STATEMENT OF BASIS

MUELLER CO.
ALBERTVILLE, MARSHALL COUNTY, AL
711–0013

Mueller Co. has applied for a renewal of the title V major source operation permit (MSOP) No. 301–0014 (the Permit) for their facility located in Albertville, Marshall County, which is currently listed as attainment/unclassifiable with all National Ambient Air Quality Standards (NAAQS). This proposed MSOP renewal is issued under the provisions of ADEM Admin. Code r. 335-3-16. The above-named applicant has requested authorization to perform the work and operate the facility shown in the application and drawings, plans, and other documents on file with the Air Division of the Alabama Department of Environmental Management ("ADEM", or the "Department"), in accordance with the terms and conditions of the Permit.

The initial title V MSOP was issued on January 04, 2000, and is undergoing its fifth renewal. The current MSOP was issued on August 26, 2020, with an expiration date of August 25, 2025. This renewal application was originally received by the Department on March 31, 2025, with supplemental information received electronically on June 26 and 27, 2025.

There are no current or ongoing enforcement actions against Mueller Co. necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found using the EPA's Enforcement and Compliance History Online database (ECHO) (*https://echo.epa.gov/*) and searching by "Facility Name/ID" using Facility ID No. "AL0000000109500013".

NOTABLE CHANGES

There are several important structural changes that will be implemented with this renewal that aim to better organize, simplify, and consolidate regulatory requirements; improve overall readability and comprehension; and establish a uniformed method of citation for MSOP issued by the Department. This has resulted in multiple sections and units/processes from the current issuance being separated and regrouped with other units/processes that have similar regulatory requirements. This restructuring does not affect regulatory applicability requirements in any way.

- The sections in the permit have been reorganized to improve the readability of the permit and to combine sources into single sections when requirements largely overlap.
- EP-001 (3 Ajax EIF [electric induction furnaces]), EP-017 (2 Coreless EIF), and EP-018 (Ductile Iron Treatment) have been grouped together under "Section 2 – Metal Melting & Treatment Operations".
- Core Production (EP-092) has been removed from the permit and added to the List of Trivial & Insignificant Activities as the core making booths do not use any add-on control devices (each booth contains air particulate filters that are inherent to the operations of each booth) and have the potential to emit less than 5 TPY.
- A section has been added to the permit requiring Mueller to comply with the Fugitive Dust Plan submitted on June 26, 2025, as part of the renewal application.

Additionally, there have also been several corrections made to account for the actual facility layout and process flow.

- Previous renewals have indicated that emissions from one coreless EIF are ducted to EP-017 and the other to EP-001, but according to the 2 process flow diagrams and accompanying forms with this renewal application, emissions from both coreless EIF are currently ducted to a single baghouse (EP-017).
- EP-018 has not been operated as a single emission point for approximately 10 years, but due to historical naming conventions, the ductile iron treatment (i.e., inoculation) process has been referred to as "EP-018" despite not being a physical emission point or stack. Emissions from the inoculation process are captured and controlled by a baghouse shared with the 2 Coreless EIF (EP-017).

PROCESS DESCRIPTION

Mueller owns and operates this iron foundry specializing in the casting of ductile iron parts and products. This specific foundry produces fire hydrants of various sizes, shapes, and designs using a unique method called "lost foam".

Melting Process

Mueller receives scrap metal from a variety of providers and melts this metallic scrap in one of 5 electric induction furnaces (EIF), 3 Ajax EIF and 2 Coreless EIF. Emissions from each furnace are captured by a circular lid atop each furnace and controlled by one of two Dustex baghouses (EP-001 or EP-017). Near the edge of this lid is a ridge vent-type intake that pulls fresh air into the furnace from the pouring spout and captures nearly all emissions from the melting process. When charging each furnace, the lid opens to approximately 45°, which continues to capture most of the melting emissions.

Once the desired chemistry is met, most of the molten metal is poured from the furnace into a ladle containing a predetermined amount of magnesium, where the pouring of molten metal mixes with the magnesium to create ductile iron. Emissions from this inoculation process are largely captured by an overhead moving side-vent that moves in front of each furnace shortly before the inoculation process begins, connects to an awaiting overhead duct, then captures the emissions from the reaction between the magnesium and heat from the molten metal, which are treated by the EP-017 Dustex baghouse.

Lost Foam Molding & Casting Operations

After the iron is sufficiently alloyed into ductile iron, the transfer ladles are transferred via overhead crane to a pouring/casting station. Mueller utilizes a unique process to create each fire hydrant with all writings, serial numbers, and other required features in a single casting. Typical sand molds/cores are unable to recreate this level of detail without requiring a significant amount of manual finishing operations to improve the readability of these features.

Mueller uses a type of expandable polystyrene pellets, heated and expanded by a small boiler within a metal form. These foam parts are then coated in a clay slurry, dried, and repeated several times until a thin, yet durable, shell is formed. Once the slurry is dried for the last time, the coated-foam parts are placed into a large metal form where foundry sand is added to fill in the spaces between the foam molds. The mold is vibrated and shaken to consolidate the sand around the foam. Compared to the traditional mold-making and casting process, these molds are made in reverse order: starting with the final casting shape then adding sand to fill in the voids, instead of forcing the sand into the shape of the final casting then filling in the empty void to create the final casting shape.

Once prepared for casting, molten metal is poured into the top of the consolidated sand mold, evaporating/disintegrating the foam parts upon contact (the "lost" in "lost foam") but still held in place by the hardened clay coating long enough for the ductile iron to solidify and retain all the fine details created within the foam parts. Emissions from this pouring/casting process are captured then routed to baghouse EP-090.

Upper- & Lower-Barrel Sand Handling Recycling Systems

After the castings have cooled and fully solidified, the form is removed and, unlike chemically bonded sand, freely falls away from the castings without any vibratory or rotary shakeout required. This loose sand is transported via conveyors, separators, and elevators to the sand cooler, then to a storage silo. Both the upper- and lower-barrel sand recycling systems operate similarly to one another, with the only difference being which types of hydrant parts are processed (upper-barrel parts, lower-barrel parts). Emissions from the upper- and lower-barrel sand recycling system are each controlled by a separate baghouse (EP-009 and EP-015, respectively).

Pneumatic Sand System

When forming sand molds and cores, a certain ratio of fresh-to-recycled sand is needed in order for the catalyst-activated resin to bond the grains of sand together properly during the sand mulling and curing process, but since the primary casting method employed at this facility is lost foam casting, Mueller receives freshly mixed sand (only resin; catalyst is added during mold-/core-making process), which is stored in the pre-mix sand silo until transferred to the Disa Specialty Foundry for processing into sand molds and cores. Emissions from the sand silo are controlled by inherent bin vent filters located at the top of the silo (EP-003).

Disamatic Specialty Foundry

Additionally, Mueller produces unique and limited-run castings using their Disa molding system. These castings require some additional finishing compared to the Lost Foam system. Ductile iron is also sent here to supply the Disa automatic pouring station. After the castings have cooled, they are processed through traditional foundry shakeout methods. Emissions from pouring, cooling, and shakeout ("PCS") operations are controlled by one baghouse (EP-019).

