

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

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2-4-14

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Intranet

FACILITY: MILAN CAST METAL CORP		SRN / ID: A6722
LOCATION: 13905 SANFORD RD, MILAN		DISTRICT: Jackson
CITY: MILAN		COUNTY: WASHTENAW
CONTACT: Michelle Coburn, Safety & Environmental		ACTIVITY DATE: 01/14/2014
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Complete scheduled compliance inspection. Minor Source.		
RESOLVED COMPLAINTS:		

Shelly Coburn shelly@milanCastMetal.com

On January 14, 2014, the Michigan Department of Environmental Quality, Air Quality Division conducted a complete scheduled compliance inspection, unannounced, of the Milan Cast Metal Products facility located at the above address in Milan, Washtenaw County. The purpose of the inspection was to determine the facility's compliance status with applicable federal and state air pollution control regulations, specifically Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) and the administrative rules. Milan Cast Metal (hereinafter MCM) currently has three air use Permits to Install (PTI) Nos. 447-80, 879-78, and 76-78 and numerous exempt process equipment. MCM specializes in aluminum sand castings, and their primary customer is the automotive industry. They produce mainly seat castings but can do other specialty jobs.

Upon my arrival I introduced myself, provided identification, and stated the purpose of my visit. I met with Michelle (Shelly) Coburn, Health & Safety & Environmental. This is a small family owned business and she is the granddaughter /daughter of the owners. AQD last inspected the facility in August 2009. There have been some changes since that time. Shelly stated production has reduced since 2009 and they still operate one shift, 7 to 3:30 Mon - Fri., and sometimes 3-4 hours on Saturdays. They melt only aluminum ingots in order to meet aluminum specifications of their customers. MCM produces automobile seating prototypes, front and back seat cushions. They make usually only 2 or 3 of something which then goes to auto company and they use to set up their own production.

Per Shelly, the Wheelabrator grinder/blast cleaning unit (part of PTI 879-78) is still on site and still not operated because the parts they make are too large to fit into it. This unit and other grinders/shot blasters are connected to a Wheelabrator dust collector (tube type baghouse). This is located in an add-on building, Shelly called it a "Quonset". It is a long and narrow arch or crescent shaped metal building. None of the associated processes were operating during the inspection.

One change per Shelley is that they no longer operate the table top wood pattern painting operation I observed in 2009. It qualified for exemption as small and exhausted in plant and was non-production.

I observed the Sand Reclaimer with dust collector was not operating. It is used for the mold Cores on the casting mold lines (PTI 447-80). No Cores were being poured during the inspection. I observed the sand silos, located outside behind the main building. An operator working in the area explained the dust collector flow between the Sand shaker/reclaimer and the transfer of material to the outside silo and the exhaust which exits horizontally out the back wall. Per Shelly the silos are loaded pneumatically and I observed they have bag collectors on the top. Sand is transferred by enclosed piping to the Core mixer. After the aluminum part is complete, the sand mold/core is run through the Reclaimer to break it down and remove large non-sand pieces and MCM reuses the sand as many times as possible.

MCM has three casting Core lines (or three core molds) which can be made at the same time. Sand is mixed with a Binder and Catalyst (1112B Alphathane NB Pt2; 10002A Alphathane NB Pt1) which sit in large totes on a raised platform, located next to the Core mix/pour and are automatically fed along with the sand into the mixer.

I asked Shelly about maintenance of the baghouses and replacement of filters. The operator accompanying us said he replaces the filters as needed. Filters are a cylindrical shaped unit about 2 feet long, contained inside a metal cage. He showed me used ones and new ones in boxes. He said they do all the maintenance usually @ every 6 months. My prior inspection noted the manufactured bag is called "Bader bags". The last replacement was in September 2013 and was written on a post near the

unit. I requested MCM record the filter changes and maintenance on the baghouse, on paper and/or electronically starting now. This is necessary in order to demonstrate the baghouse continues to be installed and operating properly according to Act 451, Part 55, Rule 910. This is a General Condition of the PTI No. 447-80. Documentation benefits MCM as their compliance demonstration and also is a good way of monitoring the life and functionality of the baghouse collector and ductwork to avoid malfunctions or exceedances.

I also informed them that must not allow collected particulate material to be re-introduced to the outside (ambient) air. It is very important that the used filters be handled, stored and disposed of properly in accordance with all other regulations. If MCM wants to continue to clean and reuse the filters they must make sure they are capturing all the material as they clean them, and then disposing of it properly.

