



REGION 5

CHICAGO, IL 60604

ELECTRONIC MAIL
DELIVERY RECEIPT REQUESTED

Stephani Campbell
Environmental Control Engineer
United States Steel Corporation
scampbell@uss.com

RE: Request for Performance Test Waiver and Site-Specific Monitoring Plan
United States Steel Corporation, Keewatin, Minnesota

Dear Stephani Campbell:

The U.S. Environmental Protection Agency has received and reviewed a letter from United States Steel Corporation (USS Keetac), dated January 9, 2024, requesting a performance test waiver and a site-specific monitoring plan for Concentrator Lines 1-6 at its facility located in Keewatin, Minnesota. Concentrator Lines 1-6 are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Taconite Iron Ore Processing, 40 C.F.R. Part 63, Subpart RRRRR (Taconite MACT), 40 C.F.R. §§ 63.9580 through 63.9652. In summary, USS Keetac plans to replace six dynamic wet scrubbers with dry cartridge collectors followed by HEPA filters to control emissions from Concentrator Lines 1-6. Because the emissions are collected inside the building housing the affected units and do not exhaust through ductwork or a stack, USS Keetac is unable to test the industrial hygiene system in accordance with the methods required by the Taconite MACT. Therefore, USS Keetac is requesting a performance test waiver and has submitted a site-specific monitoring plan to demonstrate compliance with the emission standard under the Taconite MACT. For the reasons set forth below, the U.S. Environmental Protection Agency approves the request with conditions.

Regulatory Background

Pursuant to 40 C.F.R. §§ 63.7(e)(1) and 63.9620(a), USS Keetac must demonstrate initial compliance with the emission limits in Table 1 of the Taconite MACT by conducting an initial performance test for particulate matter at each ore crushing and handling affected source using the test methods pursuant to 40 C.F.R. § 63.9621(b). Additionally, under 40 C.F.R. § 63.9630(a), USS Keetac must perform subsequent performance tests to demonstrate continued compliance. Subsequent performance testing must be conducted according to a schedule developed by or in conjunction with the source's permitting authority.

The General Provisions of 40 C.F.R. Part 63, Subpart A provide requirements for performance test waivers. Under 40 C.F.R. § 63.7(h)(2), in part, "[i]ndividual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis."

Pursuant to 40 C.F.R. § 63.9631(f), in part:

If [an owner or operator] uses any air pollution control device other than a baghouse, wet scrubber, dry electrostatic precipitator, or wet electrostatic precipitator, they must submit a site-specific monitoring plan that includes the following information:

- i. A description of the device;
- ii. Test results collected in accordance with 40 C.F.R. § 63.9621 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by the Taconite MACT;
- iii. A copy of the operation and maintenance plan required in 40 C.F.R. § 63.9600(b); and
- iv. Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).

USS Keetac's Request

In its January 2024 letter, USS Keetac describes its operations that include Concentrator Lines 1-6 (EU005-EU010) and how emissions from these affected units will be collected by a dry cartridge collector with HEPA filters that exhaust inside the building housing the units. USS Keetac will install the HEPA filters to meet the Mine Safety and Health Administration (MSHA) industrial hygiene requirements and the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) for respiratory dust. Since the control devices described exhaust internally and do not have exhaust points that can be tested using EPA Reference Test Methods pursuant to the Taconite MACT, USS Keetac requested a performance test waiver.

As USS Keetac notes in its request, EPA Region 5 previously approved a similar performance waiver request for Wabash Alloys, LLC in a letter dated December 4, 2008. Wabash Alloys, LLC operated a ring crusher that was subject to the NESHAP at 40 C.F.R. Part 63, Subpart RRR and exhausted indoors from an exhaust vent that could not be tested per EPA Reference Test Methods. EPA approved Wabash Alloy, LLC's request because the required stack testing was not technically feasible. Furthermore, EPA believed the source to be in continuous compliance with the applicable NESHAP.

USS Keetac also notes in its request that EPA approved a performance testing waiver and site specific monitoring plan for its Primary Gyratory Crushers No. 1 (EU001) and No. 2 (EU002) on October 16, 2023.

