA requested records required by Title V Permit Condition C.2.d.25

from August 1, 2022, through November 9, 2022, for: Daily Pressure Drop Readings and any investigation reports if the pressure drop deviated from the pressure drop range for the Baghouses that control the Crushers (P917) required by Title V Permit Condition C.5.d.3.

50. Eramet emits more than 10 tons per year of manganese. Therefore, at all times relevant to this NOV/FOV, Eramet was and is a major source of HAPs, as defined in 42 U.S.C. § 7412(a)(1) and 40 C.F.R. § 63.2.

51. The #12 Furnace uses a wet scrubber to control particulate matter. Among other things, to demonstrate compliance with applicable emission standards in 40 C.F.R. § 63.1623(a)(1)(ii), 40 C.F.R. § 63.1657(b)(1) requires the wet scrubber to be operated in compliance with the hourly pressure drop operating parameter limits established in the performance test(s). Eramet submitted to EPA performance stack tests demonstrating compliance with applicable emission limits conducted on November 8, 2018, April 29, 2020, April 21, 2021, and February 9, 2022, which established operating parameter limits of the wet scrubber for the applicable timeframes.

52. The #1 Furnace in C1F uses three baghouses (“the Mikropul,” “the Fuller,” and “the Schust”) to control particulate matter. The Mikropul baghouse is the primary emission control for #1 Furnace. The Fuller and Schust baghouses control process fugitive particulate emissions from tapping, casting, and slag raking in C1F, which cause and contribute to building shop opacity at the roof monitor. The SSMPs submitted for the Mikropul, the Fuller, and the Schust baghouses state, among other things:

- a. The Mikropul baghouse is a reverse-air dust collector and immediate action is required if the differential pressure is out of the acceptable range;
- b. The Fuller baghouse is a pulse-jet dust collector and immediate action is required if the differential pressure is out of the acceptable range. The acceptable average operating motor amperage range for the dust collector is 230-260 amperes and immediate action is required if (AMPS) are out of acceptable range; and
- c. The Schust baghouse is a pulse-jet dust collector and immediate action is required if the differential pressure is out of the acceptable range. The acceptable average operating motor amperage range for the dust collector is 240-270 amperes and immediate action is required if (AMPS) are out of acceptable range.

53. The Crusher uses three dust collectors to control particulate matter (“C2P1”, “C2P2”, and “C2P”).

54. The MOR process uses one baghouse to control particulate matter.

55. On February 10, 2023, EPA obtained a copy of Eramet’s Title V Annual Compliance Certification report through Ohio EPA’s eDocument database of public records. Eramet’s Title V Annual Compliance Certification report includes all quarterly deviation reports from January 1, 2022, through December 31, 2022, and, among other things, investigations and corrective actions taken in response to operational parameter limit deviations.

56. According to the information provided by Eramet, operational limits for minimum flow rate, in gallons per minute (gpm), and differential pressure drop, in inches of water (in. H₂O), across the parallel wet scrubbers (East and West) were established during performance stack tests on the #12 Furnace, which are listed below in Table 1.

Table 1: Minimum Operational Limits for #12 Furnace Wet Scrubber Established During Performance Tests

Performance Test Date	Average Flow Rate (gpm)	Differential Pressure (in. H2O)	
		East	West
4/29/2020	1924	61.1	61
4/21/2021	1836	61.3	61.4
2/9/2022	1819	61	61

57. According to the information provided by Eramet, the daily average flow rate to the #12 Furnace wet scrubber was below the operational limit established during the respective performance stack tests for a total of 612 operating days between April 29, 2020, and March 30, 2022. A summary of the days that the daily average flow rate was below the minimum flow rate is provided below in Table 2. A list of the individual dates when the daily average flow rate was below the operational limit is provided in Appendix A.

Table 2: Number of Days When Daily Average Flow Rate is Below Minimum Value

Start	End	Minimum Flow Rate (gpm)	No. Days Below Min.	Percent of Time Below Min.
4/29/2020	4/20/2021	1924	352	99%
4/21/2021	2/8/2022	1836	239	82%
2/9/2022	3/30/2022	1819	21	43%

58. According to the information provided by Eramet, the daily average differential pressure to the #12 Furnace wet scrubber was below the operational limit established during the respective performance stack tests for a total of 599 operating days (East) and 627 operating days (West) between April 29, 2020, and March 30, 2022. In order for the daily average differential pressure to be below the operational limit, one or more hourly values in that day must be below the operational limit. A summary of the days that the daily average differential pressure was below the minimum differential pressure is provided below in Table 3. A list of the individual dates when the daily average differential pressure was below the operational limit is provided in Appendix B.

