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**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

B666426295

FACILITY: Kelsey Hayes Co. dba TRW Automotive	SRN / ID: B6664
LOCATION: 9475 Center Road, FENTON	DISTRICT: Lansing
CITY: FENTON	COUNTY: LIVINGSTON
CONTACT: Gary Novak , H.S.E. Manager	ACTIVITY DATE: 08/07/2014
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance
SUBJECT: Self-initiated inspection of facility formerly owned by Cutler Hammer, and Eaton Corporation.	SOURCE CLASS: MINOR
RESOLVED COMPLAINTS:	

On 8/7/2014, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted a self-initiated inspection of Kelsey Hayes doing business as (dba) TRW Automotive, at 9475 Center Road, Fenton, in Livingston County.

Environmental contact:

Gary R. Novak, CHMM, H.S.E. Manager; 810-750-2426; gary.novak@trw.com

Facility description:

This facility manufactures anti-lock brake system (ABS) control systems, by machining aluminum castings, and then cleaning and assembling them.

Regulatory overview:

This facility is classified as a minor source, because it does not have the Potential to Emit (PTE) to be a major source of criteria pollutants (carbon monoxide, nitrogen oxides, sulfur dioxides, volatile organic compounds, lead, particulate matter smaller than 10 microns, particulate matter smaller than 2.5 microns, nor of Hazardous Air Pollutants (HAPs). For major sources, a Renewable Operating Permit would be required.

This facility consists of exempt emission units for metal machining and parts washing. Air use permits had been issued in the past, but nearly all of them have been voided, in recent years. This is because equipment was either removed, or it was determined to be exempt from the requirement to obtain a permit to install (PTI). Three air use permits were accidentally overlooked, however, but they were voided following today's inspection.

Emission units:

Emission unit description	Control equipment	Exemption rule	Compliance status
8 aluminum machining processes: cells 3-6 in west half of machining, and cells 7-10 in east half of machining, with water-based cooling solutions	Torit oil mist collectors, with 3 filters each, indoor exhaust	Rules 285(l)(vi)(B), and/or 290	Compliance
2 dewatering process, one for each half of machining	Torit Dryflo collectors	Rule 285(m)	
Thermal deburring furnaces, natural gas-fired; with Lewis parts washer		Rules 282(a)(i) and/or 290 for furnaces; Rule 290 for parts washer	Compliance
Rock parts washers, using an alkaline cleaning solution		Rules 285(l)(iii), and/or 290	Compliance
Coils department: winders 1-4, including soldering line for copper winding		Rule 285(i)	Compliance
Coils department: detergent wash for small parts, using alkaline cleaning solution, and rust inhibitor		Rules 285(l)(iii) and 290	Compliance
Coils department: sonic cleaner, with phosphoric acid solution		Rule 281(e)	Compliance
Ink marking line		Rules 287(c) and/or 290	Not operating, at time of inspection

History:

This plant was owned by Cutler Hammer in 1980, and received a Permit to Operate, No. 34-80, for a soldering process, vapor degreaser, and blueprint machine, under the State Registration Number (SRN) B6664. The plant was later owned by Eaton Corporation. All equipment was removed from the site by the time Kelsey Hayes acquired it. A number of Permits to Install (PTIs) were issued to Kelsey Hayes, under the SRN N2494, although the permits and/or SRN erroneously identified the location as Genesee County, rather than Livingston County. Most of these permits were later voided, because the equipment was either removed, or exempted from the requirement to obtain an air use permit. The Cutler Hammer PTO and two Kelsey Hayes PTIs, Nos. 148-93 and 149-93 were accidentally overlooked, and were voided following the inspection.

Fee status:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is in a very rural area, with the only immediate neighbors being a golf course to the south, and a gas station next door. The nearest residences appear to be about 1,000 feet to the east, 1,500 feet to the northeast and southeast, and 1,000 feet to the west.

Arrival:

I could not detect any odors downwind of the plant. Weather conditions were 60 degrees F, sunny, and humid, with winds out of the north at 5-10 miles per hour. I drove through residential areas west of the plant, but detected no odors. I arrived at the plant at 9:30 AM. I met with Mr. Gary Novak, CHMM, who is the H.S.E. Manager for this facility, as well as TRW's Fowlerville plant, SRN N5129. I brought a copy of the DEQ brochure "Environmental Inspections: Rights and Responsibilities," but Mr. Novak had received a copy of this already, during my 2013 inspection of the Fowlerville plant.

Inspection:

Mr. Novak explained that this plant mostly has the same sorts of metal machining processes and small part assembly processes as the TRW Fowlerville plant. However, it has a lead based soldering process and a couple machining cells for winding copper wire. This facility is larger than the Fowlerville plant, at about 188,000 square feet, compared with the Fowlerville plant's 142,000 square feet. They have not had any issues with musty odors being detectable offsite.

This was an older facility than TRW's Fowlerville plant, but the emission units were all operating properly.

8 aluminum machining process with Torit oil mist collectors, indoor exhaust; Rules 285(I)(vi)(B) and/or 290:

Aluminum machining cells 7-10 are in the east half of the machining section of the plant, while cells 3-6 are in the west half. Cells 1 and 2 were removed, years ago. The machining cells each exhaust to a Torit oil mist collector. These have 3 filters each, and exhaust to the in-plant atmosphere. I could not see any visible emissions from them, nor was there any haze or mist visible in the plant's interior. I could detect a coolant scent inside the plant, but could not detect musty odors, which would have been a possible indicator of increased bacteria in the cooling fluids.