Since USS Keetac does not use a baghouse, wet scrubber, dry electrostatic precipitator, or wet electrostatic precipitator at its two primary crushers, per 40 C.F.R. § 63.9631(f), USS Keetac is required to submit a site-specific monitoring plan with specific information for the corresponding control devices. USS Keetac submitted a site-specific monitoring plan according to the Taconite MACT along with its request for a performance test waiver. To demonstrate ongoing compliance with the Taconite MACT standard, USS Keetac proposed to ensure compliance with the OSHA PEL and MSHA standards, which are more stringent than the applicable standard under the Taconite MACT. Furthermore, USS Keetac proposed to conduct annual industrial hygiene testing, including indoor air measurements at the discharge/exhaust point of the dust collection system and HEPA filter using a Dusttrak II or equivalent aerosol monitor, and also proposed to conduct monthly visual inspections at the control device.

In its letter, USS Keetac included industrial hygiene measurements collected for 10 non-consecutive days over an 8-month period in 2022. The respiratory dust measurements are below the OSHA and MSHA standards and demonstrate USS Keetac's compliance with the Taconite MACT standard at Primary Gyratory Crushers No. 1 (EU001) and No. 2 (EU002) and their HEPA filters. Because the industrial hygiene systems at Concentrator Lines 1-6 are substantially similar to those at the Crushers, USS Keetac asserts that the respiratory dust measurements from the Crushers are equally representative of compliance with the Taconite MACT at Concentrator Lines 1-6.

In emails on January 18, 2024, USS Keetac provided an updated Operation and Maintenance (O&M) Plan, and a table clarifying equipment identifiers. The updated O&M Plan indicates that the HEPA filters will be replaced if and when the differential gas pressure drop across the filter exceeds 4 in. w.c., and at least once per year otherwise. USS Keetac's request and the O&M Plan also indicate that initial performance testing will occur at each of the six Concentrator Lines within six months of startup, followed by a testing cycle of two Concentrator Lines per year over a 3-year period, such that all six Concentrator Lines (if operating) will be tested at least once within a 3-year period. The industrial hygiene testing will utilize a Dusttrak II, or equivalent aerosol monitor, and use a 3-hour time weighted average instead of an 8-hour average.

Analysis

EPA understands that the test methods specified under 40 C.F.R. § 63.9621(b) cannot be performed at the industrial hygiene system since there is no stack; therefore, the required performance test is not technically feasible. Since USS Keetac collected and submitted the 2022 industrial hygiene measurements at Primary Gyratory Crushers No. 1 (EU001) and No. 2 (EU002) and their HEPA filters that are below the OSHA PEL for respiratory dust, EPA believes USS Keetac to be able to meet the applicable standard under the Taconite MACT for Concentrator Lines 1-6. Therefore, pursuant to 40 C.F.R. § 63.7(h)(2), EPA approves USS Keetac's request for a performance test waiver for Concentrator Lines 1-6 (EU005-EU010).

Because USS Keetac cannot conduct performance testing to demonstrate compliance with the emissions standard under the Taconite MACT, USS Keetac instead proposes to demonstrate compliance with OSHA's PEL for respiratory dust of 5.0 mg/m³ over a 3-hour time weighted average. USS Keetac asserts that the PEL is more stringent than the 0.008 gr/dscf emission limit set by the Taconite MACT. Consistent with EPA's approval of USS Keetac's October 16, 2023 request for the Crushers, EPA agrees that the PEL is more stringent than the Taconite MACT emission limit if assessed on a 3-hour basis. Therefore, EPA approves USS Keetac's proposal to conduct industrial hygiene testing in accordance with the provided O&M Plan.

For the reasons specified above, EPA approves USS Keetac's performance test waiver and site-specific monitoring plan for Concentrator Lines 1-6 (EU005-EU010). We have coordinated this approval with EPA's Office of Air Quality Planning and Standards (OAQPS). Please note that this approval is limited to USS Keetac's request for Concentrator Lines 1-6. Any future projects consisting of this same configuration (dry cartridge collectors that vent inside the building through a HEPA filter and not discharging out of a stack) must still be submitted to EPA for review and approval. If you have any further questions, please contact Jacob Herbers of my staff at Herbers.Jacob@epa.gov.

Sincerely,

**MICHAEL
HARRIS**

Digitally signed by
MICHAEL HARRIS
Date: 2024.02.26
14:29:32 -06'00'

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division

cc: Rachel Studanski, Manager
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