Table 3: Number of Days When Daily Average Pressure Drop is Below Minimum Value

Start	End	Minimum Differential Pressure (in. H ₂ O)		No. Days Below Min.		Percent of Time Below Min.	
		East	West	East	West	East	West
4/29/2020	4/20/2021	61.1	61	318	314	89%	88%
4/21/2021	2/8/2022	61.3	61.4	235	266	80%	91%
2/9/2022	3/30/2022	61	61	46	47	94%	96%

59. According to information provided by Eramet, the daily average differential pressure to the Crusher baghouses (C2P1, C2P2, and C2P3) was below the operational limit established in the Title V Permit for all operating days from January 1, 2019, through March 29, 2022, and from

September 1, 2022, through November 15, 2022. A summary of the days that the daily average differential pressure was below the minimum differential pressure is provided below in Table 4 below. A list of the individual dates when the daily average differential pressure was below the operational limit is provided in Appendix C.

Table 4: Number of Days When Daily Average Pressure Drop is Outside of Compliant Range for Crusher Baghouse

Air Pollution Control Unit:	Start:	End:	Compliant Range: (in. H₂O)	No. Days Outside Compliant Range:	Percent of Time Outside Compliant Range:
C2P1	1/1/2019	3/29/2022	5 to 10	1,183	100%
C2P1	9/1/2022	11/15/2022	5 to 10	73	100%
C2P2	1/1/2019	3/29/2022	5 to 10	1,183	100%
C2P2	9/1/2022	11/15/2022	5 to 10	59	100%
C2P3	1/1/2019	3/29/2022	5 to 10	1,180	100%
C2P3	9/1/2022	11/15/2022	5 to 10	57	100%

60. According to information provided by Eramet, the daily average differential pressures of the Mikropul, Fuller, and Schust Dust Collectors were below the operational limits established in the Title V Permit for a total of 1,255 daily averages on operating days for all three dust collectors from January 1, 2019, through March 29, 2022. A summary of the days that the daily average differential pressures were below the minimum differential pressure is provided below in Table 5 below. A list of the individual dates when the daily average differential pressures were below the operational limit is provided in Appendix D.

Table 5: Number of Days When Daily Average Pressure Drop is Outside of Compliant Range for C1F Baghouse

Air Pollution Control Unit:	Start:	End:	Compliant Range: (in. H₂O)	No. Days Outside Compliant Range:	Percent of Time Outside Compliant Range:
Mikropul Dust Collector	1/1/2019	3/29/2022	2 to 15	11	1%
Fuller Dust Collector	1/1/2019	3/29/2022	2 to 15	294	25%
Schust Dust Collector	1/1/2019	3/29/2022	2 to 15	950	81%

61. According to information provided by Eramet, the daily average motor amperage to the #1 Furnace Fuller Dust Collector and Schust Dust Collector was below the operational limit established in the Fuller and Schust SOP for 1,176 operating days for both the Fuller and Schust Dust Collectors from January 1, 2019, through March 29, 2022. A summary of the days that the daily average minimum

motor amperage is provided below in Table 6 below. A list of the individual dates when the daily average minimum motor amperage was below the operational limit is provided in Appendix E.

Table 6: Number of Days When Daily Average Motor Amperage is Outside of Compliant Range for C1F Baghouse

Air Pollution Control Unit:	Start:	End:	Compliant Range: (Amperes)	No. Days Outside Compliant Range:	Percent of Time Outside Compliant Range:
Fuller Dust Collector	1/1/2019	3/29/2022	230 to 260	1,178	100%
Schust Dust Collector	1/1/2019	3/29/2022	240 to 270	1,177	100%

62. According to information provided by Eramet, the daily average differential pressure to the MOR Baghouse Collector was less than the operational limit established in the MOR SOP for a total of 88 operating days from April 1, 2019, through March 29, 2022. A summary of the days that the daily average differential pressure was below the minimum differential pressure is provided below in Table 7 below. A list of the individual dates when the daily average differential pressure was below the operational limit is provided in Appendix F.

Table 7: Number of Days When Daily Average Pressure Drop is Outside of SOP Compliant Range for MOR Baghouse

Air Pollution Control Unit:	Start:	End:	Compliant Range: (in. H₂O)	No. Days Outside Compliant Range:	Percent of Time Outside Compliant Range:
MOR Baghouse	4/1/2019	3/29/2022	5 to 12	88	8%

63. During the Inspection, EPA observed visible emissions from the #12 Furnace roof monitor. Visible emissions on November 9, 2022, were analyzed in accordance with EPA Alternative Method 082. The opacity measured was 58% and 55% (6-minute average).

