Clean Air Act Compliance Inspection Report

United States Environmental Protection Agency
Region 10 – Seattle, WA

Clean Air Act Full Compliance Evaluation Inspection Report

Walla Walla Foundry

Walla Walla, WA

Inspection Date: May 24, 2023

BRENDAN WHYTE Digitally signed by BRENDAN WHYTE
Date: 2023.07.21 13:13:01 -07'00'

Report Author Signature Date

Brendan Whyte
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Section Chief Signature Date

John Keenan
ATES Section Chief, Acting
EPA Region 10

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Attachments

I. Basic Facility and Inspection Information

Facility:	Walla Walla Foundry 405 Woodland Ave, Walla Walla, WA 99362
AFS/FRS Number:	110005402652
SIC:	3366 (Copper Foundries)
NAICS:	331529 (Other Nonferrous Metal Foundries (except Die-Casting)
Permit Number:	None (application submitted 12/28/2020)
Facility Contacts:	Ryan Bagley EHS Manager Walla Walla Foundry ryan@wallawallafoundry.com Deirdre Bealey Human Resources Manager Walla Walla Foundry deidre@wallawallafoundry.com
U.S. EPA Inspectors:	Brendan Whyte Air and Toxics Enforcement Section (ATES) Enforcement and Compliance Assurance Division (ECAD) U.S. EPA Region 10 1200 Sixth Ave. Seattle, WA 98101-3188 (206) 553-1389 whyte.brendan@epa.gov Alyson Skeens ATES/ECAD U.S. EPA Region 10 950 West Bannock Street Boise, Idaho 83702 (208) 378-5748 skeens.alyson@epa.gov
Washington State Department of Ecology Personnel:	John Poffenroth Compliance Enforcement Specialist john.poffenroth@ecy.wa.gov

Jenny Filipy
Environmental Engineer
jenny.filipy@ecy.wa.gov

Date of Inspection: May 24, 2023

Inspection Start/End Times: 10:00 to 15:38

Inspection Notice: This was an unannounced inspection.

This was a multi-media Clean Air Act ("CAA") and Emergency Planning Community Right-to-Know Act ("EPCRA") Section 313 compliance inspection by the Environmental Protection Agency (EPA). Inspector Whyte, EPA Region 10, led both the CAA and EPCRA Section 313 inspection. EPA Region 10 coordinated with the regulatory state air agency, Washington State Department of Ecology (WA ECY), and Inspector Poffenroth and Ms. Filipy participated in the inspection.

This was a full compliance evaluation by the U.S. Environmental Protection Agency Region 10. The purpose was to identify potential compliance concerns with CAA regulations, specifically the National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZZ (5Z; Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources), NESHAP ZZZZZZ (6Z; Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries), and NESHAP HHHHHH (6H; Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources), as well as its CAA permits. This report only covers the CAA inspection.

Disclaimer
This report is a summary of observations and information gathered from the facility at the time of the inspection and from a subsequent records review. The information provided does not constitute a final decision on compliance with CAA regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.

II. Facility/Process Description

The following facility description is based on information provided by a facility representative in the opening conference as well as a written response by the facility to the records requests.

The Walla Walla Foundry was founded in 1980 and moved to its current location between 1983 and 1984, where they have expanded in recent years. According to facility staff, they have been adding new buildings every two to three years in recent decades. The foundry now consists of five main buildings (some of which are comprised of several additions), as well as several satellite locations where supporting functions, such as metal fabrication, crating, and warehousing, are performed. The foundry currently employs over 100 full-time workers.

