DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: On-site Inspection

N119273948				
FACILITY: DENSO Manufacturing Michigan, Inc.		SRN / ID: N1192		
LOCATION: One Denso Road, BATTL	E CREEK	DISTRICT: Kalamazoo		
CITY: BATTLE CREEK COUNTY: CALHOUN				
CONTACT: Jody Smith, Advanced Environmental Engineer - Section 1		ACTIVITY DATE: 08/29/2024		
STAFF: Jared Edgerton COMPLIANCE STATUS: Compliance SOURCE CLASS: MAJOR				
SUBJECT: Unannounced Air Quality Inspection				
RESOLVED COMPLAINTS:				

On August 29, 2024, Air Quality Division (AQD) staff Jared Edgerton conducted an inspection of Denso Manufacturing Michigan, Inc. (DENSO) located at One Denso Road, Battle Creek Michigan. The purpose of the inspection was to determine the facility's compliance with Renewable Operating Permit (ROP) MI-ROP-N1192-2023 and all applicable state and federal air regulations. The information below summarizes plant operations and the inspection tour.

DENSO is an OEM supplier for condensers, evaporators, radiators, and heater core components that are used in HVAC systems for a variety of automotive manufacturers. Some of the operation processes at the facility include stamping, rolling, fluxing, brazing, powder coating, plastic injection molding, and manually component assembly. DENSO first started operations in Battle Creek at this location in 1986, and employs approximately 2,500 personnel. The facility operates the building on two shifts, five days a week. When demand is high from customers, lines will run three shifts, and on the weekends, to meet demands.

AQD staff arrived at DENSO at 9:40 AM with temperatures of 69 degrees F, and spotty drizzle. Ms. Jody Smith, Advanced Environmental Engineer, escorted staff around the facility and answered all operational questions. The facility has made operational changes since the last inspection, and Ms. Smith confirmed that EU-RDR2 and associated thermal oxidizer R140 have been removed from the facility. EU-HTR1 has been shut down but still remains in the building. The company has no plans to resume production on this line. The facility is a Major Source for volatile organic compounds (VOCs) and a Synthetic Minor Source for Hazardous Air Pollutants (HAPs). In addition, it is a Minor Source for Nitrogen Oxides (NOx), Sulfur Oxides (SOx), Carbon Monoxide (CO), and Lead (Pb) under MI-ROP-N1192-2023.

The primary operational areas at the facility are the condenser, evaporator, radiator, and heater core processes. The associated Emission Units are listed below:

Condenser: EU-CONDMF3, EU-CONDMF41, and EU-CONDGIC2.

Evaporator: EU-EVAP1, EU-EVAP2, EU-EVAP4, EU-EVAP5, EU-EVAPCS2, and EU-EVAPSP4.

Radiator: EU-RDR1, and EU-RDR3.

Heater Core: EU-HTR1, and EU-HTR2

The facility has a Flexible Group named FGSURFACECOAT which is comprised of four identical surface treatment machines. They are labeled EU-C832, EU-C833, EU-C834, and EU-C933. The process consists of dip treatment and coating of cores in a

series of baths that include acid pretreatment, conversion coating, hydrophilic coating, and water rinses. It concludes with the items drying in an oven.

Within the ROP are conditions that have identical or similar requirements for the four main manufacturing areas. Summarized below are comments and observations from the inspection tour.

The permittee is required to perform annual evaporative oil testing for the four main manufacturing areas. Testing is performed every year in the November – December time period. The most recent report was submitted January 2024. The facility reports the evaporator lines had evaporative loss of 15.7%, radiator loss of 15.0%, heater core loss of 29.8%, and condenser loss of 23.7%.

The permittee is also required to calibrate each temperature monitoring device on the thermal oxidizers at least once per calendar year. During the inspection tour, AQD staff observed each calibration sticker located on or near each control device, and the facility supplied the calibration final report in their records request submittal. All thermocouplers were last calibrated between 9/9/23 to 9/23/23. Ms. Smith stated that calibrations are usually performed in the month of September.