Casting Finishing Operations

After the shakeout process, these sand-mold castings from the Disa Foundry are sent to one of two Wheelabrator Tumblasts for the initial finishing process. Emissions from these Tumblasts are controlled by a baghouse (EP-016). Some castings may need additional abrasive blasting, which is handled by the Pangborn Intermittent Shotblast (EP-005). Once finished with abrasive blasting, these castings are then sent to one of ten pedestal grinders for further refinement (EP-011), then sent to the surface coating building where most of these parts are dip-coated. Emissions from both the Pangborn and pedestal grinders are controlled by a baghouse.

Meanwhile, castings from the upper and lower barrels are sent to a different type of Wheelabrator unit, a Continuous Shotblast, which is part of the Lower Barrel Process. After the continuous shotblasting, castings are then touched up with hand grinding (*i.e.*, grinding with handheld tools instead of pedestal grinders). Emissions from this manual grinding are minimal and considered fugitive within the building.

Surface Coating Operations

The finished Disa castings are sent to the Paint Shop where the separate parts are assembled then dip coating. The lost-foam castings are also transferred to the Paint Shop and assembled before being loaded onto a roller conveyor, transferred to one of several spray coating booths, dried under a heater while slowly rotating for even drying, then prepped for shipping. Emissions from surface coating are not controlled by any add-on control devices and emitted from one of several small roof vents/stacks (EP-080).

POTENTIAL EMISSIONS

Table 1 shows the breakdown and summary of potential emissions from each unit at Mueller (*see* APPENDIX A *for individual unit calculations*).

Emissions were calculated using each baghouse manufacturer's guaranteed output grain-loading (gr/scf), actual stack output flowrate (ACFM) or standard stack output flowrate (scfm), and 8,760 hr/yr of operation. Grain loadings were provided in terms of "standard cubic feet", while stack exhaust was stated in "*actual* cubic feet per minute". The following equation was used to convert ACFM to SCFM:

$$\mathrm{SCFM} = \mathrm{ACFM} \times \left(\frac{T_{\mathrm{NTP}}}{T_{\mathrm{act}} + T_{\mathrm{NTP}}}\right) \times \left(\frac{\Delta P + P_{\mathrm{NTP}}}{P_{\mathrm{NTP}}}\right)$$

Where:

$\mathrm{NTP} =$ "normal temperature and pressure".

$T_{\mathrm{NTP}} = 68\ ^{\circ}\mathrm{F} = 459.67\ ^{\circ}\mathrm{R}.$

$T_{\mathrm{act}} =$ stack exhaust temperature.

$P_{\mathrm{NTP}} = 1\ \mathrm{atm} = 407.189\ \mathrm{in.\ H_2O}.$

$\Delta P =$ differential pressure in. $\mathrm{H_2O}.$

To more conservatively estimate emissions from Mueller, after determining the SCFM, the largest flowrate was used for estimating PM emissions from each stack.

Emissions estimates from Mueller for CY 2023 can be found in APPENDIX B.

Table 1 – Facility PTE (TPY)

FACILITY-WIDE POTIENTIAL TO EMIT CALCULATOR

	FILTERABLE						
TOTALS / PROCESS NAME	PM_{TOTAL}	PM_{10}	$PM_{2.5}$	SO_2	NO_X	VOC	Combined HAP
	96.98	**42.45**	**33.63**	**1.14**	**0.57**	**243.14**	**197.69**
EP-001: 3x Ajax EIF	8.54	8.11	8.03				0.60
EP-003: Pneumatic Sand System	0.23	0.02	0.00				
EP-004: Wheelabrator Shotblast	5.71	3.26	1.71				
EP-009: Lower-Barrel Sand System	28.12	2.25	0.56				
EP-005: Pangborn Shotblast	4.93	2.81	1.48				
EP-011: 10x Pedestal Grinders	4.93	4.68	4.63				
EP-015: Upper-Barrel Sand System	13.98	1.12	0.28				
EP-016: 2x Wheelabrator Tumblasts	5.04	2.87	1.51				
EP-017: 2x Coreless EIF & Inoculation	5.01	4.76	4.71				
EP-019: Disamatic Specialty Foundry	10.02	8.72	8.22				
EP-090: Lost Foam Pouring & Cooling	10.02	3.61	2.31	1.14	0.57	54.09	54.09
EP-080: Surface Coating Operations	—	—	—			189.05	143.00
X091: Shakeout	0.44	0.24	0.18				

STATE REGULATIONS

All sources at Mueller are subject to the applicable sections of Division 335-3 of the ADEM Administrative Code; however, some sources are subject to more stringent standards according to the CODE OF FEDERAL REGULATIONS. For sources/processes not expressly regulated by **40 CFR Part 63, Subpart MMMM** or **Subpart EEEEE**, the applicable requirements of the ADEM Admin Code shall apply.

ADEM ADMIN CODE R. 335-3-4-.01 — CONTROL OF PARTICULATE EMISSIONS: VISIBLE EMISSIONS

Rule 335-3-4-.01(1)

Visible Emissions Restrictions for Stationary Sources.

(a) "No person shall discharge into the atmosphere from any source of emissions, particulate of an opacity greater than that designated as twenty percent (20%) opacity, as determined by a six (6) minute average."

(b) "During one six (6) minute period in any sixty (60) minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent (40%) opacity."

Mueller will conduct daily visual checks of each baghouse stack. If visible emissions greater than 10% opacity are observed, a Method 9 VEO shall be conducted. A record of each check and VEO shall be maintained.

ADEM ADMIN CODE R. 335-3-4-.02 — CONTROL OF PARTICULATE EMISSIONS: FUGITIVE DUST AND FUGITIVE EMISSIONS

Rule 335-3-4-.02(3)

"When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape a building or equipment in such a manner and amount as to cause a nuisance or to violate any rule or regulation, the Director may order that the building or equipment in which processing, handling, and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air."

ADEM ADMIN CODE R. 335-3-4-.03 — CONTROL OF PARTICULATE EMISSIONS: FUEL BURNING EQUIPMENT

All units located at Mueller that combust natural gas are subject to the applicable requirements of this Rule.

Rule 335-3-4-.03(1)

No person shall cause or permit the emissions of particulate matter from fuel-burning equipment in a Class 1 County in excess of the amount shown in Table 4-1 for the heat input allocated to such source.

Rule 335-3-4-.03(4)

New fuel-burning sources emitting particular matter shall be subject to the rules and regulations for Class 1 Counties, paragraph (1) of this rule, regardless of their location.

Since Mueller uses a few miscellaneous gas-fired units (trivial/insignificant sources), this rule shall apply to those units. Mueller is expected to comply with this rule by operating each natural gas-fired unit normally. For emissions reporting purposes, natural gas usage will be recorded from the on-site gas meter and documented with the supplier and monthly usage bill.

ADEM Admin Code r. 335-3-4-.04 — Control of Particulate Emissions: Process Industries - General

All sources located at Mueller (unless otherwise subject to Rule 335-3-4-.03) are subject to the applicable requirements of this Rule.