The foundry primarily produces cast sculpture art out of C 873 bronze and 306L stainless steel, but also does occasional work in other media, including wood, aluminum, silver, and copper. All metal stock is bought in ingot form, and the facility does not melt any scrap purchased from off-site, but does re-melt clean off-cuts and waste from its own casting processes. The process for

manufacturing each art piece is unique, and varies widely based on the type of art and vision of the artists, however, most cast metal sculptures follow a general production process:

- **Creation by the artist and/or 3D modelling by Walla Walla Foundry.** This process varies by artists, media, and style.
- **Wax pattern production.** Patterns may be carved from wax, or 3D printed in polymethylmethacryate. In certain cases, such as when an original artwork is made from wood or another flammable or meltable material, this step may be skipped. Molds are created to include gates/channels, pouring cups, and other features essential to a casting mold. Most art pieces produced by the facility are large enough that each sculpture is made up of multiple cast parts that are molded and poured separately.
- **Shell Creation.** Wax patterns are attached to a rebar frame and dipped in a ceramic shell material before being left to dry and harden. This process may be repeated several times to build up a thick enough shell.
- **Wax removal.** The framed and invested molds are placed in a burnout/flashfire kiln, where the wax is melted out. In the special cases where the mold is not wax, such as wooden sculptures, the mold may be placed in a special kiln that burns the material out.
- **Pre-heating.** Ceramic casts are heated in a kiln in order to prevent swift cooling from causing the molten metal to incompletely fill the mold.
- **Metal melt and cast.** Metal ingots are melted in a furnace and poured into the pre-heated molds.
- **Shell removal and panel prep.** Ceramic shells are broken away from the cast metal piece with a variety of tools, and the gates and channels are cut off using grinders and saws. Initial rough finishing is completed to allow the pieces to fit together.
- **Assembly.** Individual cast pieces are constructed into the larger sculpture, generally by welding.
- **Finishing and coating.** Finishing varies widely by art piece, but often includes welding, grinding, polishing, patinas, paint, and other finishes.
- **Shipping.** Finished products, up to 40 feet in height, are packed into custom shipping containers and transported to customers around the world.

III. Compliance History

Based upon a review of the Detailed Facility Report in EPA's Enforcement and Compliance History Online ("ECHO") database, there did not appear to be any formal or informal CAA enforcement actions at the facility over the past five calendar years.

The facility applied for a Notice of Construction from WA ECY on December 28, 2020 (Attachment B).

IV. Inspection Elements/Order

a. Pre-Inspection Observations

Inspector Skeens and I went directly to the facility. We did not make any observations prior to entry.

b. Entry and Opening Conference

Inspector Skeens and I met Inspector Poffenroth and Ms. Filipy (both WA ECY) at our hotel and drove in convoy to the facility. We arrived onsite at 10:00, and entered the facility's front office where I introduced myself to an employee and explained that I planned to conduct an unannounced CAA and EPCRA Section 313 inspection. We were directed to a large conference table in the middle of the open-plan office where we were joined by the following facility personnel: Ryan Bagley (EHS manager), Deirdre Bealey (HR Manager), Nova Fraley (Administrative Assistant), Grant Griffin (Facilities Manager), Jon Follette (President), and Lisa Anderson (Owner). There were also several other employees at their desks around the edges of the room, who could overhear the conversation, but did not take part.

I explained to the group that Inspector Skeens and I were at the facility to conduct a CAA and EPCRA Section 313 inspection. I further explained that WA ECY was participating in the inspection as well. I opened by explaining the purpose of and reason for of the inspection; that the facility was a source of hazardous air pollutants (HAPs) located in a residential area and adjacent to residential areas of potential environmental justice concern, which did not appear to have been inspected previously by EPA. I also explained that the inspection was unrelated to the Washington L&I and WA ECY Resource Conservation and Recovery Act inspections which had been performed at the facility in the previous nine months, and that I had only learned of those inspections during my recent inspection planning process. I then gave an overview of the inspection process. I explained that generally CAA inspections consisted of a walkthrough and a review of records associated with air pollution emitting processes and the systems or work practices used to control emissions, and briefly explained both the CAA and TRI Records Requests. I noted that Inspector Skeens and I would most likely take photographs and videos of facility processes, and told them that we would avoid including any recognizable art in the photographs and videos. I also provided an overview of the EPCRA Section 313 inspection process. I then explained EPA's confidential business information (CBI) policy and presented the "General Notice Regarding Proprietary/Confidential Business Information (CBI) Submitted to or Collected by EPA in Connection with Inspections and Other Compliance Monitoring" document, as well as the Small Business Resource Information Sheet and A Guide to U.S. EPA's Access and Inspection Authorities. I also showed the facility staff printed copies of NESHAP Subparts 5Z, 6Z, and 6H, and explained that they were the primary federal regulations I would be considering when inspecting the facility. The facility representatives did not indicate that they had a great degree of familiarity with any of the three Subparts, and staff photocopied the documents for future reference.