The oven degreasers have an automatic alarm system that is triggered if the combustion temperature drops below the permitted limit (either 1292 or 1400 degrees F) for more than 59 minutes. The facility is required to keep a log of each alarm occurrence, including the date, time, and duration. Alarms are logged by hand on sheets next to each degreaser. AQD staff observed one alarm sheet for EU-EVAP1, and it appeared to meet all the requirements. Ms. Smith stated that these sheets are scanned after each year is completed.

While operating the oven degreasers, the associated thermal oxidizer must be operating properly. Proper operation means that the oxidizer maintains a minimum operation temperature (1292 or 1400 degrees F, depending on the oxidizer), minimum retention time (0.3 or 0.5 seconds) and a VOC destruction efficiency (94% or 95% depending on the oxidizer), or a VOC outlet concentration limit is complied with. During the inspection walkthrough, temperature recordings were taken by AQD staff. All operating thermal oxidizers had combustion temperatures above their respective operating limits.

Source-Wide Condition IX.1 requires the company to maintain video surveillance and regular guard patrols to prevent unauthorized individuals from loitering in the employee parking lots. While AQD staff was at the facility, numerous security cameras could be seen throughout the parking lots. The facility also has security check points at the employee lot, and the guest entrance has a secretary to greet visitors. The facility is also fenced to prevent unauthorized access. AQD staff believes that these items show the facility's compliance with this condition.

The permittee is also responsible for maintaining an inventory of each material used and its associated chemical composition. Acceptable forms could be material safety data sheets (MSDS), or formulation data. The facility has an electronic MSDS/SDS program for all the chemicals used at DENSO. The information is used to accurately report emissions. AQD staff requested this information for four different chemicals commonly used at the facility, and Ms. Smith provided data for CedarDraw S-104HJ. Nocolok Flux Drystatic, Paint F Flux, and Surfalcoat 2400. Each of the chemicals were provided on a MSDS sheet, and it appears the facility is compliant with the requirements.

Denso is also required to submit a Malfunction Abatement Plan (MAP) for the thermal oxidizers and powdered flux dust collection systems. The facility currently has a revised MAP from March 2020 on file with the district. This appears to be compliant.

Inspection Tour:

After being greeted by Ms. Smith and asking introduction guestions, AQD staff was led to the manufacturing floor. DENSO's operating floor is designed for pedestrians to walk in aisles and has road-like areas for forklifts and tow hauling vehicles. Personal protective equipment required by DENSO are safety glasses and steel-toed shoes. The manufacturing area of the facility houses the four main manufacturing areas, which are grouped together in a grid format. From South to North, the areas start with Condensers, then Evaporators, Radiators, and finally Heater Cores. In the very middle of the facility there is an area designated as Molding. This is where multiple plastic injection machines produce primarily polypropylene, polyethylene and nylon components for the HVAC assembly. This assembly area is also located in the middle of the facility next to the molding stations. The inspection tour started outside with the first fire pump house (EU-FIRE PUMP #1), which houses a caterpillar diesel engine installed in 1985. It was equipped with a non-resettable hour meter, and the facility maintains operational records. After inspecting the pump house, the tour continued back into the building to the condenser manufacturing stations. All three of the condenser lines were inspected by AQD staff. Associated thermal oxidizers were checked for proper temperature and up-to-date thermocouple calibration stickers. This inspection method was used on each manufacturing area. From the condensers, the tour continued through the various areas. The next stop was the evaporator area. Six evaporator units were inspected by staff and deemed to be in good condition, with calibrations and temperatures satisfactory. Next, the multiple plastic injection machines from the molding area were inspected. Staff could see plastic cases for the HVAC units being produced. Mold cleaner and mold release agents were actively being used on the lines along with various solid fillers that help the company meet the characteristics requested by the customer. Based on production records that were submitted by Ms. Smith, VOC emissions for molding activities for 2023 were about 1,411.67 pounds. This is well below the significance levels in Rule 119, which means that the facility is well below the Rule 278 exclusionary criteria. Therefore, the molding area of the facility is exempt from permitting under Rule 286(2)(b).

