



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Announced Partial Compliance Evaluation
O'Fallon Casting, L.L.C.
600 Cannonball Lane
O'Fallon, MO 63366
FRS# 110000497588

Inspection Date(s):
July 29, 2024

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- A – Documentation of Records Requested (1 page)
- B – Field Photographs (26 pages)
- C – Quality Procedures (6 pages)

**This Contents page shows all the sections contained in this report
and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements listed in **Table 1**.

Table 1. APPLICABLE PERMIT CONDITIONS, REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 63	Subpart ZZZZZZ, National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

Table 2 lists the inspection team members.

Table 2. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
Luke Rodriguez	EPA Region 7, ECAD, Air Branch	Lead inspector (Clean Air Act Stationary)
Lynelle Ladd	EPA Region 7, ECAD	Lead inspector (Chemical Accident Prevention and Safety)
Tim Evans	EPA Region 7, ECAD	Field team member
Lemma Zewdie	Missouri Department of Natural Resources (MoDNR)	Field team member

FACILITY CONTACT INFORMATION

Table 3 lists the primary facility contact.

Table 3. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
Rob Mondy, Environmental and Safety Coordinator/ Project Manager	636-272-6176 ext. 108	CMondy@ofalloncasting.com

FACILITY OVERVIEW

O’Fallon Casting, L.L.C. began operation in 1968. The facility employs roughly 225 people and operates three shifts a day, seven days a week.

The last onsite compliance monitoring activity at the facility was on April 22, 2024, and consisted of a full compliance evaluation (FCE) inspection conducted by the MoDNR. According to EPA’s Enforcement and Compliance History Online (ECHO) website, there has been no formal enforcement at this facility for at least the past five years.

According to O'Fallon Casting's Title V operating permit issued by MoDNR on January 28, 2020, the facility is subject to the regulations and standards subject to review during this inspection as noted in **Table 1**.

FACILITY OPERATIONS SUMMARY

O'Fallon Casting is an aluminum foundry which uses material containing aluminum foundry hazardous air pollutants (HAPs) as defined in 40 CFR 63.11556. The facility forms ceramic shells from wax patterns with a coated slurry, sand, and various flours. As the volatile components of the slurry evaporate, a ceramic shell is formed. These shells are used to cast molten aluminum alloys into shaped products. Permit OP2020-001 limits the facility to below 100 tons of volatile organic compounds (VOC) emissions annually. The Statement of Basis of the permit indicates that the annual capacity of the melting furnaces is 1,916.25 tons of aluminum. The facility has a maximum potential throughput of less than 6,000 tons per year and is, therefore, a small foundry according to the definition in 40 CFR 63.11556.

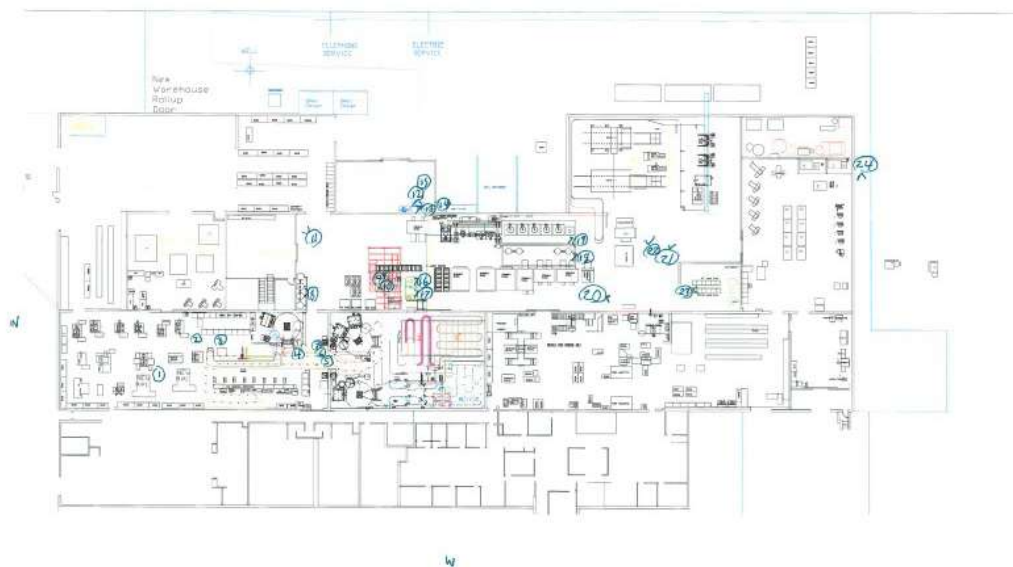


Figure 1. Site Diagram.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on July 29, 2024, at 12:45 p.m. and completed a drive-by surveillance inspection. I did not observe visible emissions. I made entry at the front office at 1:00 p.m. and

introduced myself and members of the inspection team, presented my credentials, and provided my business card to Mr. Mondy. We were given a facility safety briefing by Mr. Mondy. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA, specifically, to determine compliance with the regulations and standards listed in **Table 1**. I explained that after asking for some general business information, I would observe work practices, process units, emission units, and control equipment, and also review associated records demonstrating compliance with the regulation. I explained to Mr. Mondy that the facility would have an opportunity to make a claim of business confidentiality at the end of the inspection and provided him with a Confidential Business Information (CBI) form. Due to Mr. Mondy leaving for vacation on the following day (July 30), Mr. Mondy and I scheduled a video conference call for the following Monday, August 5, 2024, to complete the inspection.