We then discussed the facility's operations. The facility staff explained to me that exact procedures for each project varied widely, depending on an artist's design and material. Mr. Follette stated that the large majority of casting was ceramic shell, with a small minority of sand-casting using Novaset binders. He also stated that there were no special binders used for cores. Mr. Follette also told me that the primary metal used in casting was C873 bronze, followed by 304L stainless steel, and occasional small pours of aluminum, brass, copper, and silver. Mr. Follette told me that the facility did not purchase

any scrap for melting, and that all metal melted was in the form of high-quality ingots. I was also informed that the #4 furnace used for bronze, and mentioned in the facility's 2020 permit application, had been decommissioned. However, current melt capacity and rates were approximately the same as previous years. Mr. Follette also told me the that the refractory liners of the furnaces were replaced about twice a year.

I then asked about the facility's paint department, and the staff told me that paint was ordered from a manufacturer, and mixed on site to project-specific colors, but that none was manufactured on site. I also asked about training for employees working in the two paint booths and was informed that training was conducted by outside contractors. I was also informed that the facility did not use methylene chloride, but that they did occasionally use a solvent still to recycle paint gun cleaning solvent.

During the opening conference, facility staff also told me some of the history of the facility, which the Foundry moved to around 1983 or 1984. Since that time, there had been significant modifications to the site, with some new building being added or old ones remodeled every 2-3 years. Some of the dates of construction can be observed on the Walla Walla Foundry Site Plan (Attachment C), and the Walla Walla Foundry 2005-2023 Building Improvement Historical Analysis (Attachment D).

The opening conference ended at 11:10, and we began the facility walk-through.

V. Facility Walk-Through

For the walk-through, we were accompanied by Mr. Bagley, Ms. Bealey, and Mr. Griffin.

We first walked through the Waxroom (Building 425), where we observed wax being melted in pots and barrels and poured to create wax molding positives, with attached gates, channels and pouring cups (Photos P5240046 to *48). There was a noticeable, but not unpleasant odor of melted wax, while an HVAC system filtered and circulated the air internally. I was informed that the wax is recycled on-site as long as possible before being shipped off-site for disposal. We then exited the Waxroom building and entered the 3D printing shop (Building 415). Here we observed mold positives being printed out of polymethyl methacrylate (PMMA) in several Voxeljet VX1000 additive 3D printers (Photo P5240050) using an n-vinylformamide binder. These pieces were then finished by blasting with PMMA powder (Photo P5240049), being left to off-gas to atmosphere (Photo P524005i), and being dipped in a light coat of wax to smooth the molds.

Moving to Building 405, we observed the Caging Area, where wax molds with attached gating and pouring cups are rigged in a rebar cage, prior to being dipped in shell (Photo P5240054). The rebar cages are welded together, with the use of welding fume extractor/filters (Photos P5240052 & P5240055) that vent inside the building. Mr. Bagley informed me that used rebar scrap is sold to be recycled off-site. We then observed the room where the cages are dipped in investment plaster shell slurry before casting (Photos P5240056 through *58). The door to the Shell Department had a sign indicating the required use of respirators, which Mr. Bagley informed me was due to worker health concerns from particulate matter (PM). The Shell department is vented to atmosphere.

Our group then moved to the Casting Department (Photo P5240059) where we observed three induction melting furnaces (Photo P5240060): a 500-lb tilt furnace for stainless steel (left), and 1700-lb tilt furnace for bronze (center), and a smaller crucible swing furnace for bronze (right). The stainless-steel furnace had a fume hood routed to a baghouse while both bronze furnaces were uncontrolled, and vented to atmosphere through the roof(Photo P5240064). We also observed containers full of off cuts, metal pieces, slag, and other scrap produced on-site, some of which, which Mr. Griffin and Mr Bagley informed me, was to be re-melted in later pours while some will be sent off-site for recycling. (Photos P5240065 & P5240066). We also observed fresh bronze ingots (Photos P5240067 & P5240068). In the center of the room was a pouring pit which consisted of a fluidized sand bed, which allowed cages to sink into the sand for support while pouring, which reduces leaks and breakage (Photo P5240069). On the north side of the room we saw two hoppers containing used investment shell to be re-ground and re-mixed (Photo P5240070).