Rule 335-3-4-.04(1)

The particulate emissions from any source at Mueller shall not exceed the process weight allowable, as interpolated by the following equation:

$$\boldsymbol{E} = 3.59 \times \boldsymbol{P}^{0.62}$$

Where:

$\boldsymbol{P}$ = Process weight in tons per hour (ton/hr);

$\boldsymbol{P} < 30$; and

$\boldsymbol{E}$ = Emissions in pounds per hour (lb/hr).

ADEM Admin. Code r. 335-3-14-.04 — Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration Permitting (PSD)]

To avoid a new source review (NSR) and PSD permitting requirements, Mueller has requested to continue complying with the current numerical limits on certain emission sources and processes for this renewal. *Table 2* shows the Air Permits where these anti-PSD limitations originated prior to being incorporated into the MSOP.

Table 2 – PSD Limitations

Air Permit No.	Issuance Date	Description	Pollutant	Limit (lb/hr)	Limit (TPY)
X001	Mar. 13, 2001	4 Induction Furnaces with Baghouse	PM	7.0	30.7
X003	Mar. 13, 2001	Pneumatic Sand System with Bag Filter	PM	1.0	0.2
X004	June 26, 1991	Wheelabrator Continuous Shotblast	PM	4.1	—
X005	Mar. 13, 2001	Intermittent Shotblast with Bag Filter	PM	5.5	5.5
Z009	May 20, 1998	Sand Reclcying System and Lost Foam Foundry Shotblast Cleaning Machine with New Baghouse	PM	6.1	—
X011	Mar. 13, 2001	Eight Pedestal Grinders with Baghouse	PM	5.6	24.5
X015	Dec. 18, 1998	Lost Foam Foundry Sand Recycling System with Baghouse	PM	2.8	12.26
X016	Mar. 13, 2001	Two Wheelabrator Tumblast Systems with Baghouse	PM	1.0	4.4
X017[1]	Apr. 29, 2002	Coreless Induction Melting Furnace (10 TPH) with Baghouse	PM	4.0	17.52
X018[1]	Apr. 29, 2002	Ductile Iron Treatment with Baghouse			
X019	Apr. 29, 2002	Disamatic Mold System with Baghouse	PM	25.0	93.6

[1] X017 and X018 are both ducted to the same emission point (EP-017) and share the same anti-PSD limit.

ADEM Admin. Code r. 335-3-16-.03 — Major Source Operating Permits

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16: *Major Source Operating Permits*.

Rule 335-3-13-.01(1)(q)1.(i)

> "For pollutants other than radionuclides, 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, in the aggregate, [...] 25 TPY or more of any combination of such hazardous air pollutants".

Since this facility has the potential to emit greater than 25 TPY of total HAP emissions, Mueller is classified as a major source and shall remain subject to the rules and regulations applicable to major sources.

Rule 335-3-13-.05(c)1.(ii)

> "Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring [...], [Permits shall contain] periodic monitoring sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit [...]. In certain instances, record keeping provisions may be sufficient to meet the requirements of this paragraph".

Mueller will be subject to several monitoring and recordkeeping requirements, such as daily visible emission checks, daily pressure drop readings for each baghouse, and weekly/quarterly baghouse inspection/maintenance activities.

FEDERAL REGULATIONS

40 CFR PART 63, SUBPART A — GENERAL PROVISIONS

This subpart applies to facilities who maintain or operate an affected source under **Part 63**. Since Mueller operates an affected source under **subparts MMMM** and **EEEEE**, this foundry will be subject to the standards under **Subpart A** according to *Table 1 to Subpart EEEEE*, while the coating operations at this facility will be subject to the standards under **Subpart A** according to *Table 2 to Subpart MMMM*. Additionally, **subparts MMMM** and **EEEEE** explicitly cite several of the requirements of **Subpart A**. The following citations are found within these **subparts** and apply to Mueller.

40 CFR 63.2 "Major Source"

> *Major source* means 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 hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

40 CFR 63.6(h)

(h) **Compliance with opacity and visible emission standards** —

(1) [...]

(2) [...]

(3) [...]

(4) ***Notification of opacity or visible emission observations.*** The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) ***Conduct of opacity or visible emission observations.*** When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) [...]

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

40 CFR 63.7(b)

(b) ***Notification of performance test.***

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

40 CFR 63.7(c)

(c) ***Quality assurance program.***

(1) [...]

(2)

(i) ***Submission of site-specific test plan***. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) [...]

(iii) [...]

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

40 CFR 63.8(c)

(c) **Operation and maintenance of continuous monitoring systems**.

(7)

(i) A CMS is out of control if —

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

40 CFR 63.8(d)(2)

(d) **Quality control program**.

(1) [...]

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

40 CFR 63.8(e)(4)

(e) **Performance evaluation of continuous monitoring systems** —

(4) ***Conduct of performance evaluation and performance evaluation dates.*** The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

40 CFR 63.8(g)(2)

(g) ***Reduction of monitoring data.***

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

40 CFR 63.10(b)

(b) **General recordkeeping requirements**.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

(3) [...]

(i) [...]

(ii) All required maintenance performed on the air pollution control and monitoring equipment;

(iii) [...]

(iv) [...]

(v) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vi) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(vii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(viii) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(ix) All CMS calibration checks;

(x) All adjustments and maintenance performed on CMS;

(xi) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiii) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

40 CFR 63.14(r)(2)(iii)

(r) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605–6000 or (800) 553–6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800.

(1) [...]

(2) “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, Third Edition. (A suffix of “A” in the method number indicates revision one (the method has been revised once). A suffix of “B” in the method number indicates revision two (the method has been revised twice).

(i) [...]

(ii) [...]

(iii) Method 9095A, “Paint Filter Liquids Test,” dated December 1996, IBR approved for §§ 63.7700(b) and 63.7765.

40 CFR Part 63, Subpart MMMM — National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

Applicability

40 CFR 63.3881

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations.

(3) [...]

(4) [...]

(5) [...]

(6) [...]

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is 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 any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in § 63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

Since Mueller is a major source of HAP emissions and surface coats some their various products using spray guns and/or dip tanks and conducts coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations, this facility is subject to **Subpart MMMM**.

40 CFR 63.3381(c)

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to § 63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

(4) The surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(5) Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating. [...]

The remaining paragraphs of the above section list various other subparts which cover the coating operations of specific products and/or processes. These various subparts include **40 CFR Part 63, subparts GG**, **II**, **JJ**, **IIII**, **JJJJ**, **NNNN**, **PPPP**, **QQQQ**, **RRRR**, **SSSS**, and **VVVV**, none of which apply to Mueller. Therefore, the coatings utilized at this facility are classified as "general use" and the facility is classified as "existing general use coating affected source" for the purposes of complying with **Subpart MMMM**.

40 CFR 63.3882

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in § 63.3881(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of miscellaneous metal parts and products within each subcategory.

(1) All coating operations as defined in § 63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

(d) An affected source is reconstructed if it meets the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

The affected sources at Mueller were constructed prior to August 13, 2002. Therefore, they are classified as existing affected sources.

40 CFR 63.3883

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.3940, 63.3950, and 63.3960.

(a) [...]

(b) For an existing affected source, the compliance date is the date 3 years after January 2, 2004.

