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

B884424142

FACILITY: Flexible Metals Inc. (formerly Metaldyne)		SRN / ID: B8844
LOCATION: 7495 E M-36, HAMBURG		DISTRICT: Lansing
CITY: HAMBURG		COUNTY: LIVINGSTON
CONTACT: Robert Raymond , Quality Assurance Manager		ACTIVITY DATE: 01/22/2014
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 1/22/2014, the Air Quality Division (AQD) of the Department of Environmental Quality (DEQ) conducted an unannounced, scheduled inspection of the Flexible Metal Inc. Hamburg plant, which was formerly Metaldyne Tubular's Hamburg plant.

Environmental Contacts:

Robert Raymond, Quality Assurance Manager; (810) 231-1300; rraymond@flexiblemetal.com

Judie Knappman, Material Specialist; (810) 231-1300; jknappman@flexiblemetal.com

Facility description:

The primary product of this facility is exhaust manifolds. They produce these for cars, trucks, heavy construction equipment, and some military vehicles, as an OEM (Original Equipment Manufacturer).

Regulatory overview:

The facility has a number of older air use permits for manufacturing processes which can now utilize exemptions from the requirement of Rule 201 to have a permit to install (PTI). These exemptions did not exist, at the time the PTIs were originally issued. Plus, some permitted proceeses were removed from the site, years ago.

The federal regulation 40 CFR Part 63, Subpart XXXXXX, National Emissions Standards for Hazardous Air Pollutants (NESHAP): Nine Metal Fabrication and Finishing Source categories at Area Sources applies to factories whose primary works falls under nine industrial source categories. Two days after the inspection, I e-mailed information to the company, so that they can determine if they are XXXXXX-subject.

Emission units:

Original emission unit description (from air use permit)	Current emission unit description	Permit to Install No.	Relevant exemption rule	Can permit be voided?	Operating status at time of inspection
Electric batch type draw furnace	Removed from site	170-84	NA	Yes	Removed from site
Tubular component manufacturing equipment with a bagfilter control, exhausting to outside air	Welding stations and metal tube forming processes, with electrostatic precipitators and subsequent cloth filters, exhausting to in-plant environment	537-84	285(i), and 285(l)(i)	Yes	Compliance
12 welding booths, cut-off saw, and heat treat table, with uncontrolled exhaust to outside air through shared stack	Manual welding stations, with shared electrostatic precipitator, exhausting to the outside air; saw with cyclone and Torit filter, exhausting to in-plant environment	111-85	285(i); 285(l)(vi)(A) and/or (B)	Yes	Compliance, saw not in use at time of inspection
Nordale Fluid Eliminator, Model 1000	Removed from site	25-92	NA	Yes	Removed from site
NA	Laser cutter in enclosed booth, with electrostatic precipitator and cloth filter	NA	285(l)(vi)(A) and (B)	NA	Compliance
NA	Water-based parts cleaner	NA	285(l)(iii), and/or 285(r)(iv)	NA	Compliance

Recent history:

Hyspan Precision products acquired Metaldyne Tubular in 2010, and this plant became the Flexible Metals Inc. Hamburg plant. There was some downsizing at that time, but the owners have invested in the plant, and are expecting to add jobs, in the future.

This facility last underwent a scheduled inspection by the AQD on 4/2/2008. The AQD has never received a complaint about this site, based on a review of the plant file, and the MCDS and MACES databases.

Location:

This factory is located on the east side of a segment of M-36 which goes north and south. There are commercial businesses on the opposite side of the street, and a business about 250 feet directly north of the plant. About 900 feet north of the plant is a large subdivision. There are also a couple houses about 400 feet south of the plant. To the east is a small industrial park, with the closest businesses being 1,000 feet from Flexible Metals, Inc.

Arrival:

At 12:56 PM, I arrived at the plant, and parked on the north side of the building. I could not see any visible emissions coming from the facility. I noticed a distinct and definite odor (level 2 on the 0 to 5 odor scale used by the AQD) which made me think of hot metal, when I was 75 feet downwind of the plant. It was not, however, strong enough to be considered distinct, definite, and objectionable (level 3 on the 0 to 5 odor scale). Weather conditions were lightly snowing and 8 degrees F, with winds 0-5 miles per hour out of the southwest.

Note: at no time did I detect a hot metal odor, either inside or outside of the plant, during the rest of this site visit.

In the factory office, I met Mr. Joe Baxter, Plant Manager, Mr. Robert Raymond, Quality Assurance Manager, and Ms. Judie Knappman, Material Specialist.

Inspection:

Electric batch type draw furnace, PTI No. 170-84:

The batch type draw furnace has been gone from the plant for many years, I was informed, so the PTI can now be voided. The facility no longer does any heat treating onsite,.