After the molding area, the tour moved to the radiator manufacturing area. This consists of metal stamping presses and tube mills. Metal fins are formed by machine assembly. The end product is called a core which is then degreased and sent into a brazing oven. This process is essentially the same for each of the manufacturing areas, but the scale of the parts made is different. Ms. Smith led staff to the location where the EU-RDR2 line used to operate. She stated that this unit was removed from the facility two years ago in December, and now the space is a staging area for the other two radiator lines. AQD staff recommends that this Emission Unit s be removed from the ROP the next time DENSO modifies the permit. The other two lines, and operations in the radiator area were observed. It appears that the lines are working as intended and appeared compliant.

Next to the radiators are the heat core assembly lines. At the time of the inspection, DENSO had two different lines. EU-HTR1 and EU-HTR2 sit parallel to each other, similar to the other areas. The cores are metal stamped, and presses form the cores into the desired characteristic. Ms. Smith told AQD staff that EU-HTR1 has had no production for a year. This is due partly to lack of customer demand and the age of the equipment. EU-HTR2 was operating during the inspection, and underwent emissions testing the following week. This test was to determine if the thermal oxidizer was meeting the destruction efficiency requirement of 95%. AQD staff attended this test on September 5, 2024, and it appeared that the test showed compliance. Three one hour tests were conducted, with destruction efficiencies of 99.5, 99.5, and 99.6 percent. During the inspection, it appeared that the heater core assembly was functioning properly.

The tour also included some miscellaneous equipment. The facility has two 20.92 MMbtu/hr rated natural gas only fired boilers. They are located in the powerhouse and supply steam to the evaporator surface treatment process and building service heat. The boilers are exempt from 40 CFR Part 60, Subpart Dc requirements based on the 1985 installation date. The facility also has four other natural gas fired hot water boilers. They are less than 10 MMBTu/hr each. These boilers are also exempt from 40 CFR Part 60, Subpart Dc because they were installed in 1987, and this federal rule only applies to boilers installed after June 9, 1989. The boilers in the powerhouse and also the hot water boilers are considered exempt from permitting under Rule 282(2) (b)(i). During the inspection, each of the boilers were inspected and appeared to be compliant with the exemption requirements.

The surface coating operations area was the next stop on the tour. This area consists of four identical lines, C-832, C-833, C-834, C-933. While walking through the area, each of the lines were actively moving parts from one station to the next. AQD staff did not see any non-compliant activities here. From a catwalk that ca overlooks the whole facility, the tour continued onto the roof to inspect the stacks. AQD staff observed many stacks from the various lines, and no stack was seen with a cap.

While on the roof, information was taken from emergency generator, EU-FAG #7. This unit is only accessible by going onto the roof. EU-FAG#7 is contained in FG-NSPS-JJJJ and not FG-MACT-ZZZZ≤500HP. Other units similar to #7 that were observed while on the inspection tour were EU-FAG#1, EU-FAG#2, EU-FAG#3, EU-FAG#5, EU-FAG#6, EU-FIREPUMP#1, and EU-FIREPUMP#2. DENSO provided a manufacturer's emission certificate that shows the generators' compliance with 40 CFR Part 60, Subpart JJJJ. Emission limitations for natural gas fired emergency generators were based on the installation date in 2011. On the tour, AQD staff inspected every unit that was nearby the tour route. All units appeared to be properly marked with identification and equipped with a non-resettable hour meter. Ms. Smith stated that an outside vendor conducts most of the required maintenance activities for the diesel and natural gas fired engines. However, Denso is responsible for changing the oil and oil filters along with some other required annual maintenance. The facility maintains the operational records for this Flexible Group, and these were reviewed by AQD staff. The results of this records review are summarized below.

Staff then asked to see the equipment associated with the last few Flexible Groups contained in the facility's ROP. The facility has a Flexible Group for cold cleaners. FG -COLDCLEANERS is for one cold cleaner, located in the Heater Core area. During the inspection, the cold cleaner could not be found. Ms. Smith is confident that the

cleaner was removed from the facility. It appears that no cold cleaners are currently installed at the facility.

