

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B565564047

FACILITY: WARNER BROTHERS FOUNDRY		SRN / ID: B5655
LOCATION: 29955 GROESBECK, ROSEVILLE		DISTRICT: Warren
CITY: ROSEVILLE		COUNTY: MACOMB
CONTACT: Derek Warner , Vice President		ACTIVITY DATE: 07/12/2022
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: FY 2022 Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, July 12, 2022, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of Warner Brothers Foundry Company (B5655), located at 29955 Groesbeck Highway, Roseville, Michigan. The purpose of this inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and 40 CFR 63, Subpart ZZZZZZ Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries.

I arrived at Warner Brothers Foundry Company at 10:00 AM and met with Derek Warner. Lon Warner was also present. Upon arrival, Derek and I discussed the records and operations. I was then taken on a tour of the facility.

Warner Brothers Foundry Company is a foundry that manufactures aluminum, brass, bronze, and copper castings for aerospace, military, and automotive markets. Derek mentioned 99% of the time, the facility processes aluminum, and copper makes up the rest. The facility has been at its current location since 1955. The facility makes molds for various parts and then the molten metal is poured in the molds to make the parts. The company has 2 sand mixers; one was installed in 1978 and the other was installed in 1980. Both lines use the same chemicals. Molds are made by mixing sand with phenolic urethane binders (2020 and prior-Uniset 625 Parts 1, 2, and 3; current-Rapidur Parts 1, 2, and 3). The company changed binders in 2020 due to supply issues. Derek mentioned in 2020 they operated at a lower capacity due to Covid (Normally throughput is approximately 20,000 lbs, in 2020 throughput was approximately 13,000 lbs). A letter of violation was sent on July 11, 2008 for a rule 201 violation for the mold making process. In response to the violation, the facility provided calculations showing the process was exempt via rule 290. During inspection, Derek provided me calculations for 2020 and 2021 showing the processes remain exempt. R290 (2)(a)(i) states: Any emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials that are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled

or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively.

The 2020 total noncarcinogenic VOC uncontrolled emissions were 384 lbs/month (4,613 lbs annual) and 2021 was 680/month (5,780 lbs annual). The company is meeting the requirement of R290 (2)(a)(i).

R290 (2)(B) states: For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 micrograms per cubic meter, the total uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively.

The total 2020 carcinogenic toxic air contaminant uncontrolled emissions were 5.8 lbs/month (69 lbs total) and 2021 was 14.45 lbs/month (173.5 lbs total). The company is meeting the requirement of R290 (2)(B).

After the parts are made, the molds are ground and shot blasted to reuse the sand. The exhaust from the shot blasting is vented to the in-plant environment. There is also a shakeout equipment that is controlled by a baghouse located on the roof and vented through a stack. According to Derek, the baghouse is the requirement of a water permit and is inspected per the requirements. Bags are inspected and emptied monthly. The shot blast and shake out are exempt per Rule 285(I)(Vi)(B) and (C). The shake out is only run at night. There are several furnaces (5). 2 were being used during inspection. Emissions from pouring of the metal into the molds in vented to the general in-plant environment. This equipment is original to the facility and is considered grandfathered equipment from the requirement to obtain a permit. There is no emergency generator onsite. The facility has approximately 8 employees. According to Derek, the facility operates 1 8-hour shift per day.

Compliance

Warner Brothers Foundry provided hard copies of the 2020 and 2021 calculations. The documents can be found in the facility plant file.

40 CFR Part 63 Subpart TTTTTT

63.11462(a) states: You are subject to this subpart if you own or operate a secondary nonferrous metals processing facility (as defined in § 63.11472) that is an area source of hazardous air pollutant (HAP) emissions.

Per 63.11472, A secondary nonferrous metals processing facility means a brass and bronze ingot making, secondary magnesium processing, or secondary zinc processing plant that uses furnace melting operations to melt post-consumer nonferrous metal scrap to make products including bars, ingots, blocks, or metal powders. According to Derek and information provided by the facility, the facility is not involved in the brass or bronze ingot making and therefore is not subject to 40 CFR 63 Subpart TTTTTT.

40 CFR Part 63 Subpart ZZZZZZ

63.11544 states: You are subject to this subpart if you own or operate an aluminum foundry, copper foundry, or other nonferrous foundry as defined in § 63.11556, “What definitions apply to this subpart?” that is an area source of hazardous air pollutant (HAP) emissions as defined in § 63.2 and meets the criteria specified in paragraphs (a)(1) through (4) of this section. Once you are subject to this subpart, you must remain subject to this subpart even if you subsequently do not meet the criteria in paragraphs (a) (1) through (4) of this section.

(1) Your aluminum foundry uses material containing aluminum foundry HAP, as defined in § 63.11556, “What definitions apply to this subpart?”; or

(2) Your copper foundry uses material containing copper foundry HAP, as defined in § 63.11556, “What definitions apply to this subpart?”; or

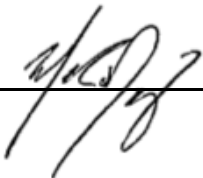
(3) Your other nonferrous foundry uses material containing other nonferrous foundry HAP, as defined in § 63.11556, “What definitions apply to this subpart?”.

(4) Your aluminum foundry, copper foundry, or other nonferrous foundry has an annual metal melt production (for existing affected sources) or an annual metal melt capacity (for new affected sources) of at least 600 tons per year (tpy) of aluminum, copper, and other nonferrous metals, including all associated alloys. You must determine the annual metal melt production and capacity for the time period as described in paragraphs (a)(4)(i) through (iv) of this section. The quantity of ferrous metals melted in iron or steel melting operations and the quantity of nonferrous metal melted in non-foundry melting operations are not included in determining the annual metal melt production for existing affected sources or the annual metal melt capacity for new affected sources.

According to Derek, in 2021, the annual melt capacity was ~31 tons (26 tons Aluminum and 5 tons copper) which is below the 600-ton threshold to be subject to 40 CFR Part 63 Subpart ZZZZZZ.

Based on the information gathered during the inspection, Warner Brothers Foundry appears to be in compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended.

NAME

DATE August 15, 2022 SUPERVISOR