

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

In the Matter of:	)	
	)	
Cleveland-Cliffs Cleveland Works LLC	)	FINDING OF VIOLATION
Cleveland, Ohio	)	
	)	EPA-5-25-OH-13
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) finds that Cleveland-Cliffs Cleveland Works LLC (Cleveland-Cliffs) is violating its Title V Permit. Specifically, Cleveland-Cliffs is violating its Title V Permit, as follows:

Statutory and Regulatory Authority

Title V Permit

1. Title V of the Clean Air Act, 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.
2. EPA approved Ohio's Title V program on August 15, 1995. Ohio's Title V program became effective on October 1, 1995. 60 *Fed. Reg.* 42045.
3. Section 502(a) of the Clean Air Act, 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.
4. The Ohio Environmental Protection Agency (Ohio EPA) issued Cleveland-Cliffs a Title V Permit (No. P0129660) effective March 9, 2021 (Title V Permit), which established conditions for operations for emissions units P903, Blast furnace C5 (C5), and P904, Blast furnace C6 (C6).
5. Condition 31 of the Title V Permit applies to C5. Condition 31.b.1.a. of the Title V Permit states: "Visible emissions of fugitive dust from the casthouse shall not exceed 15% opacity as a six-minute rolling average, except for the six-minute periods which include the tap hole drilling or plugging operation or oxygen lancing operation which shall not exceed 20% opacity as a six-minute rolling average basis".
6. Condition 32 of the Title V Permit applies to C6. Condition 32.b.1.b. of the Title V Permit states, "Visible emissions of fugitive dust shall not exceed 20% opacity, as a six-minute average from the casthouse, except as provided by OAC rule 3745-17-07(B)(11)(f) regarding malfunctions."

Findings

7. Cleveland-Cliffs owns and operates an integrated iron and steel manufacturing facility (Facility) at 3060 Eggers Avenue, Cleveland, Ohio, which includes C5 and C6.

8. On April 24, 2024, EPA conducted offsite observations in accordance with EPA Alternative Method 082 on the C6 casthouse roof monitor at the Facility. EPA observed visible emissions in the afternoon from the C6 casthouse roof monitor. Visible emissions during the observation were analyzed in accordance with EPA Alternative Method 082. The opacity measured as a 6-minute average, on three separate instances, was 25% from 1:28 to 1:34 p.m., 42% from 1:34 to 1:40 p.m., and 35% from 1:40 to 1:46 p.m.

9. On July 9, 2024, EPA conducted offsite observations in accordance with EPA Alternative Method 082 on the C6 casthouse roof monitor at the Facility. EPA observed visible emissions in the afternoon from the C6 casthouse roof monitor. Visible emissions during the observation were analyzed in accordance with EPA Alternative Method 082. The opacity measured as a 6-minute average, on four separate instances, was 43% from 9:08 to 9:14 a.m., 47% from 9:42 to 9:48 a.m., 26% from 9:49 to 9:55 a.m., and 26% from 9:56 to 10:02 a.m.

10. On September 10, 2024, EPA conducted onsite observations in accordance with EPA Alternative Method 082 on the C6 casthouse roof monitor at the Facility. EPA observed visible emissions in the afternoon from the C6 casthouse roof monitor. Visible emissions during the observation were analyzed in accordance with EPA Alternative Method 082. The opacity measured, as a 6-minute average, on four separate instances was 25% from 3:43 to 3:48 p.m., 22% from 3:54 to 4:00 p.m., 24% from 4:42 to 4:47 p.m., and 23% from 4:48 to 4:54 p.m.

11. On December 17, 2024, EPA conducted offsite observations in accordance with EPA Method 9 on the C5 casthouse roof monitor at the Facility. EPA observed visible emissions in the morning from the C5 casthouse roof monitor. The opacity measured as a 6-minute average, on seven separate instances, was 33% from 9:20 to 9:26 a.m., 34% from 9:28 to 9:34 a.m., 48% from 9:38 to 9:44 a.m., 32% from 9:51 to 9:57 a.m., 35% from 9:59 to 10:05 a.m., 35% from 10:06 to 10:12 a.m., and 35% from 10:13 to 10:19 a.m.

12. Since July 28, 2021, Cleveland Cliffs has submitted Semi-Annual Compliance Reports to the EPA via the Compliance and Emissions Data Reporting Interface. Cleveland-Cliffs has reported ten emissive events that were apparent exceedances of 20% opacity on a six-minute average at the C5 casthouse and C6 casthouse in these Semi-Annual Compliance Reports, as detailed below:

Semi-Annual Compliance Report	Blast Furnace Casthouse	Start Date and Time of Deviation	Stop Date and Time of Deviation
First Half 2021	C6	3/27/21 6:34 a.m.	3/27/21 8:32 a.m.
	C5	5/19/21 5:20 a.m.	5/19/21 6:15 a.m.

Second Half 2021	C6	9/7/21 12:44 p.m.	9/7/21 12:50 p.m.
	C6	11/24/21 3:09 p.m.	11/24/21 3:05 p.m. ¹
Second Half 2022	C6	7/13/22 7:53 a.m.	7/13/22 7:59 a.m.
Second Half 2023	C6	8/11/23 7:32 a.m.	8/11/23 8:34 a.m.
First Half 2024	C6	1/24/24 1:55 p.m.	1/24/24 2:01 p.m.
	C6	5/24/24 7:57 a.m.	5/24/24 8:03 a.m.
	C5	5/15/24 9:57 a.m.	5/15/24 10:03 a.m.
	C5	6/18/24 12:56 p.m.	6/18/24 1:01 p.m.

Violations

13. On May 19, 2021, May 15, 2024, June 18, 2024, and December 17, 2024, Cleveland-Cliffs caused the discharge of emissions at C5 resulting in opacity above 20% as a 6-minute average in violation of the opacity limit set forth in Condition 31.b.1.a of the Title V Permit.

14. On March 27, 2021, September 7, 2021, November 24, 2021, July 13, 2022, August 11, 2023, January 24, 2024, April 24, 2024, May 24, 2024, July 9, 2024, and September 10, 2024, Cleveland-Cliffs cause the discharge of emission at C6 resulting in opacity above 20% as a 6-minute average in violation of the opacity limit set forth in Condition 32.b.1.b of the Title V Permit.

15. By violating Conditions 31 and 32 of the Title V Permit, Cleveland-Cliffs violated Section 502(a) of the Clean Air Act, 42 U.S.C. § 7661a(a).

Environmental Impact of Violations

16. 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.

¹ All timing associated with the deviations are presented as reported by Cleveland-Cliffs in the Semi-Annual Compliance Reports.

The particulate matter emitted from certain integrated iron and steel operations contains manganese. Manganese is a neurotoxin at certain concentrations that can cause neuromotor and neuropsychological deficits. On October 8, 2024, EPA's geospatial measurement air pollution device (GMAP) recorded a concentration of 0.4 ug/m³ in the ambient air near the Facility at 10:45 a.m. The Agency for Toxic Substances and Diseases Registry chronic minimal risk level for inhalation exposure to manganese is 0.3 ug/m³ for chronic (>1 year) exposure.

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