FG-Rule 290 is for Emission Units that release only VOC. Some of these processes are located in the equipment testing and final assembly area. Materials seen on the facility tour were inks, alcohols, Loctite, etc. Associated emissions are tracked by process codes and then designated to a group in the spreadsheet. In the past, the facility only emitted one carcinogenic VOC, methylene chloride. This HAP is contained in an acrylic adhesive used in very small quantities by maintenance to join piping. The facility is tracking the methylene chloride use in the spreadsheet. It appears that the facility has not used the adhesive in the last two years. No methylene chloride was reported.

The tour was then led to the back of the building to the shipping and dock area. EU-FIREPUMP#2 was located by the shipping docks in an enclosure. The unit was in good working condition, and appeared to be compliant with all requirements. The last stop of the tour was EUGASTANK, which is located nearby in the same parking lot as FIREPUMP#2. This unit is an existing stationary gasoline dispensing tank. It contains both diesel and unleaded gasoline. Spill kits are located near the unit, and it appears the facility is handling the fuels in an appropriate manner to avoid vapor release into the atmosphere. The facility has a monthly throughput limit of no more than 10,000 gallons. In2023, the facility did not use more than 20,000 gallons all year. It appears this unit is compliant with the requirements.

The tour then concluded with Ms. Smith leading the way back to the front of the facility. She was informed that a records request would be made through email in the following days. A records request was sent to the facility on September 9, 2024, and the full set of records were received on September 13, 2024. This was within the time allowed, and all records were received. AQD's compliance determination is summarized below. This is based on the information gathered during the records review and inspection. Material usage and VOC emissions records are the main components of the records reviewed. The highest 12-month rolling average value observed during the records review is listed under the "Records" column, in the tables below. Each Emission Unit is also listed below with its associated compliance determination.

MI-ROP-N1192-2023 Section 1:

Source-Wide

The Facility has Source Wide conditions, which includes all equipment located at the facility. Due to being a Synthetic Minor Source for HAPs, they have emission limits of 9.0 tons per year (tpy) for each individual HAP and less than 22.5 tpy of aggregate HAPs. In addition, there are VOC limits of less than 225 tpy for all equipment at the source and less than 30 tpy from all metallic surface coating lines per R 336.1621(10). These records are all on a 12-month rolling basis.

VOCs are tracked in a separate spreadsheet. They are organized by chemical name, part number, and where the application area is located in the facility. Parts and the chemical used on them are tracked by the number produced over the course of a month. This is then used to calculate the VOC emitted, per chemical by part, in another table in the spreadsheet. These tables include calculations of VOC in

Ibs/item and VOC conversion to pounds. The spreadsheets are all linked together, and all VOC emissions are organized by the department they come from. They are totaled together monthly, and then this is used to calculate the 12-month rolling totals.

Emission Limits

Pollutant	Limit	Time Period	Records
Each Individual HAP	Less than 9.0 tpy	12-month rolling	6.24 Hydrofluoric acid (2023)
Aggregate HAPs	Less than 22.5 tpy	12-month rolling	8.41 tpy (July 2024)
VOC	Less than 225 tpy	12-month rolling	122.49 tpy (May 2024)
voc	30 tpy (All metallic surface coating lines)	12-month rolling	8.81 tpy (May and March 2024)

Based on the records submitted, areas being tracked for HAPs and VOC are the plastic injection molding, natural gas combustion, maintenance and facilities chemicals, and final assembly. The emissions are calculated by the area, monthly. HAP emissions are broken down into monthly emissions by the part number, name of coating, HAPs per item, CAS number and percent HAP.

It appears that the facility is compliant with the limits set in the Source Wide conditions.

Heater Core Manufacturing Area

Heater core emissions are tracked in their own spreadsheet. The sheet is broken down into each sub department, VOC containing material used in each department, percent captured, control efficiency, and calculated VOC emissions. Pounds of each material used are tracked in the VOC tracking spreadsheet.