In the east side of the Casting Department, we observed three natural gas pre-heating kilns, used to pre-heat molds before pouring (Photos P5240072 & P5240078), as well as a natural gas wax burnout "flashfire" kiln, with afterburner (Photos P5240073). We observed the flashfire oven's pressure readout (Photo P5240076), and setpoint (1,500°F; Photo P5240077, in cooldown mode).

The sand molding and sand reclamation system sat of the far east wall of the room, where we observed it (Photo P5240075). The system was not in use during our visit, but is routed to a baghouse on the outside of the building. I did not observe any significant buildup of casting sand or debris from the system. Near the sand recycling system, we observed more totes and barrels full of metal scrap (Photos P5240081 & P5240082). Mr Calbe Schmidt, lead foundry pourer, informed us that they had stopped re-melting most scrap 6-7 years previously, but still saved clean pieces of aluminum and bronze for re-melt. We then walked outside and observed the baghouse for the casting sand system (Photo P5240083 & P5240084), which operates in a closed loop, and vents back into the building. Returning inside the building we observed the baghouse pressure drop reading (Photo P5240086), however, the baghouse was not in operation at the time.

Our group then exited the building on the south side of the building and observed another burnout kiln that Mr. Griffin and Mr. Bagley informed me was used in special cases when materials other than wax, such as wood, were used as mold positives (Photos P5240087 & P5240088). The system was natural gas heated and fitted with an afterburner system (Photo P5240089), but had no other controls in place. Next to this kiln we found the facility's emergency engine, a natural gas-powered Generac unit (Photo P5240090 & P5240096). I observed the EPA engine certification plate, with a production date of 2009 (Photo P5240097). Nearby this emergency engine, we also observed an older U.S. Airforce surplus engine (Photos P5240085 & P5240094). Inspector Poffenroth informed the facility staff that this engine was very unlike to meet federal air requirements under 40 C.F.R Part 63, Subpart ZZZZ. Mr. Griffin told him that the engine was bought and only used briefly for supplementary power around 2013 when the new stainless steel induction furnace had been installed and had not been used for many years. I observed that the electrical wiring was

fully disconnected (Photo P5240095). Mr Poffenroth reiterated his concerns about the engine, and Mr. Griffin told him the engine could be removed immediately. Nearby the emergency engines, I observed the baghouse for the stainless-steel furnace, and its pressure readout, while the system was off (Photos P5240091, P5240092, & P5240093).

Upon being notified that a bronze pour was about to take place, our group returned to the Casting Department to watch. We observed the end of the bronze heat, and then the pre-heated cage being removed from the kiln (Video P5240099) and lowered by overhead crane into the fluidized sand bed, producing a visible puff of what appeared to be dust or fumes. We then watched the operators pour molten bronze into the mold (Video P5240100).

After watching the bronze pour our group broke for lunch at 13:00, returning at 13:40 to resume the walkthrough.

When our group reconvened, we made our way to the west side of the 415 Building, to the Paint Department. The center of the room was dominated by a large 40'paint booth, which was able to be partitioned in the middle and function as either one large or two smaller 20' paint booths (Photo P5240101.JPG). My ability to photograph this area was limited by the large amount of identifiable art taking up much of the floor space, in various stages of finishing and painting, which I avoided photographing. In the northwest corner was a large partially-tarped-off area, which I was informed was a makeshift sanding booth (Photo P5240103.JPG). When the paint booth was turned on, I observed the pressure drop to be 0.225" of water, below the marked filter replacement threshold of >0.25" of water (Photo P5240104). I entered the west half of the partitioned paint booth, noting a strong solvent smell in the foyer/storage/cleaning room, and observed that the filters were still providing good negative pressure (Photo P5240105). The filters were heavily loaded, but not yet showing signs of paint breakthrough (Photo P5240106).