Emission Limitations

40 CFR 63.3890(b)

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.3941, § 63.3951, or § 63.3961.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

40 CFR 63.3891

You must include all coatings (as defined in § 63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.3930(c), and you must report it in the next semiannual compliance report required in § 63.3920.

(a) [...]

(b) ***Emission rate without add-on controls option.*** Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.

Mueller will continue to utilize the option in **paragraph (b)** of this section to demonstrate compliance with the emissions limitations under **40 CFR 63.3890(b)**.

40 CFR 63.3892

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

40 CFR 63.3893

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

General Compliance Requirements

40 CFR 63.3900

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.3891(a) and (b), must be in compliance with the applicable emission limit in § 63.3890 at all times.

(2) [...]

(b) [...] On and after January 5, 2021, at all times, the owner or operator 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. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.

(c) [...] On and after January 5, 2021, the [startup, shutdown, and malfunction plan] is not required.

40 CFR 63.3910

Mueller has previously complied with all notification requirements for its existing affected sources, and therefore, the requirements under **40 CFR 63.3910** will not be included in the Permit.

40 CFR 63.3920

(a) ***Semiannual compliance reports.*** You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) ***Dates.*** Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3940, § 63.3950, or § 63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) ***Inclusion with title V report.*** Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) ***General requirements.*** The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in § 63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§ 63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§ 63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) ***No deviations.*** If there were no deviations from the emission limitations in §§ 63.3890, 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) [...]

(6) ***Deviations: Emission rate without add-on controls option.*** If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.3890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iv) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of § 63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4). You do not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports).

(iii) [...] On and after January 5, 2021, a statement of the cause of each deviation (including unknown cause, if applicable).

(iv) On and after January 5, 2021, the number of deviations and, for each deviation, the date, time, duration, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in § 63.3890, a description of the method used to estimate the emissions, and the actions you took to minimize emissions in accordance with § 63.3900(b).

(7) [...]

(b) [...]

(c) [...]

(d) [...]

(e) [...]

(f) ***Semiannual compliance reports.*** On and after January 5, 2021, or once the reporting template has been available on the CEDRI website for 1 year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in paragraph (a) of this section to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*). The date report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate addresses listed in § 63.13. Once the form has been available in CEDRI for 1 year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(g) ***Reporting during EPA system outages.*** If you are required to electronically submit a report through the CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of the EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time, and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of the EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(h) ***Reporting during force majeure events.*** If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

40 CFR 63.3930

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under § 63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under § 63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) [...]

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of § 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of § 63.3951.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. [...]

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(h) [...]

(i) [Reserved]

(j) [...] On and after January 5, 2021, for each deviation from an emission limitation reported under § 63.3920(a)(5) through (7), a record of the information specified in paragraphs (j)(1) through (4) of this section, as applicable.

(1) The date, time, and duration of the deviation, as reported under § 63.3920(a)(5) through (7).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under § 63.3920(a)(5) through (7).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in § 63.3890 or any applicable operating limit in table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under § 63.3920(a)(5) through (7).

(4) A record of actions taken to minimize emissions in accordance with § 63.3900(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(k) [...]

40 CFR 63.3931

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. On and after January 5, 2021, any records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off-site for the remaining 3 years.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

40 CFR 63.3951

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. [...] To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in § 63.3890, but is not required to meet the operating limits or work practice standards in §§ 63.3892 and 63.3893, respectively. [...] You must meet all the requirements of this section. [...] If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) ***Determine the mass fraction of organic HAP for each material.*** Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in § 63.3941(a).

(b) ***Determine the volume fraction of coating solids.*** Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in § 63.3941(b).

(c) ***Determine the density of each material.*** Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM D1475–13 or ASTM D2111–10 (Reapproved 2015) (both incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM D5965–02 (Reapproved 2013) (incorporated by reference, see § 63.14), or information from the supplier. If there is disagreement between ASTM D1475–13 or ASTM D2111–10 (Reapproved 2015) test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) ***Determine the volume of each material used.*** Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of this section.

(e) ***Calculate the mass of organic HAP emissions.*** The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

Equation 1

$$\mathbf{H_e = A + B + C - R_w}$$

Where:

$\mathbf{H_e}$ = Total Mass of Organic HAP emissions during the month (kg)

$\mathbf{A}$ = Total mass of organic HAP in the coatings used during the month, kg, as calculated in *Equation 1A* of this section.

$\mathbf{B}$ = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in *Equation 1B* of this section.

$\mathbf{C}$ = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in *Equation 1C* of this section.

$\mathbf{R_w}$ = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

Equation 2A

$$\mathbf{A} = \sum_{i=1}^{m} (Vol_{c,i})\,(D_{c,i}))(W_{c,i})$$

Where:

$\mathbf{A}$ = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, *i*, used during the month, liters.

$D_{c,i}$ = Density of coating, *i*, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, *i*, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

Equation 3A

$$\mathbf{B} = \sum_{j=1}^{n} (Vol_{t,j})\,(D_{t,j}))(W_{t,j})$$

Where:

$\mathbf{B}$ = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,i}$ = Total volume of thinner and/or other additive, *j*, used during the month, liters.

$D_{t,i}$ = Density of thinner and/or other additive, *j*, kg per liter.

$W_{t,i}$ = Mass fraction of organic HAP in thinner and/or other additive, *j*, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

Equation 1C

$$\mathbf{C} = \sum_{k=1}^{p} (Vol_{s,k})\,(D_{s,k}))(W_{s,k})$$

Where:

$\mathbf{C}$ = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, *k*, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, *k*, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, *k*, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(f) ***Calculate the total volume of coating solids used.*** Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:

Equation 4

$$V_{s,t} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i})$$

Where:

$V_{s,t}$ = Total volume of coating solids used during month, liters.

$Vol_{c,i}$ = Total volume of coating, *i*, used during the month, liters.

$Vol_{s,i}$ = Volume fraction of coating solids for coating, *i*, liter solids per liter coating, determined according to § 63.3941(b).

$V_{s,t}$ = Number of coatings used during the month.

(g) ***Calculate the organic HAP emission rate.*** Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of this section:

Equation 5

$$H_{yr} = \sum_{y=1}^{n} H_e \Big/ \sum_{y=1}^{n} V_{st}$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, *y*, kg, as calculated by Equation 1 of this section.

$V_{s,t}$ = Total volume of coating solids used during month, *y*, liters, as calculated by Equation 2 of this section.

y = Identifier for months.

p = Number of full or partial months in the compliance period (for the initial compliance period, *n* equals 12 if the compliance date falls on the first day of a month; otherwise *n* equals 13; for all following compliance periods, *n* equals 12).

(h) ***Compliance demonstration.*** The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in § 63.3890 or the predominant activity or facility-specific emission limit allowed in § 63.3890(c). You must keep all records as required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required by § 63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3890, determined according to the procedures in this section.

40 CFR 63.3952

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.3951(a) through (g), must be less than or equal to the applicable emission limit in § 63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(6).

(c) As part of each semiannual compliance report required by § 63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3890, determined according to § 63.3951(a) through (g).

(d) You must maintain records as specified in §§ 63.3930 and 63.3931.