EU-HTR1 with H451 Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	12 tpy	12-month rolling	3.08 tpy (June 2023)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	39.3 tpy	12-month rolling	9.5 tpy (July 2024)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
H451 Thermal Oxidizer	1,292 F	720 C	No temp, Line was not in operation	9-17-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-HTR2 and H751 Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	10.3 tpy	12-month rolling	2.31 tpy (July 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	33.7 tpy	12-month rolling	8.10 tpy (July 2023)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
H751 Thermal Oxidizer	1,400 F	780 C	781 C	9-17-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

Condenser Manufacturing Area

EU-CONDMF3 with C452A Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	28.4 tpy	12-month rolling	2.31 tpy (July 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	45.6 tpy	12-month rolling	6.7 tpy (February 2024)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
H751 Thermal Oxidizer	1,292 F	720 C	720 C	9-9-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-CONDMF41 with C550A Thermal Oxidizer, C1100 Two (2) Cartridge Filter Dust Collection Systems, C1200 Two (2) Cartridge Filter Dust Collection Systems, C1300 Two (2) Cartridge Filter Dust Collection Systems

Emission Limits

Pollutant	Limit	Time Period	Records
VOC	29.5 tpy	12-month rolling	9.10 tpy (February 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	57.4 tpy	12-month rolling	24.8 tpy (January 2024)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
C550A Thermal Oxidizer	1,400 F	780 C	777 C	9-9-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-CONDGIC2 with C1150A Thermal Oxidizer, C1100 Two (2) Cartridge Filter Dust Collection Systems, C1200 Two (2) Cartridge Filter Dust Collection Systems, C1300 Two (2) Cartridge Filter Dust Collection Systems

Emission Limits

Pollutant	Limit	Time Period	Records
voc	30.5 tpy	12-month rolling	11.09 tpy (January 2023)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	70.3 tpy	12-month rolling	24.8 tpy (January 2023)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
C1150A Thermal Oxidizer	1,292 F	720 C	722 C	9-10-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

Evaporator Manufacturing Area

EU-EVAP1 with C801 Thermal Oxidizer, C801 Cartridge Filter Dust Collection System

Emission Limits

Pollutant	Limit	Time Period	Records
voc	36.0 tpy	12-month rolling	0.70 tpy (June 2024)

Material	Limit	Time Period	Records
Machining Oil	31.1 tpy	12-month rolling	2.6 tpy (April 2024)

Brazing flux with a VOC content of >1.0% by weight	75.3 tpy	12-month rolling	This brazing oil type is not used for this evaporator.
Brazing flux with a VOC content of 1.0% and less by weight	169.0 tpy	12-month rolling	89.8 tpy (July 2024)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
C801 Thermal Oxidizer	1,400 F	780 C	782 C	9-16-23

In the previous inspection, Ms. Smith stated that each evaporator line only uses one type of brazing oil. The oil used on each line has usage amounts associated with the line.

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-EVAP2 with C852 Thermal Oxidizer, C884 Thermal Oxidizer, C854 Cartridge Filter Dust Collection System, E310 Two (2) Cartridge Filter Dust Collection Systems

Emission Limits

Pollutant	Limit	Time Period	Records
voc	36.0 tpy	12-month rolling	11.7 (June 2024)

Material	Limit	Time Period	Records
Machining Oil	23.4 tpy	12-month rolling	2.6 tpy (April 2024)

Brazing flux with a VOC content of >1.0% by weight	55.2 tpy	12-month rolling	23.58 tpy (June 2024)
Brazing flux with a VOC content of 1.0% and less by weight	169.0 tpy	12-month rolling	This brazing oil type is not used for this evaporator.