Both of MCM's PTIs require they meet:

- 1) the Rule 331 particulate limit .01 lbs/1000lbs of exhaust gases;
- 2) the Rule 301 standard 20% opacity and
- 3) the Sand Reclaimer has a odor condition. (Apparently in their long ago history they had odor complaints associated with this operation.)

At this time, MCM appears to be in compliance with these, which depend on the proper operation of the baghouses primarily.

Another change from 2009 is that they have removed most of the pattern wood working shop machines that were located in the building behind the above main plant. The multiple wood working machines had all ducted to one dust collector located outside in a small three sided storage structure outside the front door. The exhaust ductwork is still in place for the most part along with the collector. MCM has moved to a more high tech type of aluminum patterns. MCM purchases clean aluminum block to cut. I observed three higher tech, digital, programable, robotic type cutting machines are now in this building. The largest one was operating and cutting could be seen through windows on the enclosed unit. There are no emissions associated with the equipment.

During the inspection, I observed the Aluminum Melt Furnaces: one electric and (3) natural gas. None were operational. The 2 of 3 natural gas furnaces are located under one hood with exhaust outside. The other is exhausted in plant, but Shelly said it has not been used in a very long time. The furnaces are considered to be Rule 201 exempt pursuant to Rule 282(a)(iv) induction melt with capacity of 1000 lbs or less. Inspections prior to my 2009 one stated furnace capacities are 800 lbs. Following today's inspection I discovered a third PTI was still current (not voided) in our Permit database. PTI 76-78 covers a 938 lb/hr Pilar induction furnace. This appears to be for the electric induction furnace. The permit requires Rule 301 visible emission 20% standard; Rule 331 particulate 0.10 lbs/1000lbs and the ability to request stack testing. A copy will be scanned and emailed to Shelly.

In 2009 Shelly had said they melt approximately 17000 lbs every 8-10 weeks. Taking worse case 17000 every 8wks in a year (52 wks) = 110,500 lbs /yr divided by 2000 lbs/ton = 55.25 tons /yr. Today, Shelly said production has gone way down since then. Estimated they may melt 3500 lbs/month = 42,000 lbs for the year, divided by 2000 lbs/ton = 21 tons/yr.

During the prior inspection EPA had recently proposed a Minor Source (Area) MACT (National Emission Standard for Hazardous Air Pollutants) Subpart RRR standard for Aluminum Melt Operations. I noted in my report at that time that I informed Shelly that the AQD does not have delegated authority for the Area Source standards. This is still the case. My initial review of the standard indicated then that Milan Cast Metal is an applicable source but was not subject due to its size. Their Furnaces would be considered existing and the regulation refers to using 2010 melt capacity as a baseline and this is set at 600 tpy.

Following that inspection I sent Shelly a copy of the Area Source MACT, the Part 2 exemption booklet and copies of MCM's PTIs. It is unlikely that they are subject to the MACT Subpart RRR or more recently (2009) the Area Source MACT Subpart ZZZZZZ for Aluminum, Copper, and Other Nonferrous Foundries. However, the Company is advised to periodically review the standards and be able to demonstrate why they are not subject. MCM is an existing but minor (area) source of HAP. MCM doesn't melt scrap aluminum (only melts ingots), and doesn't meet the affected source definitions under RRR. Instead it appears EPA exempted/separated their source category and later promulgated an Area Source

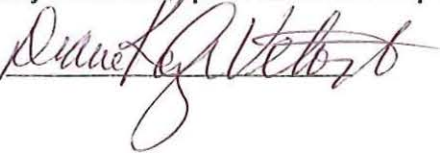
MACT ((6)Z) to cover their similar source. Pursuant to (6)Z MCM does not currently melt 600 tons/yr, and it doesn't appear they ever did. The MACT specifies 2010 as a baseline year. Because of this it appears they will also not be subject to the Area MACT. Again MCM is advised to track their production and capacities and be able to demonstrate this.

Shelly told me MCM does not have an emergency generator on site (Area RICE MACT Subpart ZZZZ).

COMPLIANCE SUMMARY

It appears Milan Cast Metal (MCM) is in substantial compliance with their PTIs and applicable state and federal regulations. They were advised to increase their level of monitoring/recordkeeping of the Sand Reclaimer baghouse (filter collector) and the baghouse on top of the Sand silos. They were advised to properly contain/dispose of collected particulate matter from the baghouses and baghouse filters.

NAME



DATE



SUPERVISOR