When I exited the paint booth to the storage/cleaning foyer, Inspector Poffenroth was having a conversation with Mr. Bagley and Mr. Griffin after observing an open solvent container used to catch and store waste solvent after cleaning spray gun parts (Photos P5240109 & P5240110). Inspector Poffenroth informed the two staff that leaving the solvent container open would not generally be considered a good air pollution control practice, and that they should store it with a secure lid that prevented vapors from escaping when it was not in use. I asked Mr. Griffin how the staff knew when the paint booth filters needed to be replaced, and he told me that they would replace them if the intake sensor shows a warning, if a visual inspection showed replacement necessary, or when the pressure drop indicated it was needed.

We then made our way to the finishing, assembly, and packaging area in Building 435. I mostly elected not to take photos in this area, due to the large amount of identifiable art. Walking through the Middle Bay, we saw multiple workstations with welding machines, grinders, and other metal fabrication and finishing tools, as well as several employees assembling metal sculptures, primarily made of bronze. There were a few mobile welding fume extractors that were shared between multiple workstations in this area. Moving on to the Long Bay, we saw more workstations and art in various staging of fabrication and

finishing. The air in this bay was circulated and filtered by an internal push/pull fume collector (Photos P5240111 & P5240112). There were bins and containers where turnings, shavings, and other scrap were collected to be sold for recycling. I asked Mr. Griffin if any plating, electropolishing, or thermal spraying took place on site, and he told me that none was, but that pieces were sometimes sent off-site for plating if needed. I was also told that the floors in the building were regularly vacuumed, and the dust was sold for recycling off-site.

We made our way into the High Bay, where art pieces up to 40' tall could be constructed and packed for shipping. The bay had heavyduty cranes, and special hardpoints on the floor for securing multi-ton metal art pieces. There were several large statues in the area, in various stages of construction and packing. Packing and crating the art produced by the foundry involves a large amount of custom metal fabrication to create transportation and support structures unique to each piece. Some of this fabrication happens on site, and some takes place at another warehouse that Walla Walla Foundry operates nearby, at 842 N 10th Street, Walla Walla, WA 99362.

Backtracking to the south side of Building 435, we passed through the sand blasting booth, and observed its baghouse (Photo P5240113), which was quite large for a process unit of this size. The baghouse had been installed between 2015-2018, and the ground around it and the open door to the blasting booth was clear of blasting grit and debris (Photo P5240115). We observed that the pressure drop gauge for the baghouse was high up on a walkthrough, requiring ladders to access (Photo P5240114), and Inspector Poffenroth commented that, though it was not always a requirement, WA ECY inspectors preferred such gauges to be placed in locations that were more safely accessed.

Making our way to Paint Department in Building 445, our group inspected the second paint booth. This paint booth was similarly designed to the first booth, but approximately half the size, and unable to be partitioned. Entering the paint booth, I observed that the filters were heavily loaded, and that there were indications of breakthrough on the backside of the filter (Photo P5240116 and P5240117). The paint booth operators were not present to turn it on, but I observed the pressure drop gauge while the booth was not running (Photo P5240120). Inspector Poffenroth and I also noticed another open solvent container used for collecting paint gun cleaning solvent (Photo P5240119), and again pointed it out to facility staff. We began walking back towards to office building for the closing conference, and passed by the Patina Department. Mr. Grant and Mr. Bagley pointed out the patina department waste tank location (Photo P5240121), which was periodically pumped out, tested, and disposed of as hazardous waste.

We concluded our walkthrough at 14:55.

VI. Closing Conference

We were escorted to the conference room to discuss the inspection. The following facility staff were present for the closing conference: Ryan Bagley (EHS manager), Deirdre Bealey (HR Manager), Grant Griffin (Facilities Manager), and Jon Follette (President).

I led the closing conference and shared my observations related to the CAA. This report only covers observations related to the CAA. I summarized the parts of the facility observed and my potential compliance concerns. I explained that the inspection, however, would not be complete until I reviewed my notes, applicable regulations and permits, and all records submitted by the facility. I then spent some time going over both my CAA Records Request (Attachment D) and TRI Records Request, and we agreed that the facility would supply the documents by June 16, 2023.

