

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B165040318

FACILITY: Mueller Brass Co		SRN / ID: B1650
LOCATION: 302 ASHFIELD, BELDING		DISTRICT: Grand Rapids
CITY: BELDING		COUNTY: IONIA
CONTACT: Caleb Wieland ,		ACTIVITY DATE: 06/19/2017
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

The facility is a brass mill that manufactures rod for the use in machining, thread rolling, and forging operations. The facility is currently operating one furnace (No.7) for the production of brass billets. The facility has installed an upcast machine for the production of copper coil. The facility is not currently conducting any brass chip drying.

REGULATORY OVERVIEW

The facility holds one air use permit (PTI No. 16-11) which covers all of the operations at the facility. PTI No. 16-11 was issued October 20, 2011 to address violations of the emission limits associated with the West Chip Dryer which was previously permitted under PTI No. 505-93. The permit also addressed violations of the NAAQS for lead. The facility entered into consent order No. 9-2011, with an effective date of December 1, 2011. The consent order was issued to address the violations of PTI No. 505-93.

COMPLIANCE EVALUATION

Prior to entering the facility a survey of the perimeter was made. No abnormal odors or opacity was noted.

At the facility EG met with Caleb Wieland and Chris Brownell.

Since the last inspection, the facility has removed the east chip dryer from the facility. The west chip dryer was operated for a short period of time in August 2016 to obtain operating data for application at the company's Port Huron facility. The facility currently has no intention of restarting the west chip dryer. If the facility was to restart the dryer they would need to conduct stack testing within 60 days. The limited amount of chips received at the facility is trucked to the Port Huron facility.

With the installation the copper upcaster, the No.9 brass line was removed. The facility is currently only melting brass on the No. 7 brass line. The No. 8 brass line is available as a backup, but needs work before it is operational.

Below is an evaluation of the processes limitations and restrictions contained in PTI No. 16-11.

FGCHIPDRYERS

Flex group includes the east chip dryer (EUECHIPDRYER) and the west chip dryer (EUWCHIPDRYER). The east chip dryer was removed from the plant approximately 1-1.5 years ago. The west chip dryer has been shut down, except for a short run in August of 2016 to generate engineering data for the Port Huron facility. EG requested and received the operational and maintenance data associated with the operation of the dryer in August 2016. (Attached)

Emission Limits

The flex group establishes emission limits for particulate, lead, sulfuric acid and hydrogen chloride.

Compliance with the emission limits for the west chip dryer was established via stack testing conducted on October 1, 2010. Continued compliance is demonstrated via proper operation of the control equipment.

Process/Operational

Requires the facility to develop and implement a PM/MAP. The facility has developed and submitted a PM/MAP.

Requires that the afterburner on the chip dryer maintain a minimum temperature of 1500 degrees F when the dryer is operating. Review of the electronic temperature records showed the minimum temperature of 1500 degrees F was maintained during operation of the dryer from August 17th through August 24th 2016. (Records attached)

Requires that the associated cyclone, precooler/wet cooler/wet scrubber and demister be maintained and operated, including maintaining the water flow, nozzle water pressure and nozzle air pressure in the ranges specified by the manufacture or as determined during testing. Review of the facility records showed the monitored parameters to be within the specified ranges contained in the PM Plan. (Records attached)

Testing

FGCHIPDRYERS requires testing of the each chip dryer within 90 days of restart and every 5 years thereafter. The east chip dryer has been removed.

Requires retesting of the chip dryers every 5 years. The chip dryer is shut down indefinitely. If the unit is restarted it needs to be testing within 60 days.

Monitoring/Recordkeeping

Requires the monitoring and recording of the thermal oxidizer temperature continuously. The facility provided the thermal oxidizer records for the operating period in August 2016.