Violations

64. The daily average flow rate was less than the operational limit for the #12 Furnace wet scrubber as listed in Table 2 on a total of 612 operating days identified in Appendix A between April 29, 2020, and March 30, 2022, with no investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1625(c)(4), and 63.1652(f).

65. The daily average differential pressure was less than the operational limits for the #12 Furnace wet scrubbers as listed in Table 3 on a combined total of 1,226 operating days identified in Appendix B between April 29, 2020, and March 30, 2022, with no investigation as to the cause or

corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1625(c)(4), 63.1657(b)(3), 63.1652(f), 63.1657(b)(1) and 63.1623(a)(1)(ii).

66. The daily average differential pressures of the Crusher baghouses (C2P1, C2P2, and C2P3) were less than the operational limits established in the Title V Permit for a combined total of 89 daily averages across the three dust collectors as listed in Table 4 on operating days identified in Appendix C from January 1, 2019 through March 31, 2019, with no documentation of investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(a)(6) and 63.1652(f).

67. The daily average differential pressures of the Crusher baghouses (C2P1, C2P2, and C2P3) were less than the operational limits established in the Title V Permit for a combined total of 3,646 daily averages across the three dust collectors as listed in Table 4 on operating days identified in Appendix C from April 1, 2019, through March 29, 2022, with no documentation of investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(a)(6) and 63.1652(f) and Section C.5.d.3.d and Section C.5.d.3(b) through (c) of the Title V Permit.

68. The daily average differential pressures of the Mikropul, Fuller, and Schust Dust Collectors were less than the operational limits established in the Title V Permit for a total of 143 daily averages as listed in Table 5 on operating days identified in Appendix D for all three dust collectors from January 1, 2019, through March 31, 2019, with no investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(a)(6) and 63.1652(f).

69. The daily average differential pressures of the Mikropul, Fuller, and Schust Dust Collectors were less than the operational limits established in the Title V Permit for a total of 1,112 daily averages as listed in Table 5 on operating days identified in Appendix D for all three dust collectors from April 1, 2019, through March 29, 2022, with no investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(a)(6) and 63.1652(f), and Section C.4.d.1.d and Section C.4.d.1(b) through (c) of the Title V Permit.

70. The daily average fan motor amperes of the Fuller and Schust Dust Collectors were less than the operational limits provided in Fuller and Schust Dust Collectors SSMP for total of 1,176 days for both dust collectors as listed in Table 6 on operating days identified in Appendix E from January 1, 2019, through March 29, 2022, with no investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(c)(7) and 63.1652(f).

71. The daily average differential pressure to the MOR baghouse was less than the operational limits provided in MOR SOP for 103 days as listed in Table 7 on operating days identified in Appendix F from April 1, 2019, through March 29, 2022, with no investigation as to the cause or corrective actions taken by Eramet in violation of 40 C.F.R. §§ 63.1657(a)(6) and 63.1652(f).

72. Eramet failed to submit reports documenting investigations and explanations of corrective actions taken in response to daily averages of pressure drop, flow rates, and fan amperes that were less than operational limits in violation of 40 C.F.R. § 63.1659(b)(1) and (2), and Sections C.4.e and C.5.e of the Title V Permit.

73. On November 9, 2022, visible emission observations from the #12 Furnace roof monitor exceeded twenty per cent opacity as a six-minute average (58% and 55% six-minute average) in violation of the Ohio SIP at Ohio Admin. Code § 3745-17-07(B)(3).

Environmental Impact of Violations

74. These violations have caused excess emissions of particulate matter. Particulate matter, especially fine particulates, contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. Particulate matter exposure contributes to:

- irritation of the airways, coughing, and difficulty breathing;
- decreased lung function;
- aggravated asthma;
- chronic bronchitis;
- irregular heartbeat;
- nonfatal heart attacks; and
- premature death in people with heart or lung disease.

The particulate matter emitted from certain ferromanganese and silicomanganese operations contains manganese. Manganese is a neurotoxin at certain concentrations that can cause neuromotor and neuropsychological deficits. Inhaled manganese may be transported to the brain before it is metabolized by the liver. Exposure to elevated concentrations of manganese in the air may lead to a permanent neurological disorder known as manganism, the symptoms of which include tremors, difficulty walking, facial muscle spasms, negative cognitive effects, and mood changes. It may also lead to lung inflammation and impaired lung function. In children, exposure to elevated levels of manganese may result in effects on brain development, including changes in behavior and decreases in learning and memory capacities.

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division