The following were identified as potential compliance concerns during the closing conference:

1. I had observed multiple parts of the facility which had been built or reconstructed in relatively recent years. These included, but were not limited to, the flashfire kiln, at least one melting furnace, the emergency engine, and the blasting and sand-casting baghouses. I noted that the facility had only applied for Notice of Construction (NOC) from WA ECY in 2020. I pointed out that it seemed likely that the facility should have applied for NOCs much earlier than they did, and that I was generally concerned with the apparent lack of communication between the facility and WA ECY regarding this process.
2. I shared my observation that the filters in the Building 445 paint booth were clogged and showing signs of breakthrough, and that both paint booths had open solvent containers. I reiterated that failing to properly close solvent containers without a vapor-tight lid was generally not considered a good air pollution control practice.
3. Inspector Poffenroth and I reiterated our concerns that the old U.S. Airforce surplus generator was unlikely to meet Part 63, Subpart ZZZZ requirements. Facility staff again stated that it could be removed promptly, as it had not been used in a number of years.
4. Finally, I pointed out that the facility did not seem familiar with Subparts 5Z, 6Z, or 6H, which were the most likely CAA Subparts to apply to the facility. I shared by concern that there might be certain requirements in these subparts that applied to the facility, such as compliance notifications and employee training, that the facility was not aware of.

After I shared my concerns, Mr Follette asked about the EPA enforcement process, and Inspector Skeens and I explained a general outline of how EPA enforcement works, in cases where a violation is identified. We also reiterated that we were not making any compliance determinations while on site, nor in the coming inspection report, and that if violations were identified the facility would be contacted at some point after receiving the inspection report.

Inspector Skeens, Inspector Poffenroth, Ms. Filipy, and I departed the facility at approximately 15:38.

VII. Post Inspection Activities

The facility provided a partial response to my CAA Document Request on June 16, 2023, and supplied the outstanding documents on July 10, 2023. The list of requested records is Attachment E to this report. On June 14, 2023, Ms. Bealey asked for a clarification to CAA Document Request Question #2, and I amended it to read “Please provide the dates of construction for any new air pollution emission units (including, but not limited to, paint booths, kilns, furnaces, blasting apparatuses, generators, and burnout ovens) or air pollution control devices (e.g., baghouses, scrubbers, etc.) constructed since the beginning of 2005.”

On July 19, 2023, I received an e-mail from Ms. Bealey stating that the older U.S. Airforce surplus emergency engine had been removed, and photographic confirmation that it had been removed from its concrete pad.

During my document review, I noted that the outside kiln used for burning wood and non-wax materials out of molds does not appear to be listed in the facility's 2020 NOC application.

Following below is a summary of the records that I reviewed, with any response for each record (see Table 1).

Table 1: Records Review

Permit Condition	Requirement	Records Requested
N/A	Part 63, Subpart ZZZZZ and Part 63, Subpart ZZZZZZ applicability	Records of the amount of metal melted on-site annually from 2018 through 2022, by alloy.
Response: The facility provided records of metal melted and cast at the facility in 2018 through May 2023. In the years of 2018 through 2022 the facility melted between 31,230 lb and 70,630 lb of 304L stainless steel, annually. According to the facility's 2020 NOC application, air releases from this stainless steel alloy contain approximately 17% chromium and 12% nickel, both of which are Hazardous Air Pollutants (HAPs). Based on this information, Walla Walla Foundry appears to be a new or existing Small Foundry subject to Part 63, Subpart ZZZZZ, according to § 63.10880. Additionally, Walla Walla Foundry was an existing source at the time of the rule's promulgation On January 2, 2008. It is possible that the facility has become a new source in the intervening years since promulgation of the rule, however, I do not currently have enough information to determine whether it is currently a new or existing source. In the years of 2018 through 2022 the facility melted less than 230,000 lb (115 tons) of non-ferrous foundry metals, annually. Part 63, Subpart ZZZZZZ applies to HAP emitting non-ferrous foundries with a melt capacity or actual production of "at least 600 tons per year (tpy) of aluminum, copper, and other nonferrous metals, including all associated alloys." Based on the records provided, Walla Walla Foundry does not have actual production amounts of non-ferrous castings that would make it subject to Subpart ZZZZZZ.		
N/A	Part 63, Subpart ZZZZZZ applicability	Calculations of annual melt capacity for both ferrous and nonferrous alloys.
Response: According to Part 63, Subpart ZZZZZZ § 63.11544, new aluminum, copper, or other non-ferrous foundries must determine applicability of the subpart based on production capacity. It is possible that the facility has become a new source in the intervening years since promulgation of the rule, however, I do not currently have enough information to determine whether it is currently a new or existing source.		