FGCHIPDRYERS requires the facility to monitor and records both the nozzle water pressure and water flow rate for the scrubber system. The facility provided records documenting compliance with these requirements. (Records attached)

Stack/Vent Restrictions

West chip dryer stack maximum diameter of 24 inches and a minimum height of 122 feet. Visual observation of the stack showed that it appeared to meet the dimensions.

FGMELTFURN

Flex group includes the three melting furnaces EUMELTFURN7, EUMELTFURN8, EUMELTFURN9 and associated controls. The facility has removed EUMELTFURN9 and is currently not operating EUMELTFURN8. Additionally, the facility did not perform any brass melting from October 2016 until April 2017.

Emission Limits

The flex group establishes emission limits for particulate, lead, copper and zinc.

Compliance with the emission limits were established via stack testing conducted on November 4-5, 2010. Continued compliance is demonstrated via proper operation of the control equipment.

Process/Operational/Monitoring/Recordkeeping

Requires the facility to develop and implement PM/MAP. The facility has developed and submitted a PM/MAP that they are following.

Requires that the baghouses be installed and maintained. Since EUMELTFURN9 has been removed, the baghouse associated with the furnace was also removed. (West Baghouse) The permit requires the baghouse to be operated within the pressure drop range specified by the manufacture or as determined during testing. The facility is required to record the pressure drop readings on a continuous basis. The facility has established a pressure drop range of 2.5 to 7.5 inches. Observation of the pressure drop readings showed the east baghouse to have the following readings during the inspection: west cell 6.5 inches, east cell 6.5 inches. Review of facility maintained pressure drop records showed all values to be within the 2.5 to 7.5 inch range.

Stack/Vent Restrictions

Requires an east baghouse stack maximum diameter of 50 inches and minimum height 35.7 feet. Visual observation of the stack showed that it appeared to meet the dimensions.

Note: Observation of the baghouse showed no opacity and the area around the baghouse to be well kept.

Copper Upcast Machine

On June 10, 2016, the facility provided the AQD with a Rule 290 exemption determination regarding a copper upcast machine that was installed at the facility. The copper upcast machine is an integrated melting, holding and casting unit located where the No. 9 brass line previously existed. The electric resistance melting unit has a 1,320 pound per hour melt rate, while the crucible holder has a capacity of 5,060 pounds. The melting unit is charged with pure copper cathode sheets that are dried in an existing heat treat oven prior to charging. Graphite pellets are added to molten copper within the furnace to burn off any oxygen. A hood above the furnace captures any emissions. The hood ducts to a small internal baghouse. Observation of the furnace showed no emission. The facility currently operates the upcaster 24 hours a day, producing copper coil.

The facility provided a demonstration of exemption under Rule 290 based on 0.5 pounds of PM (copper) being emitted per ton of melt. Throughput was assumed to be 1,320 pound per hour. Assuming the emission rate of 0.5 pound of PM (copper) per ton of melt is correct; the emission unit is below the 500 pound per month emission limit for copper. (Production records attached)

Ambient Air Monitoring: Two ambient air monitors continue to be operated near the facility. One is located on Merrick Street and another is located off Reed Street. The Merrick Street monitor has shown lead levels in compliance with the 3 month NAAQS since November 2010, while the Reed Street monitor has demonstrated compliance since October 2011.

On July 29, 2013, AQD submitted to USEPA "Michigan's 2008 Lead NAAQS Nonattainment State Implementation Plan for Ionia County (partial), which details actions taken to address lead nonattainment associated with Extruded Metals. USEPA approved the State's request to redesignate the area to attainment. The notification was published in the Federal Register on May 31, 2017. The redesignation will become effective on July 31, 2017, via direct final rule, unless EPA receives adverse comments by June 30, 2017.

Consent Order No. 9-2011

Compliance with the active consent order is based primary on complying with PTI No. 16-11.

Conclusion

Based on the information and observations made during this inspection, the facility appears to be in compliance with applicable air quality rules and regulations.

NAME 

DATE 6/30/2017 SUPERVISOR 