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
C852 Thermal Oxidizer	1,400 F	785 C	785 C	9-16-23
C884 Thermal Oxidizer	1,400 F	788 C	787 C	9-9-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-EVAP4 with E210 Two (2) Cartridge Filter Dust Collection Systems, C902 One Cartridge Filter Dust Collection System

Emission Limits

Pollutant	Limit	Time Period	Records
voc	26.6 tpy	12-month rolling	11.7 (June 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	26.6 tpy	12-month rolling	21.00 tpy (April 2024)

https://intranet.egle.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=24... 9/30/2024

Brazing flux with a VOC content of >1.0% by weight	55.2 tpy	12-month rolling	This brazing oil type is not used for this evaporator.
Brazing flux with a VOC content of 1.0% and less by weight	169.0 tpy	12-month rolling	89.8 tpy (July 2024)

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-EVAP5

Emission Limits

Pollutant	Limit	Time Period	Records
voc	21.6 tpy	12-month rolling	17.8 tpy (April 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	21.6 tpy	12-month rolling	17.7 tpy (July 2024)

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-EVAPCS2 with E320A Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	7.3 tpy	12-month rolling	3.75 tpy (April 2024)

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Material Limits

Material	Limit	Time Period	Records
Machining Oil	35.4 tpy	12-month rolling	17.66 tpy (July 2024)

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
E320A Thermal Oxidizer	1,292 F	720 C	720 C	9-23-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-EVAPSP4

Small parts manufacturing area with Cartridge Filter Dust Collection System

Emission Limits

Pollutant	Limit	Time Period	Records
voc	13.6 tpy	12-month rolling	11.7 tpy (June 2024)

Material	Limit	Time Period	Records
Machining Oil	12.8 tpy	12-month rolling	2.60 tpy (April 2024)

Brazing flux with a	120.6 tpy	12-month rolling	84.86 tpy (June
VOC content of		_	2023)
>1.0% by weight			

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-GASTANK

The facility is required to keep records of gasoline throughput to be able to demonstrate that monthly throughput is less than 10,000 gallons. Ultra Low Sulphur Diesel throughput for the year was 20,037.9 gallons, well below the limit. Unleaded Plus usage was 1660.2 gallons total for the year, also well below the limit. This was for the year of 2023, and it appears that the unit is compliant.

Radiator Manufacturing Area

EU-RDR1 with R540 Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	19.0 tpy	12-month rolling	11.7 tpy (June 2024)

Material Limits

Material	Limit	Time Period	Records
Machining Oil	38.7 tpy	12-month rolling	20.0 tpy (July 2024)
Bonderite Weld Tube Mill Machining Oil	882 gallons per year	12-month rolling	169.5 gallons (January 2023

In the last two years, Bonderite has only been used for two months, and appears to have very limited use. The facility has not used any of the machining oil in 2024.

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
R540 Thermal Oxidizer	1,292 F	725 C	726 C	9-9-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

EU-RDR2-R140 Thermal Oxidizer

All departments and equipment associated with this Emission Unit have been removed from the facility. Recordkeeping shows that the Emission Unit was removed in December 2023. This was confirmed during the inspection by AQD staff. The space where this Emission Unit used to be is now used as storage for the other two radiator lines.

EU-RDR3 with R640 Thermal Oxidizer

Emission Limits

Pollutant	Limit	Time Period	Records
voc	22.4 tpy	12-month rolling	13.06 tpy (July 2024)

Material	Limit	Time Period	Records
Machining Oil	53.7 tpy	12-month rolling	31.6 tpy (July 2024)
Bonderite Weld Tube Mill Machining Oil	882 gallons per year	12-month rolling	169.5 gallons (January 2023

In the last two years, Bonderite has only been used for two months, and appears to have very limited use. The facility has not used any of the machining oil in 2024.

Design / Equipment Parameters

Equipment	Limit	Set Point	Inspection	Calibration Date
R540 Thermal Oxidizer	1,292 F	725 C	726 C	9-9-23

Compliant? Yes, the facility appears to be in compliance with the limits set for this Emission Unit.

FG-COLDCLEANERS

The facility appears to be in compliance with the requirement to maintain MSDS sheets. Four MSDS sheets were submitted and received by AQD staff. At the time of the inspection no cold cleaner could be found on-site, and Ms. Smith confirmed that the one that was once located in the heater core area had been removed.