2 hydromation rooms, with Torit Dryfo collectors; Rule 285(m):

Each half of the machining section has a hydromation room, where coolant is recirculated. Each recirculation process is equipped with its own Torit Dryflo mist collector. Fine metal particulates are dragged out onto filter paper, while heavier metal chips settle out at the bottom of a tank. They go up a conveyor, are spun dry in a centrifuge, and are deposited into a semi trailer. They are taken offsite, for recycling. Rule 285(m) exempts process water treatment equipment and wastewater treatment equipment which are not designed primarily to treat volatile organic compounds.

Mr. Novak e-mailed me a copy of the Safety Data Sheets (SDS) for their metalworking fluids which they uses here, Ecocool and Hysol, please see attached.

There is a 3,400 gallon wastewater storage tank inside the plant, which contains water, oils, detergent, and metal working fluids. I could not detect any odors from the tank.

Thermal deburring furnaces, natural gas-fired; Rules 282(a)(I) and/or 290 for furnaces; Rule 290 for parts washer:

The deburring furnaces were not treating any parts, at the time of the inspection. The deburring furnaces use intense heat to turn any metal burrs to an ash. Natural gas and oxygen are ignited at a predetermined pressure in a sealed chamber. From the plant roof, it could be seen that there were no visible emissions from the deburring furnaces, only heat waves. There were no signs of particulate deposition on the roof. Weather conditions were sunny, humid, and 75 degrees F, with winds 0-5 miles per hour out of the north.

After deburring, the parts go through a Lewis parts washer. Rule 290 is one applicable exemption, since they keep VOC records the plant for each month. From atop the roof, there were no visible emissions from the exhaust stack for the Lewis parts washer.

Rock parts washers, using an alkaline cleaning solution; Rules 285(I)(iii), and/or 290:

The Rock parts washers use a dilute solution of detergent and water. Rule 285(I)(iii) exempts equipment for surface preparation of metals by use of aqueous solutions (except for acid solutions), and any exhaust system or collector exclusively serving the equipment. Rule 290 could also apply, as the company keeps monthly VOC records.

Coils department: winders 1-4, including lead soldering; Rule 285(I):

There are 4 winding machines which wind copper wire onto small plastic parts. A lead solder is applied to the copper windings. Rule 285(I) exempts soldering equipment from the requirement to obtain an air use permit. They collect drips of molten lead from their soldering process in small containers, so that the lead can be recycled. They recycle about 7-8,000 lbs annually.

They also recycle copper and plastic. Even assembled copper windings are recycled, if there are quality control issues, although the separation of copper, lead, and plastic from assembled windings, is done offsite.

Coils department: detergent wash; Rule 285(I)(iii) and Rule 290:

The detergent wash system uses an alkaline cleaner. Since this is not an acidic solution, it appears to satisfy the exemption criteria of Rule 285(iii). It also uses a rust inhibitor. The facility keeps records of VOC emissions, pursuant to Rule 290. From the roof, it could be seen that there were no visible emissions other than steam from the exhaust stack for this washer. Mr. Novak e-mailed a copy of the SDS for the rust inhibitor, please see attached.

Coils department: sonic cleaner, using phosphoric acid solution; Rule 281(e):

The sonic cleaner uses Oakite 33, a phosphoric acid-based solution (see attached SDS for Oakite 33, provided to AQD during a 2013 inspection of TRW's Fowlerville plant).

Ink marking line; Rule 287(c) and/or Rule 290:

They have an ink marking line, which applies a small dot of ink to parts. This uses about 50 gallons of ink per month. They keep records, and indicated that throughout 2013, they were below 200 gallons per month.

Chemical storage building:

This is used for storing some chemicals, and for storing other chemicals prior to proper disposal. Outside the building, in fire proof metal cabinets, there were stored drums of isopropyl alcohol. There was also stored a single drum of hazardous waste. This had been stored considerably less than the 180 days allowed for temporary storage of hazardous waste, as a small quantity generator, Mr. Novak pointed out. he provided me with a copy of a plant map showing oil storage locations, and raw material storage, attached for reference.

Facility recordkeeping:

Rule 290 requires recordkeeping. For 2013, their annual emissions were as follows:

NOx: 1,973.76 lbs, or 0.99 tons

CO: 271.39 lbs, or 0.14 tons

VOC: 1,603.15 lbs, or 0.8 tons

PM-10: 19.74, or 0.01 tons

For the month of April 2013, their VOC emissions were estimated at 232 lbs, the highest amount they have ever reached, based on purchase records. This is below the maximum 500 lbs of controlled or 1,000 lbs of uncontrolled emissions allowed by Rule 290.

Mr. Novak provided a copy of a 2013 emissions summary, attached for reference.

Conclusions:

The various industrial processes within the plant appeared to be operating properly, and I could not see any signs of visible emissions from either inside or outside of the plant. I did not find any instances of noncompliance. Mr. Novak was very knowledgeable and professional, and was well aware of the exemptions which apply to this facility, including the recordkeeping requirements for Rule 290. I left the facility around 12 noon.

The Cutler Hammer/Eaton Corporation PTO No. 34-80 for a soldering system, vapor degreaser, and blueprint machine, was voided on 8/11/2014 by Ms. Sue Thelen of the AQD Permit Section. No void letter was sent out for this, because the equipment had been removed prior to acquisition of the plant by Kelsey Hayes, and therefore it had no connection to them. The Kelsey Hayes PTIs Nos. 148-93 and 149-93 were voided on 8/12/2014 by Ms. Sue Thelen, because the relevant emission units had been removed. A permit void letter was sent to Mr. Novak.

NAME *[Signature]*

DATE 9/16/2014

SUPERVISOR *[Signature]*

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