

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

N203731106

FACILITY: DENSO AIR SYSTEMS MI, INC.		SRN / ID: N2037
LOCATION: 300 FRITZ KEIPER BLVD, BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Brandon Love , Safety/Environmental Specialist		ACTIVITY DATE: 08/25/2015
STAFF: Rex Lane	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Self Initiated Inspection		
RESOLVED COMPLAINTS:		

On August 25, 2015, Air Quality Division (AQD) staff, Rex Lane and Monica Brothers (hereafter "staff") arrived at Denso Air Systems (hereafter "facility") located at 300 Fritz Keiper Boulevard, Battle Creek, Michigan at 8:45 am to conduct an unannounced air quality inspection. Staff provided the receptionist with their business card and stated the purpose of their visit. Mr. Brandon Love, Safety/Environmental Specialist came out shortly thereafter and took staff to a conference room for further discussion. Staff stated that they would like to conduct an unannounced air quality inspection and provided Mr. Love with their credentials, business card and a copy of the MDEQ's Environmental Inspection brochure. The last air quality inspection of the facility occurred on August 12, 2011 and the facility was considered to be in compliance at that time. The facility is considered to be a synthetic minor source for volatile organic compounds (VOC).

Denso Air Systems manufactures vehicle under floor pipe and hose assemblies connecting heater and A/C systems from the engine compartment to rear heater cores and evaporator units in SUV's, vans and trucks for various domestic and foreign automakers. Their products are made from purchased aluminum alloy tubing ranging in diameter from 0.3 – 0.75 inches and accessories on assemblies range from insulation to switches, connectors, clips, clamps, service valves, sight glass and caps.

Staff asked Mr. Love several questions regarding process equipment at the facility. Per Mr. Love, the facility does not have any boilers and uses natural gas fired space heaters for building heat which are exempt from air use permitting requirements under Rule 282(b)(i). The facility has four cold cleaners units that all use Crystal Clean 106 mineral spirits (MSDS attached) that contains no chlorinated solvents. The cold cleaners are exempt from permitting under Rule 281(h). Staff provided Mr. Love with some cold cleaner stickers. The facility currently does not have an emergency generator. Staff requested and was also provided with a plant layout map and MSDS data for the evaporative oil and machining lubricants used in the facility.

Mr. Love then gave staff a tour of the facility and we were joined on the inspection by Mr. Monish Vasudeva, HR Assistant Manager. Required PPE is safety glasses and steel toed boots. Information provided below is based on observations and discussions during the inspection and records requested and provided during and following the inspection:

The facility has multiple tube machining, forming, bending and cutting operations that vent internally and are exempt from permitting under Rule 285(l)(vi)(B). The facility has about a dozen natural gas fired brazing machines used for production and job shop repairs that are exempt from permitting under Rule 285(i). All part assemblies undergo leak tests using either helium or water bath using air which is exempt from permitting under Rule 283(d). The facility has several ink stamping areas to print product codes on parts. The current ink printing operations combined are exempt from permitting under Rule 287(c) based on purchasing records demonstrating average ink usage less than five gallons per year.

The facility has an aqueous wash system to remove evaporative oils used to fabricate heater core assemblies which is exempt from permitting per Rule 281(e). Isopropyl alcohol (IPA) is used as a lubricant to slide foam insulation on to tubing and evaporative oil and IPA usage is tracked on a monthly and twelve month rolling average.

The facility has an air use permit PTI No. 298-07A for three natural gas fired batch thermal degreasing ovens. Special condition (SC) I.1 limits VOC emissions to 17.2 tons/year on a 12-month rolling average from the combined oven stacks. Based on records provided following the inspection, the current 12-month rolling average for VOC is about 30% of the allowable limit based on the annual mass balance test performed on 8/30/14 and associated stack emission factor. The next evaporative oil annual mass balance test is scheduled for 8/27/15 per Mr. Love. All three ovens were operating during the inspection and no visible emissions were observed from the oven exhaust stacks during the pre-inspection observation, therefore, it is presumed that the mist collector is operating in a satisfactory manner under SC IV.1.

The facility has air use permit PTI No. 207-10 which limits facility wide VOC emissions to less than 90 tons/year on a 12-month rolling average under SC I.1. The highest VOC emission rate noted over the past twelve months of records was 17.12 tons or about 19% of the allowable limit. SC II.1 limits facility wide usage of evaporative oil to not more than 22,500 gallons per 12-month rolling time period. The highest oil usage rate noted based on facility records over the preceding twelve month period was about 20% of the allowable limit. SC II.2 limits facility wide IPA usage to not more than 45,750 pounds per 12-month rolling time period. The highest IPA usage rate noted based on facility records over the preceding twelve month period was about 19% of the allowable limit.

Staff left the facility at noon and thanked Mr. Love for his time.

At the time of the inspection and based on a review of required records provided during and following the inspection, the facility appears to be in compliance with state air quality rules and the requirements of PTI Nos. 298-07A and 207-10. -RIL

NAME RIL

DATE 9/14/15

SUPERVISOR MM 9/15/15