The facility provided annual melt capacity for non-ferrous metals based on 44 working weeks of five working days. If this is corrected to 52 working weeks of 7 days, then Walla Walla Foundry has a non-ferrous production capacity of 637,000 lb (318.5 ton) per year. This does not account for the claim from the facility that ferrous and nonferrous melts cannot be operated simultaneously, due to their single power supply, and that, from 2018 through 2022, 22.24% of the foundry's production was ferrous metal. However, it appears that, even using this conservative calculation, Walla Walla Foundry's production falls below the 600 ton per year requirement for Subpart ZZZZZZ applicability, even if the facility is a new source.

N/A	Part 63, Subpart ZZZZZ § 63.10885 Scrap metal requirements	Records of scrap purchase, by type and source, including any lead or mercury certifications, for the years of 2021 and 2022.

Response: According to the facility's Document Request Response "Walla Walla Foundry does not purchase any type or source of scrap metal."

N/A	Part 63, Subpart ZZZZZ § 63.10886 Casting sand binder formulation requirements	The formulations and SDSs for any casting sand binders used on site from 2018 through 2022.

Response: The facility provided SDSs for all casting sand binders used from 2018 through 2022. None of the SDSs supplied listed methanol as a component.

N/A	Part 63, Subpart HHHHHH applicability (40 CFR 63.11170)	Records of any methylene chloride purchases or usage from 2018 through 2022.

Response: The Facility provided purchase records and SDSs for all products containing methylene chloride purchased from 2018 to 2022. These records included yearly purchases between 1 and 15 gallons of "KLEAN-STRIP LACQUER THINNER 6782," which contains methylene chloride. On July 17, 2023, I e-mailed Deirdre Bealey and inquired what this product was used for. Ms. Bealey's response was "That product is a cleaner, used to remove oil off of metal surfaces, as part of a paint prep process."

The applicability criteria of Part 63, Subpart HHHHHH § 63.11170(a)(1) covers area sources of HAPs that "Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates." The definition of Paint Stripping in § 63.11180 reads "Paint stripping means the removal of dried coatings from wood, metal, plastic, and other substrates. A single affected source may have multiple paint stripping operations." Based on Walla Walla Foundry's stated use-case of methylene chloride, and the definitions above, it does not appear that methylene chloride use makes the facility subject to Subpart HHHHHH (however, see next section).

N/A	Part 63, Subpart HHHHHH applicability (40 CFR 63.11170)	Copies of SDSs for any paint or coating used on site in 2021 or 2022.

Response: The facility provided SDSs for all paint products used on site in 2021 and 2022. The NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations (Subpart HHHHHH) applies to miscellaneous surface coating operations, located at area sources, that involve the spray application of coatings that contain compounds of chromium, lead, manganese, nickel, or cadmium. This facility operates a paint booth and performs surface coating operations. I reviewed SDSs in order to determine if the facility applied coatings which contained compounds of chromium, lead, manganese, nickel, or cadmium. Two products contained target HAPs as defined by Part 63, Subpart HHHHHH § 63.11180:

- METAL PRETREATMENT - Matthews Paint Company - 5-10% $ZnCrO_4$ (zinc chromate)
- COMPLETE 2K Primer Surfacer (Part A) Yellow - Martin Senour Paints - 13.77% $NiO{\cdot}Sb_2O_3{\cdot}20TiO_2$ (titanium yellow)

Based on the facility's use of the two products listed above, Walla Walla Foundry appears to be subject to requirements under Subpart HHHHHH.