40 CFR Part 63, Subpart EEEEE — National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries

Applicability

40 CFR 63.7681

> You are subject to this subpart if you own or operate an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year as defined in § 63.2.

Mueller is an iron foundry as defined by **40 CFR 63.7765** and has the potential to emit greater than 25 TPY of combined HAP. Therefore, this facility is subject to the major source standards for iron and steel foundries.

40 CFR 63.7682

(a) The affected source is each new or existing iron and steel foundry.

(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.

Subpart EEEEE defines an affected source as "each new or existing iron and steel foundry". **(40 CFR 63.7682(a)**). This subpart also defines an iron and steel foundry as "a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce" (**40 CFR 63.7765**). Mueller is a foundry that contains melting, pouring, and production operations and produces unique near-final shape products for introduction into commerce. Therefore, Mueller is an affected source.

Since this facility was constructed prior to December 23, 2002, Mueller is classified as an existing affected source and subject to the existing source standards of **Subpart EEEEE**.

Emissions Limitations

40 CFR 63.7690

(a) You must meet the emissions limits or standards in paragraphs (a)(1) through (11) of this section that apply to you. When alternative emissions limitations are provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limitation is used to demonstrate compliance.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in paragraph (a)(1)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(1)(ii) of this section:

(i) 0.005 grains of PM per dry standard cubic foot (gr/dscf), or

(ii) 0.0004 gr/dscf of total metal HAP.

(2) [...]

(3) [...]

(4) [...]

(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:

(i) 0.010 gr/dscf of PM, or

(ii) 0.0008 gr/dscf of total metal HAP.

(6) [...]

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

Note that the opacity requirement does not apply to the Paint Shop, since this building is completely separate from the foundry. Additionally, according to the submitted renewal application and all previous performance tests, Mueller intends to continue complying with the numerical PM emission limitations instead of MHAP; however, as allowed under **Subpart EEEEE**, Mueller may still test for MHAP instead of PM as long as this is expressly stated/declared in their required site-specific testing plan (SSTP).

Work Practice Standards

Since this facility will continue melting metallic scrap, Mueller must comply with at least one of the metallic scrap management programs according to the following:

40 CFR 63.7700

(a) For each segregated scrap storage area, bin or pile, you must either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section. You may have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.

(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids. For the purpose of this paragraph (b), “free organic liquids” is defined as material that fails the paint filter test by EPA Method 9095A, “Paint Filter Liquids Test” (Revision 1, December 1996), as published in EPA Publication SW–846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (incorporated by reference—see § 63.14). Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification.

(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.

(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; [...]

(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must either obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable, or document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.

(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.

(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.

(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.

(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.

(iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.

Operation & Maintenance Requirements

40 CFR 63.7710

(a) You must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to a PM[...] emissions limit in § 63.7690(a) [...]. Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.

(1) ***Monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches).*** This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.

(2) [...]

(3) ***Preventative maintenance plan for each control device***, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(4) ***A site-specific monitoring plan for each bag leak detection system.*** For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output will be recorded and stored.

(5) ***Corrective action plan for each baghouse.*** The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:

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

(ii) Sealing off defective bags or filter media.

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

(iv) Sealing off a defective baghouse compartment.

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

(vi) Making process changes.

(vii) Shutting down the process producing the PM emissions.

(6) ***Procedures for providing an ignition source to mold vents of sand mold systems*** *in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues.* You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and

(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

With the exception of **paragraph (b)(2)**, each of the above operation and maintenance plans will apply to the cupola furnace and pouring stations, all of which have a numerical PM limit specified under **40 CFR 63.7690(a)**. The above operation and maintenance plans do not apply to units at Mueller which are subject only to the opacity limit under **40 CFR 63.7960(a)(7)**.

General Compliance Requirements

40 CFR 63.7720

(a) [...] After March 9, 2021, for affected sources that commenced construction or reconstruction on or before September 10, 2020, and upon startup for affected sources that commenced construction or reconstruction after September 10, 2020, you must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times.

(b) [...]

(c) [...] After March 9, 2021, for affected sources that commenced construction or reconstruction on or before September 10, 2020, and upon startup for affected sources that commenced construction or reconstruction after September 10, 2020, the startup, shutdown, and malfunction plan requirements no longer apply.

Since this facility began operation prior to September 10, 2020, Mueller must be operating at all times in compliance with all the applicable provisions of **Subpart EEEEE**, as detailed in this analysis, including period of startup, shutdown, and malfunction (SSM).

Regarding the SSM plan, the United States Court of Appeals for the District of Columbia Circuit decision in *Sierra Club* v. *EPA*, 551 F. 3d 1019 (D.C. Cir. 2008) vacated **40 CFR 63.6(f)(1)** and **(h)(1)** that exempted sources from the requirement to comply with the otherwise applicable emissions standards during periods of SSM, and therefore, all **Part 63** regulations are now to apply continuously, including during periods of SSM (*see 84 FR 54415, § III.D*).

Initial Compliance Requirements

Mueller has already conducted the necessary performance tests and other initial compliance demonstrations and fulfilled all the one-time requirements of **40 CFR 63.7730**, **63.7734**, **63.7735**, and **63.7736**.

40 CFR 63.7731

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM [...] emissions limitations in § 63.7690 for your iron and steel foundry no less frequently than every 5 years and each time you elect to change an operating limit or to comply with a different alternative emissions limit, if applicable. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.

(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in § 63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.

Mueller shall conduct PM (or MHAP) performance tests on the baghouses associated with the EIFs and pouring stations at least once every 5 years, and a Method 9 visible emissions observation (VEO) for the foundry buildings/structures at least once every 6 months. The procedures for these tests are described under **40 CFR 63.7732**.

40 CFR 63.7732

(a) You must conduct each performance test that applies to your iron and steel foundry based on your selected compliance alternative, if applicable, according to the requirements in paragraphs (b) through (i) of this section. Each performance test must be conducted under conditions representative of normal operations. Normal operating conditions exclude periods of startup and shutdown. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) To determine compliance with the applicable emissions limit for PM in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. [...]

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. [...]

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) [...]

(4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(5) [...]

(6) Determine the total mass of metal charged to the furnace or scrap preheater. For a cupola metal melting furnace at an existing iron and steel foundry that is subject to the PM emissions limit in § 63.7690(a)(ii), calculate the PM emissions rate in pounds of PM per ton (lb/ton) of metal charged using Equation 1 of this section:

$$EF_{PM} = C_{PM} \times \left(\frac{Q}{M_{charge}}\right) \times \left(\frac{t_{test}}{7{,}000}\right)$$

Equation 1

Where:

EF_{PM} = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged;

C_{PM} = Concentration of PM measured during performance test run, gr/dscf;

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm);

M_{charge} = Mass of metal charged during performance test run, tons;

t_{test} = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, grains per pound (gr/lb).

Mueller must continue conducting 5-year PM performance tests and shall follow **§ 63.7732(b)(1)**, **(2)**, and **(6)** for all PM performance testing and **paragraph (b)(4)** for the EIFs. Alternatively, Mueller may elect to demonstrate compliance with the MHAP limit(s) in accordance with **§ 63.7732(c)**.