Tubular component manufacturing equipment, originally permitted with bagfilter control and exhaust to outside air, PTI No. 537-84:

The manufacturing processes under this permit include welding stations, and equipment for bending and forming tubes. They do both MIG (Metal Inert Gas) welding and TIG (Tungsten Inert Gas) welding. The welding processes can now be considered exempt under Rule 285(i), which exempts brazing, soldering, welding, and plasma coating equipment. The metal bending and/or forming equipment can now be considered exempt under Rule 285(l)(i). PTI No. 537-84 can now be voided.

In 1984, the equipment exhausted to the outside air through a shared fabric filter collector. Now, however, the equipment exhausts to not one but a number of newer, more efficient industrial dust collectors, and they exhaust into the general, in-plant environment. There are two types of control devices here. One kind are Smog Hog electrostatic precipitators from the 1980s, with cloth filters which were added around 2002, to enhance their efficiency. The other kind are newer electrostatic precipitators built by the Robovent Solutions Group, which have cloth filters after the precipitators.

I observed Smog Hogs with the identifying numerals 6513, 6514, and 6515. Number 6513 controls their newest welding booth, while number 6514 controls two welding booths. There were no visible emissions from the Smog Hogs as they exhausted to the inside atmosphere. The interior of the plant

was bright and clean, without any sign of a fog of oil mist, or smoke. I could not detect any odors inside the plant.

12 welding booths, cut-off saw, and heat treat table, originally permitted with uncontrolled exhaust through shared stack; PTI No. 111-85:

There are manual welding stations covered by this air use permit which are now controlled, and exhaust to the outside air, through a single roof-mounted electrostatic precipitator. This unit does not have a cloth filtration system, and is the one control device at the plant which exhausts outdoors. Rule 285(i) exempts welding equipment.

Additionally, the saw is still in use, though now it exhausts to a mechanical pre-cleaner, which is a cyclone, in this case, and then to a Torit dust cleaner with cloth filters. After filtration, the air exhausts inside the plant. The saw was not running, at this particular moment. It is used as needed. This meets the criteria for the Rule 285(l)(vi)(A) and (B) exemptions. PTI No. 111-85 can now be voided.

The heat treat table has been gone for many years. The plant no longer does any heat treating onsite.

Nordale Fluid Eliminator, Model 1000, PTI No. 25-92:

The Fluid eliminator has been gone from the site for many years. PTI No. 25-92 can now be voided.

They now have a laser cutting process, in an enclosed booth, which is controlled with an electrostatic preciptator and cloth filter that exhaust indoors. This can utilize the Rule 285(l)(vi)(B) exemption.

They have a water-based parts cleaner, and no solvent-based ones. Rule 285(l)(iii) exempts the following equipment, and any exhaust system or collector exclusively serving the equipment: "Equipment for surface preparation of metals by aqueous solutions, except for acid solutions."

Additionally, Rule 285(r)(iv) exempts equipment used for cleaning metal, if the process emissions are only released into the general in-plant environment.

Recordkeeping:

Ms. Knappman explained that their pollution control devices, as well as plant comfort heating and cooling systems, are serviced every several weeks, by Robovent. She showed me a number of the reports which Robovent provides to Flexible Metals, upon completion of servicing and any associated parts replacement or repairs. We went from July 2013, through the latest report, 1/6/2014. The reports were approximately 5 to 6 weeks apart, and detailed all work performed for each individual dust collector. Ms. Knappman indicated that maintenance staff at Flexible Metals keep a supply of clean fabric filters onsite, so they can replace any dirty or damaged filters, on short notice.

Ms. Knappman indicated that the plant voluntarily recycles all paper, cardboard, and wood pallets onsite. In doing this, they reduced use of a large onsite waste compactor from twice per week, to once every three months.

Facility staff were very knowledgeable and professional. I left the plant at 2:22 PM. Downwind of the plant, I could not detect any odors, nor could I see any visible emissions.

Note: on 1/24, I e-mailed to Ms. Knappman links to the DEQ webpage on 40 CFR Part 63, Subpart XXXXXX, so that Flexible Metals Inc. can determine if they are subject to the NESHAP for Nine Metal Fabrication and Finishing Source categories at Area Sources.

Conclusion:

The facility appeared to be in compliance with the Michigan Air Pollution Control Rules. The permitted equipment at the plant appears to satisfy the criteria for the Rule 285(i) and Rule 285(l)(vi)(A) and (B) exemptions. Therefore, on 1/28, I e-mailed Sue Thelen of the AQD Permit Section, to request that PTI Nos. 170-84, 537-84, 111-85, and 25-92 be voided.

NAME [signature] DATE 1/28/2014 SUPERVISOR [signature]

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