N/A	Training requirements of Part 63, Subpart HHHHHH § 63.11173	Records of any employee training pertaining to paint booth use for employees operating the paint booths in 2021 or 2022.

Response: The facility provided Records for paint booth training in 2020 and 2023, but did not provide documentation for training conducted in 2021 or 2022. An e-mail record indicated that seven employees were trained in paint booth use on 3/3/2020 ("CAA-9a Paint Booth Training Completed 3.2020"). The record does not document the type of training, nor who instructed it. A second record indicates that a further seven employees were trained on the paint booth in January of 2023 ("CAA-9c Paint JHA training completion records"), and an additional document describing the training was attached ("CAA-9b Paint Booth Operations Procedures and Training handout"). The descriptive document covered operation of the paint booth itself, PPE, and how/when to create a work order, but did not include any mention of spray gun equipment, spraying technique, or how to physically change a filter.

Part 63, Subpart HHHHHH § 63.11173(e)&(f) require operators applying spray applications of coatings to be trained and certified annually on the use of the paint booth and spray guns. The training must include

> "*(2) Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (f)(2)(i) through (2)(iv) of this section.*
>
> > *(i) Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.*

(ii) Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.
(iii) Routine spray booth and filter maintenance, including filter selection and installation.
(iv) Environmental compliance with the requirements of this subpart."

§ 63.11178 requires records of these certifications to be kept for a period of five years.

N/A	Notification requirements of Part 63, Subpart HHHHHH and Part 63, Subpart ZZZZZ	Copies of any reports or notifications ever sent to the EPA or Washington Department of Ecology.

Response: The facility provided large selection of records covering what appears to be all correspondence between Walla Walla Foundry and US EPA or WA ECY. These records included correspondence and reports relating to RCRA, EPCRA 311, air emission inventories, and other hazardous waste activities. I did not find any Initial Notifications or Notifications of Compliance status sent to either agency pursuant to Subpart HHHHHH § 63.11175 or Subpart ZZZZZ § 63.10890. I also failed to find any notifications relevant to these subparts in EPA files.

Subpart HHHHHH § 63.11175 and Subpart ZZZZZ § 63.10890 both require subject facilities to submit Initial Notifications, and annual or semiannual Notifications of Compliance to the EPA.

N/A	Washington Administrative Code 173-400-110: WA ECY Notice of Construction Permitting Requirements	The dates of construction for any new air pollution emission units (including, but not limited to, paint booths, kilns, furnaces, blasting apparatuses, generators, and burnout ovens) or air pollution control devices (e.g. baghouses, scrubbers, etc.) constructed since the beginning of 2005.

Response: The facility supplied a list of building and foundry improvements constructed at the Walla Walla Foundry from 2005 to 2023 (Attachment E). WA ECY generally requires existing businesses to apply for a Notice of Construction (NOC) permit prior to beginning any work that would replace or change air pollution control equipment, or increase its air pollution emissions in accordance with WAC 173-400-110. Walla Walla Foundry applied for an NOC on December 28, 2020 (Attachment B).

In my review of construction and modifications carried out at Walla Walla Foundry from 2005 to 2023, I found the following projects which may have triggered the need for a WA ECY NOC prior to commencement:

- 2006 Kiln: Edward Kiln (405)
- 2007 Induction Furnace purchase (405)
- 2008 Dust Collector: Sandblast Room (435)
- 2008 A Sandblast addition made to the High Bay (435).
- 2009 Generator: Shell (405)
- 2010 Kiln: Shell Burnout (405)
- 2010 Baghouse: Shell Room (405)
- 2010 The Kiln shed was added to the South side of the Foundry building (405).
- 2011 Kiln: Dewax Kiln (405)
- 2012 Dust Collector: Sandblast Room (435)
- 2013 Furnace: SS Tilt (405)
- 2013 Kiln: Investment (405)
- 2013 Sandcasting building addition (405).
- 2014 Kiln: Shell pre-heat (405)
- 2015 Sandblast Murphey Baghouse Installation (435)
- 2018 Paint Booth (445)
- 2019 Paint Booth (415)
- 2020 Kiln: Flashfire Dewax Kiln (405)