40 CFR 63.7732(d)

(d) To determine compliance with the opacity limit in § 63.7690(a)(7) for fugitive emissions from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and § 63.6(h)(5). The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.

(2) During testing intervals when PM performance tests, if applicable, are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests.

Since **§ 63.7732(d)(1)** cites **§ 63.6(h)(5)** as a requirement for conducting each opacity performance test, Mueller will be required to conduct three, one-hour runs using Method 9 of Appendix A-4 to 40 CFR Part 60, as provided under **§ 63.6(h)(5)(ii)**.

40 CFR 63.7732(h)

(h) To determine compliance with the PM or total metal HAP emissions limits in § 63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.

(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

The option under **paragraph (h)(1)** is required for Mueller to demonstrate compliance with the applicable Anti-PSD limits for PM. However, Mueller may elect to implement the options in **paragraphs (h)(2)** or **(3)** if only demonstrating compliance with the applicable **Subpart EEEEE** limits.

40 CFR 63.7732(i)

(i) To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time, or other situations that are not expressly considered in paragraphs (b) through (h) of this section, a site-specific test plan should be submitted to the Administrator for approval according to the requirements in § 63.7(c)(2) and (3).

Since **Subpart EEEEE** contains multiple options for determining compliance and this facility can operate under various scenarios, Mueller will be required to submit a site-specific test plan at least 60 days prior to any scheduled non-opacity performance test detailing the chosen compliance options, means and methods for determining compliance, and all other required information under **Subpart A** and **Subpart EEEEE**.

Continuous Compliance Requirements

40 CFR 63.7740

(a) [...]

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in § 63.7741(b).

(c) For each baghouse, regardless of type, that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must conduct inspections at their specified frequencies according to the requirements specified in paragraphs (c)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply for pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

40 CFR 63.7741

(a) [...]

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the operation and maintenance plan required by § 63.7710(b).

(6) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

40 CFR 63.7742

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

40 CFR 63.7743

(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section. When alternative emissions limitations are provided for a given emissions source, you must comply with the alternative emissions limitation most recently selected as your compliance alternative.

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.

(2) [...]

(3) [...]

(4) [...]

(5) For each pouring station at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.

(6) [...]

(7) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions from foundry operations discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) [...]

(9) [...]

(10) [...]

(11) [...]

(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in § 63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in § 63.7690(a)(7).

(b) [...]

(c) For each baghouse,

(1) Inspecting and maintaining each baghouse according to the requirements of § 63.7740(c)(1) through (8) and recording all information needed to document conformance with these requirements; and

(2) If the baghouse is equipped with a bag leak detection system, maintaining records of the times the bag leak detection system sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

40 CFR 63.7744

(a) You must maintain records that document continuous compliance with the certification requirements in § 63.7700(b) or with the procedures in your scrap selection and inspection plan required in § 63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in § 63.7700(d).

40 CFR 63.7745

(a) For each capture system and control device for an emissions source subject to an emissions limit in § 63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of § 63.7710 by:

(1) Making monthly inspections of capture systems and initiating corrective action according to § 63.7710(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by § 63.7710(b)(3) and recording all information needed to document conformance with these requirements;

(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by § 63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;

(4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by § 63.7710(b)(5) and recording all information needed to document conformance with these requirements; and

(5) Igniting gases from mold vents according to the procedures in the plan required by § 63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)

(b) You must maintain a current copy of the operation and maintenance plans required by § 63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.

40 CFR 63.7746

(a) ***Deviations.*** You must report each instance in which you did not meet each emissions limitation in § 63.7690 (including each operating limit) that applies to you. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in § 63.7700 and each operation and maintenance requirement of § 63.7710 that applies to you. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of § 63.7751.

Notifications, Reports, & Records

40 CFR 63.7750

(a) You must submit all of the notifications required by §§ 63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.

(b) [...]

(c) [...]

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by § 63.7(b)(1).

40 CFR 63.7751

(a) ***Compliance report due dates.*** Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by § 63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) ***Compliance report contents.*** Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) [Reserved]

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was inoperable or out-of-control as specified by § 63.8(c)(7), a statement that there were no periods during which the CPMS was inoperable or out-of-control during the reporting period.

(7) For each affected source or equipment for which there was a deviation from an emissions limitation (including an operating limit, work practice standard, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, the compliance report must contain the information specified in paragraphs (b)(7)(i) through (iii) of this section. The requirement in this paragraph (b)(7) includes periods of startup, shutdown, and malfunction.

(i) A list of the affected source or equipment and the total operating time of each emissions source during the reporting period.

(ii) For each deviation from an emissions limitation (including an operating limit, work practice standard, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, report:

(A) (A) The date, start time, duration (in hours), and cause of each deviation (characterized as either startup, shutdown, control equipment problem, process problem, other known cause, or unknown cause, as applicable) and the corrective action taken; and

(B) (B) An estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(iii) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period.

(8) For each continuous monitoring system (including a CPMS or CEMS) used to comply with the emissions limitation or work practice standard in this subpart that was inoperable or out-of-control during any portion of the reporting period, you must include the information specified in paragraphs (b)(8)(i) through (vi) of this section. The requirement in this paragraph (b)(8) includes periods of startup, shutdown, and malfunction.

(i) A brief description of the continuous monitoring system, including manufacturer and model number.

(ii) The date of the latest continuous monitoring system certification or audit.

(iii) A brief description and the total operating time of the affected source or equipment that is monitored by the continuous monitoring system during the reporting period.

(iv) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(v) For each period for which the continuous monitoring system was inoperable or out-of-control during the reporting period, report:

(A) (A) The date, start time, and duration (in hours) of the deviation;

(B) (B) The type of deviation (inoperable or out-of-control); and

(C) (C) The cause of deviation (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes, as applicable) and the corrective action taken.

(vi) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period.

(c) [Reserved]

(d) ***Part 70 monitoring report.*** If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an iron and steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.

(e) ***Compliance report submission requirements.*** [...] Beginning on March 9, 2021, you must submit all subsequent semiannual compliance reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. You must use the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If you claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI, submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (e). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 112(g), emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(f) ***Performance test results submission requirements.*** Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (f)(1) through (3) of this section.

(1) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test. Submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website.

(2) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) ***Confidential business information.*** The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Anything submitted using CEDRI cannot later be claimed to be CBI. Although we do not expect persons to assert a claim of CBI, if you claim some of the information submitted under paragraph (f)(1) or (2) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (f)(1) of this section. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 112(g) emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(g) ***Performance evaluation results submission requirements.*** Within 60 days after the date of completing each continuous monitoring system (CMS) performance evaluation (as defined in § 63.2), you must submit the results of the performance evaluation following the procedures specified in paragraphs (g)(1) through (3) of this section.

(1) Performance evaluations of CMS measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation. Submit the results of the performance evaluation to the EPA via CEDRI, which can be accessed through the EPA's CDX. The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website.