The inspection team was given a facility tour by Mr. Mondy. We were asked by Mr. Mondy to wear steel toed boots and safety glasses, per facility protocol. Following the facility tour, we left the facility at 5:00 p.m.

I conducted a video conference interview with Mr. Mondy on August 5, 2024, where I asked questions about the facility operations, requested records to review as part of the inspection. I sent Mr. Mondy an email (**Appendix A**), detailing the records and a request that they be uploaded by the end of the week on August 9, 2024. Mr. Mondy uploaded the records as requested. Mr. Mondy declined to claim any of the information as CBI.

I conducted a closing conference with Mr. Mondy following our video conference.

Observations and potential findings from the facility tour, records review, and sampling/measurement activities are noted in the **Investigation Observation and Potential Findings** section below.

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions, and field activities were documented in the field records. All photographs are attached as **Appendix B**. The camera time was not corrected prior to the inspection so the time stamps are all one hour behind when the photos were taken. I made the following observations during the inspection. I discussed all observations with facility representatives during the closing conference, unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

In 2011, the facility demonstrated to the satisfaction of the EPA that as it was currently configured, the facility was not subject to 40 CFR Part 63 Subpart ZZZZZZ. The letter from EPA to the facility indicating this determination was dated May 3, 2011. However, the Statement of Basis for the 2020 Intermediate Operating Permit states that "Construction Permit 062011-001 allowed the installation to increase aluminum production capacity meeting the definition of reconstruction under the subpart. As a reconstructed source(,) applicability is based upon annual capacity." Construction Permit 062011-001 was issued on June 7, 2011, which is the date that the facility became subject to 40 CFR Part 63 Subpart ZZZZZZ.

O'Fallon Casting is subject to the requirements located in 40 CFR Part 63 Subpart ZZZZZZ because it is an aluminum foundry which uses material containing aluminum foundry HAP as defined in 40 CFR 63.11556. The facility is a small foundry because it does not have a capacity for greater than 6,000 tons of throughput annually.

I requested the facility's melt throughput for the past three years. Mr. Mondy provided a record showing that the facility melted 850,928 lbs (426 tons) in 2021, 777,168 lbs (389 tons) in 2022, and 723,033 lbs (362 tons) in 2023.

All affected sources at an aluminum foundry are required to comply with 40 CFR 63.11550(a)(1) through (3).

40 CFR 63.11550(a)(1) requires that each melting furnace be covered or enclosed when melting to the extent practicable. Each of the melting furnaces was equipped with a cover or enclosure. There was no melting taking place during the inspection. The facility's Quality Procedure document is attached as **Appendix C**. Mr. Mondy told me that weekly inspections are conducted to verify that the quality procedures are being followed as required by 63.11553(c)(2)(i). In that document, under D. Melting, #7 indicates that the facility personnel should "Cover each melting furnace during the melting process to the extent practicable."

40 CFR 63.11550(a)(2) requires that the facility must only purchase metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns). Mr. Mondy told me that the facility does not purchase any outside scrap but does recycle internal scrap.

40 CFR 63.11550(a)(3) requires that the facility prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in paragraphs (a)(1) and (2). The facility must inform appropriate employees of the management practices that they must follow. This written management

practices plan is the Quality Procedure document referenced above and included as **Appendix C**. The plan includes the required management practice in 40 CFR 63.11550(a)(1).

40 CFR 63.11552 – Monitoring requirements.

40 CFR 63.11552(a) requires that the facility record the information in 40 CFR 63.11553(c)(2) to document compliance with 40 CFR 63.11550(a). The documentation of conformance with the management practices plan is discussed above. The requirements in 40 CFR 63.11552(b), (c) and (d) apply only to large foundries.

40 CFR 63.11553 – Notification, reporting and recordkeeping requirements.

The initial notification required by 40 CFR 63.9(b)(2) was required within 120 days of becoming subject to the regulation, i.e. by October 5, 2011. Mr. Mondy was not in his current role at that time. He said that he believes the notification was submitted but could not locate a copy.

40 CFR 63.11553(e) requires that the facility must submit a compliance report to the permitting authority “if a deviation occurs during a semi-annual reporting period.” Mr. Mondy told me that the facility has had no deviations from the requirements of 40 CFR Part 63 Subpart ZZZZZZ in the last five years and has not submitted any compliance reports.

VOC Emissions

O’Fallon Casting is required to maintain records of VOC emissions to demonstrate compliance with OP2020-001. I reviewed the facility’s records of VOC emissions for the past three years. According to the records provided by the facility, VOC emissions did not exceed 50 tons during any 12-month period during the last three years.

End of report.