FG-RULE290

Total Bonderite usage for the last two years, across all three Emission Units, EU-RDR1, EU-RDR2 and EU-RDR3, was 18.3 gallons in March, and 18.3 gallons in November of 2023. Since this is a controlled Emission Unit, the emission limit in Rule 290 is 500 pounds of VOC per month. The facility is complying with both Rule 290 and the Bonderite usage limit contained in the Radiator Special Conditions in the permit.

FG-MACT-ZZZZ≤500HP

This Flexible Group contains units EU-FAG#1, EU-FAG#2, EU-FAG#3, EU-FAG#5, EU-FAG#6, EU-FIREPUMP#1, and #2. Maintenance records were provided by the facility for review.

Generator ID/ Location	Fuel	Brake HP	Install Date	Regulation	Manufacturer	Hour Meter Reading
FAG #1 / Powerhouse	Diesel	134	1985	ZZZZ	Cummins	1471.1

FAG #2 / Powerhouse	Diesel	61	1986	ZZZZ	Cummins	1053.9
FAG #3 / Powerhouse	Diesel	66	1987	zzzz	Cummins	1017.5
FAG #5 / Office Roof	Gas	202	1999	ZZZZ	Cummins	825.5
FAG #6 / Outside J- 20	Gas	176	2001	ZZZZ	Ford	1040.4
FAG #7 / Roof	Gas	44	2011	NSPS/JJJJ	GM	636.0
Fire Pump #1 / Pump House #1	Diesel	231	1985	zzzz	Caterpillar	1252.0
Fire Pump #2 / Pump House #2	Diesel	208	1993	ZZZZ	Cummins	822.1

It appears that the units in this Flexible Group are compliant with 40 CFR Part 63, Subpart ZZZZ. Recordkeeping documents show manufacturer maintenance, which meets the requirements of the permit to maintain the units to the manufacturer's emissions-related written instructions.

FG-NSPS-JJJJ

This Flexible Group contains EU-FAG#7. The facility previously provided the manufacturer's emission certificate that shows the generator complies with the 40 CFR Part 60, Subpart JJJJ emission limitations for natural gas fired emergency generators based on its installation date. It appears compliant.

FGSURFACECOAT

Emission Units: EU-C832, EU-C833, EU-C834, EU-C933

Emission Limits

Pollutant	Limit	Time Period	Records

voc	30.0 tpy	12-month rolling FGSURFACECOAT	8.81 tpy (May 2024)
voc	10.0 tру	12-month rolling each Emission Unit in FGSURFACECOAT	2.5 tpy on C933 (May 2024)
VOC	2,000 lbs/month	Calendar month each Emission Unit in FGSURFACECOAT	512 lbs/month on C832 (October 2023)

The facility appears to be in compliance with the limits in this Flexible Group.

Miscellaneous

During the previous inspection, the facility had a spray can puncturing machine in the Heater Core area. It was confirmed through conversations with Ms. Smith that this equipment has since been removed from the facility.

DENSO Air Systems Michigan, Inc. (N2037)

During the inspection, AQD staff asked Ms. Smith what the operation status was for DENSO's air systems building located at 300 Fritz Keiper Blvd. Ms. Smith stated that all equipment has been removed from the location and that the building is empty. DENSO is currently going through the process of selling the building. A closing date is expected in the coming weeks, with the new owners already moving equipment into the space. AQD will mark this facility as "Permanently Closed". Scott LeForge, the previous contact for the facility was transferred to a Project Manager position within DENSO. AQD staff received pictures from Ms. Smith confirming that the building is empty.

After reviewing what was observed during the on-site inspection and determining that the records were satisfactory with permit requirements, it appears that DENSO is currently in compliance with ROP No. MI-ROP-N1192-2023 and all other state and federal regulations. Staff concluded the inspection at 12:40 PM. -JLE

https://intranet.egle.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=24... 9/30/2024

NAME_<u>JCalgerton</u>____

DATE 9/30/24

SUPERVISOR Monica Brothers