(2) Performance evaluations of CMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation. The results of the performance evaluation must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) ***Confidential business information.*** The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Anything submitted using CEDRI cannot later be claimed to be CBI. Although we do not expect persons to assert a claim of CBI, if you claim some of the information submitted under paragraph (g)(1) or (2) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (g)(1) of this section. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 112(g) emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(h) ***Claims of EPA system outage.*** If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (h)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date and time when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(v) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(6) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(i) ***Claims of force majeure.*** If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (i)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

40 CFR 63.7752

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of § 63.10(b)(2)(xiv).

(2) Records of required maintenance performed on the air pollution control and monitoring equipment as required by § 63.10(b)(2)(iii).

(3) Records of performance tests and performance evaluations as required by § 63.10(b)(2)(viii).

(4) Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation).

(b) [...]

(c) You must keep the records required by §§ 63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

(d) You must keep the following records for each failure to meet an emissions limitation (including operating limit), work practice standard, or operation and maintenance requirement in this subpart.

(1) Date, start time, and duration of each failure.

(2) List of the affected sources or equipment for each failure, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(3) Actions taken to minimize emissions in accordance with § 63.7710(a), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(e) Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

40 CFR 63.7753

(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in § 63.10(b)(1). You can keep the records for the previous 3 years offsite.

40 CFR Part 64 — Compliance Assurance Monitoring (CAM)

Applicability

40 CFR 64.2

(a) ***General applicability***. [...] the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:

(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;

(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and

(3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in § 64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

(b) ***Exemptions*** –

(1) ***Exempt emission limitations or standards.*** The requirements of this part shall not apply to any of the following emission limitations or standards:

(i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

The following sources at Mueller meet the general applicability criteria in 40 CFR 64.2(a): EP-001, EP-004, EP-005, EP-009, EP-011, EP-015, EP-016, EP-017, EP-019, and EP-090. However, EP-001, EP-017, EP-019, and EP-090 meet the exemption in 40 CFR 64.2(b)(1)(i) because they are subject to a PM standard in **Subpart EEEEE**. EP-080 is not equipped with a control device, and the silo bin vent filters on EP-003 are considered to be inherent process equipment.

Therefore, CAM plans have been included in the permit for EP-004, EP-005, EP-009, EP-011, EP-015, and EP-016.

RECOMMENDATIONS

Based on the above analysis, the facility should be able to meet the requirements of this permit and all applicable state and federal air pollution regulations. Pending the 30-day public comment period and 45-day EPA review period, I recommend that Mueller Co. be issued the fourth renewal of Major Source Operating Permit No. 711–0013.

Digitally signed by JP Gravitt
Date: 03 Jul 2025, 10:31

JP GRAVITT
Industrial Minerals Section
Energy Branch
Air Division
ADEM

APPENDIX A — UNIT SPECIFIC PTE CALCULATIONS

GRAIN LOADING CALCULATIONS
EP-001: 3x Ajax EIF

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	6.0	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	120	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	45,500	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**42,029**	**SCFM**
PM Load =	0.005	gr/dscf	**PTE (PM) =**	**7.89**	**TPY**

EP-001: 3x Ajax EIF		
Stack Flowrate =	45,500	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.005	gr/dscf
PTE (PM) =	**8.54**	**TPY**
PM_{10} =	**8.11**	95%
$PM_{2.5}$ =	**8.03**	94%

GRAIN LOADING CALCULATIONS
EP-003: Pneumatic Sand System

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	6.0	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	68	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	200	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**203**	**SCFM**
PM Load =	0.03	gr/dscf	**PTE (PM) =**	**0.23**	**TPY**

EP-003: Pneumatic Sand System

Stack Flowrate =	203	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.03	gr/dscf
PTE (PM) =	**0.23**	**TPY**
PM_{10} =	**0.02**	8%
$PM_{2.5}$ =	**0.00**	2%

GRAIN LOADING CALCULATIONS
EP-004: Wheelabrator Shotblast

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	68	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	15,000	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**15,221**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**5.71**	**TPY**

EP-004: Wheelabrator Shotblast		
Stack Flowrate =	15,221	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**5.71**	**TPY**
PM_{10} =	**3.26**	57%
$PM_{2.5}$ =	**1.71**	30%

GRAIN LOADING CALCULATIONS
EP-009: Lower-Barrel Sand System

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	94	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	74,906	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**72,440**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**27.20**	**TPY**

EP-009: Lower-Barrel Sand System		
Stack Flowrate =	74,906	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**28.12**	**TPY**
PM_{10} =	**2.25**	8%
$PM_{2.5}$ =	**0.56**	2%

GRAIN LOADING CALCULATIONS

EP-005: Pangborn Shotblast

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	4.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	68	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	13,000	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**13,128**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**4.93**	**TPY**

EP-005: Pangborn Shotblast		
Stack Flowrate =	13,128	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**4.93**	**TPY**
PM_{10} =	**2.81**	57%
$PM_{2.5}$ =	**1.48**	30%

GRAIN LOADING CALCULATIONS

EP-011: 10x Pedestal Grinders

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	4.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	68	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	13,000	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**13,128**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**4.93**	**TPY**

EP-011: 10x Pedestal Grinders		
Stack Flowrate =	13,128	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**4.93**	**TPY**
PM_{10} =	**4.68**	95%
$PM_{2.5}$ =	**4.63**	94%

GRAIN LOADING CALCULATIONS

EP-015: Upper-Barrel Sand System

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	94	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	37,250	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**36,024**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**13.52**	**TPY**

EP-015: Upper-Barrel Sand System		
Stack Flowrate =	37,250	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**13.98**	**TPY**
PM_{10} =	**1.12**	8%
$PM_{2.5}$ =	**0.28**	2%

GRAIN LOADING CALCULATIONS

EP-016: 2x Wheelabrator Tumblasts

CONSTANTS			VARIABLES		
7,000 gr =	1	lb	ΔP =	13.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	68	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	13,000	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**13,415**	**SCFM**
PM Load =	0.01	gr/dscf	**PTE (PM) =**	**5.04**	**TPY**

EP-016: 2x Wheelabrator Tumblasts		
Stack Flowrate =	13,415	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**5.04**	**TPY**
PM_{10} =	**2.87**	57%
$PM_{2.5}$ =	**1.51**	30%

GRAIN LOADING CALCULATIONS

EP-017: 2x Coreless EIF & Inoculation

CONSTANTS			*VARIABLES*		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	120	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	26,700	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**24,663**	**SCFM**
PM Load =	0.005	gr/dscf	**PTE (PM) =**	**4.63**	**TPY**

EP-017: 2x Coreless EIF & Inoculation		
Stack Flowrate =	26,700	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.005	gr/dscf
PTE (PM) =	**5.01**	**TPY**
PM_{10} =	**4.76**	95%
$PM_{2.5}$ =	**4.71**	94%

GRAIN LOADING CALCULATIONS

EP-019: Disamatic Specialty Foundry

CONSTANTS			*VARIABLES*		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	110	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	26,700	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**25,096**	**SCFM**
PM Load =	0.010	gr/dscf	**PTE (PM) =**	**9.42**	**TPY**

EP-019: Disamatic Specialty Foundry		
Stack Flowrate =	26,700	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**10.02**	**TPY**
PM_{10} =	**8.72**	87%
$PM_{2.5}$ =	**8.22**	82%

GRAIN LOADING CALCULATIONS

EP-090: Lost Foam Pouring & Cooling

CONSTANTS			*VARIABLES*		
7,000 gr =	1	lb	ΔP =	6.00	in. H_2O
Amb. Temp (68°F) =	527.67	°R	Stack Temp =	110	°F
Operating Hours =	8,760	hr/yr	Stack Flowrate =	26,700	ACFM
Abs. Pressure (1 atm) =	407.189	in. H_2O	=	**25,096**	**SCFM**
PM Load =	0.010	gr/dscf	**PTE (PM) =**	**9.42**	**TPY**

EP-090: Lost Foam Pouring & Cooling		
Stack Flowrate =	26,700	SCFM
Operating Hours =	8,760	hr/yr
PM Load =	0.01	gr/dscf
PTE (PM) =	**10.02**	**TPY**
PM_{10} =	**3.61**	36%
$PM_{2.5}$ =	**2.31**	23%

APPENDIX B — 2022-2023 AEERS EMISSIONS SUMMARY

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Alabama Department of Environmental Management
Previous 2 Years Emissions

711-0013 Mueller, Co. - Albertville

Plant-Wide Total Emissions

Pollutant		2022	2023
100414	Ethyl Benzene (aka Phenylethane)	5.302000	5.111000
100425	Styrene (aka Ethenylbenzene)	3.200000	2.550000
108101	Methyl Isobutyl Ketone (Hexone)	24.608000	14.767000
108883	Toluene (aka Methylbenzene)	22.839000	20.957000
1330207	Xylenes (Isomers And Mixtures)	26.391000	24.136000
67561	Methanol	4.721000	2.838000
ASC	Arsenic Compounds (inorganic Including Arsine)	0.001100	0.000900
BZ	Benzene (includes Benzene From Gasoline)	1.700000	1.360000
CDC	Cadmium Compounds	0.005200	0.004200
COC	Cobalt Compounds	0.013000	0.008000
CRC	Chromium Compounds	0.006600	0.005300
HGC	Mercury Compounds	0.002500	0.002000
MNC	Manganese Compounds	0.235400	0.204400
NIC	Nickel Compounds	0.046800	0.018700
NOX	Nitrogen Oxides	0.050000	0.040000
PB	Lead (not reported in other categories)	0.122000	0.097700
PM10	Particulate Matter <10 microns (includes PM2.5) - F	32.702000	9.113000
PM2.5	Particulate Matter <2.5 microns - Filterable	28.781000	7.001000
PT	Particulate Matter Total (includes PM10 and PM2.5)	53.725000	24.215000
SBC	Antimony Compounds	0.043000	0.015000
SO2	Sulfur Dioxide	0.100000	0.080000
VOC	Volatile Organic Compounds (not reported in other c	75.061000	112.092000

A Detailed Summary of Reported Emissions follows:

Emissions Source: Stack 001 - Baghouse w/ Four Elec Ind Furn

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.230000	0.200000	MNC	Manganese Compounds
0.100000	0.080000	PB	Lead (not reported in other categories)
2.790000	0.510000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
2.760000	0.510000	PM2.5	Particulate Matter <2.5 microns - Filterable
2.940000	0.540000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 002 - Disamatic Mold System w/ Baghous

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
23.280000	5.030000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
21.940000	4.740000	PM2.5	Particulate Matter <2.5 microns - Filterable
26.760000	5.780000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 004 - Baghouse w/ Continuous Shotblast

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
1.100000	1.040000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte

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Previous 2 Years Emissions

711-0013 Mueller, Co. - Albertville

0.580000	0.550000	PM2.5	Particulate Matter <2.5 microns - Filterable
1.940000	1.820000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 005 - Bagfilter w/ Intermittent Shotblast

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.960000	0.400000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.510000	0.210000	PM2.5	Particulate Matter <2.5 microns - Filterable
1.690000	0.710000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 009 - Baghouse w/ Sand Recycling

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.800000	0.750000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.200000	0.190000	PM2.5	Particulate Matter <2.5 microns - Filterable
10.050000	9.440000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 011 - Eight Pedestal Grinders with Bagho

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.320000	0.300000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.170000	0.160000	PM2.5	Particulate Matter <2.5 microns - Filterable
0.560000	0.520000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 015 - Lost Foam Foundry Sand Recycling

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.400000	0.340000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.110000	0.090000	PM2.5	Particulate Matter <2.5 microns - Filterable
4.591000	4.300000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 016 - Two Wheelabrator Tumblast Shotbl

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.320000	0.300000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.170000	0.160000	PM2.5	Particulate Matter <2.5 microns - Filterable
0.550000	0.520000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 017 - Coreless Induction Melting Furnace

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.001100	0.000900	ASC	Arsenic Compounds (inorganic Including Arsine)
0.005200	0.004200	CDC	Cadmium Compounds
0.006600	0.005300	CRC	Chromium Compounds
0.002500	0.002000	HGC	Mercury Compounds
0.005400	0.004400	MNC	Manganese Compounds
0.005800	0.004700	NIC	Nickel Compounds
0.022000	0.017700	PB	Lead (not reported in other categories)
1.640000	0.310000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
1.620000	0.300000	PM2.5	Particulate Matter <2.5 microns - Filterable
1.720000	0.320000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Alabama Department of Environmental Management
Previous 2 Years Emissions

711-0013 Mueller, Co. - Albertville

Emissions Source: Stack 03A - Bagfilter w/ Pneumatic Sand Sys

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.002000	0.003000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.001000	0.001000	PM2.5	Particulate Matter <2.5 microns - Filterable
0.004000	0.005000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F

Emissions Source: Stack 080 - Fire Hydrant/Butterfly Valve Painti

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
5.302000	5.111000	100414	Ethyl Benzene (aka Phenylethane)
24.608000	14.767000	108101	Methyl Isobutyl Ketone (Hexone)
22.839000	20.957000	108883	Toluene (aka Methylbenzene)
26.391000	24.136000	1330207	Xylenes (Isomers And Mixtures)
4.721000	2.838000	67561	Methanol
0.013000	0.008000	COC	Cobalt Compounds
0.041000	0.014000	NIC	Nickel Compounds
0.043000	0.015000	SBC	Antimony Compounds
75.061000	112.092000	VOC	Volatile Organic Compounds (not reported in other cate

Emissions Source: Stack 090 - Pouring and Cooling

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
3.200000	2.550000	100425	Styrene (aka Ethenylbenzene)
1.700000	1.360000	BZ	Benzene (includes Benzene From Gasoline)
0.050000	0.040000	NOX	Nitrogen Oxides
1.020000	0.070000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.650000	0.040000	PM2.5	Particulate Matter <2.5 microns - Filterable
2.840000	0.190000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F
0.100000	0.080000	SO2	Sulfur Dioxide

Emissions Source: Stack 092 - Core Production

2022 Emissions	*2023 Emissions*	*Pollutant Code*	*Pollutant Description*
0.070000	0.060000	PM10	Particulate Matter <10 microns (includes PM2.5) - Filte
0.070000	0.050000	PM2.5	Particulate Matter <2.5 microns - Filterable
0.080000	0.070000	PT	Particulate Matter Total (includes PM10 and PM2.5) - F