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

P042964471

FACILITY: Magna DexSys (Delta Exterior Systems)		**SRN / ID:** P0429
LOCATION: 5589 W. MOUNT HOPE HIGHWAY, LANSING		**DISTRICT:** Lansing
CITY: LANSING		**COUNTY:** EATON
CONTACT: Tim Gibbons , Environmental Specialist		**ACTIVITY DATE:** 09/08/2022
STAFF: Matthew Karl	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection to determine compliance with MI-ROP-P0429-2017.		
RESOLVED COMPLAINTS:		

Purpose:

The purpose was to conduct an announced, scheduled site inspection of (Magna) DexSys to determine compliance with Clean Air Act (CAA) Title V program renewable operating permit (ROP) No. MI-ROP-P0429-2017.

Facility Description:

(Magna) DexSys is an automotive parts manufacturer of front- and rear-end bumper fascia are created using mold injection presses and a paint coating line equipped with robotic spray applicators.

Inspection:

I (Matt Karl) met with facility contact Tim Gibbons, Environmental Specialist. We reviewed the permit MI-ROP-P0429-2017 conditions and how (Magna) DexSys was demonstrating compliance with them. After going through the permit conditions, we performed a walkthrough of the facility. I have included key items reviewed to determine compliance during this inspection for each emission unit and flexible group below.

EUPLASTICCOATING

The emission unit EUPLASTICCOATING is a surface coating operation of plastic automotive components. The coating operation consists of an uncontrolled paint kitchen; a five – stage parts washer with a natural gas-fired hot water heater; three (3) water wash spray booths for application of adhesion promoter (AdPro), basecoats, and clearcoats, and three (3) natural gas-fired drying ovens. The spray coating operation occurs in a permanent total enclosure (PTE) and is controlled by a regenerative thermal oxidizer (RTO).

Regarding the AdPro and clearcoat booths zones 1 and 2 use electrostatic applicators. The zone 3 basecoat booth uses robotic applicators. No changes have been made to the applicators since the last inspection.

The PTE is required to be maintained at a negative pressure differential of <0.007 inches of water. I reviewed records that are maintained in a binder separated by month for August 2022. The PTE opening at Clear Coat (CC2) oven differential pressure averaged around ~-0.04 inches water. The PTE opening at Tack Off averaged around ~-0.02 inches water. I confirmed the pressure differential was <0.007 inches of water for those zones during the walkthrough inspection.

The RTO is required to have a minimum combustion chamber temperature of ≥1500°F. I reviewed records that are maintained in a binder separated by month for August 2022. The RTO combustion chamber averaged around ~1520°F for August 2022. Records were also present that demonstrated that RTO bypass valve monitoring was occurring and that no bypasses had occurred recently. I confirmed an RTO combustion chamber of 1520°F during the walkthrough inspection. Stack testing on 06/30/2020 demonstrated that at least a minimum VOC destruction efficiency of 95% was being achieved.

No excursions or exceedances of the requirements for the PTE or RTO have occurred recently. A parts inventory is maintained on site to perform preventative maintenance on the equipment.

The contents of the coatings and solvents are determined on a batch basis from manufacturer's formulation data. The manufacturer's formulation data are maintained both electronically and in hard copy at the facility. The amounts of coatings used, and air emissions are calculated in an Excel spreadsheet. Air emissions information from EUPLASTICCOATING are included in the table below:

Pollutant	Limit	Reported	Compliance Status
1. VOC	59.1 TPY	7.8 TPY (13% of limit)	Compliance
2. Cumene (CAS No. 98-82-8)	744.6 lb/yr	153.3 lb/yr (21% of limit)	Compliance
3. Ethyl benzene (CAS No. 100-41-4)	10,792.3 lb/yr	415.6 lb/yr (4% of limit)	Compliance
4. Naphthalene (CAS No. 91-20-3)	1,033.7 lb/yr	27.7 lb/yr (3% of limit)	Compliance
5. Xylenes (CAS No. 1330-20-7)	108.0 lb/day	8.4 lb/day (8% of limit)	Compliance
6. Formaldehyde (CAS No. 50-00-0)	876.0 lb/yr	44.4 lb/yr (5% of limit)	Compliance

I reviewed records for the 12-month rolling time period from September 2021 to August 2022 for the ton per year limits, and the first week of September 2022 for the Xylenes daily limit, the highest emission being on 09/02/2022.

The wastes from the coating line are piped into closed storage tanks. The liquids are separated from the solids and are reclaimed or disposed of. All coatings and solvents are stored in closed containers and are properly reclaimed/disposed of by the facility. I observed during my

walkthrough inspection that all the coating and solvent drums had lids and were closed. Drums in storage were raised off the floor on wood pallets.

EUFINESSE

The emission unit EUFINESSE is for defect repair using hand-held sanders and buffing pads. The part will be cleaned after repair with a cloth containing isopropyl alcohol and water.

The facility uses manufacturer's formulation data to determine the VOC contents of the solvent used. The facility tracks the amount of solvent used in EUFINESSE and uses that to calculate VOC emissions in an Excel spreadsheet. I reviewed the 12-month rolling total and included it in the table below:

Pollutant	Limit	Reported	Compliance Status
1. VOC	2.0 TPY	0.1 TPY (5% of limit)	Compliance

I reviewed records from September 2021 to August 2022.

Waste solvents are stored in closed containers in a way to minimize exposure to the air.

FG-MACT-PPPP

This flexible group consists of EUPLASTICCOATING and EUFINESSE, which are subject to the federal requirements of 40 CFR Part 63, Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.

The facility complies with the organic HAP emission limit using option 40 CFR 63.4491(c) emission rate with add-on controls option. The facility maintains manufacturer's formulation data in electronic and hard copy for the materials used. The facility tracks the amount of material used in an Excel spreadsheet and uses that information to determine the 12-month rolling emission rate. The facility currently does not use general use coatings.

Pollutant	Limit	Equipment	Reported	Compliance Status
1. Organic HAP	0.22 lb per lb of coating solids (12-month rolling)	New or Reconstructed Thermoplastic Olefin (TPO) Coating	1. lb per lb (5% of limit)	Compliance

I reviewed records from September 2021 to August 2022.

The facility maintains the RTO control and PTE as required. The RTO is maintained at >1500°F and the PTE is maintained with differential pressure of <-0.007 inches water column.

FGMOLDING

This flexible group consists of four (4) 4,000-ton and one (1) 2,200-ton injection molding presses that include the use of mold release agents and thermoplastic olefin (TPO) resin pellets to produce automotive front and rear bumpers (fascia)

EUMOLD#6, one (1) injection molding press is considered exempt from the requirements of Rule 201 under the provisions of Rule 286(2)(b).

The process uses hand-held aerosol cans to apply mold-release agents. The VOC contents are determined from manufacturer's formulation data which is kept in electronic and hard copy formats. The usage of the materials is tracked in an Excel spreadsheet and is used to calculate the VOC emissions from FGMOLDING. I have included the 12-month rolling total in the table below:

Pollutant	Limit	Reported	Compliance Status
1. VOC	0.6 TPY	0.2 TPY (33% of limit)	Compliance

I reviewed records from September 2021 to August 2022.

Wastes are stored in closed containers and are disposed of by the facility.

FGNATURALGAS

The facility keeps monthly records of pipeline quality natural gas used in an Excel spreadsheet. I have included the material use in the table below:

Material	Limit	Reported	Compliance Status
1. Natural Gas	573 MMcf	23 MMcf (4% of limit)	Compliance

I reviewed records from September 2021 to August 2022.

FG-MACT-DDDDD

This flexible group contains the federal conditions of 40 CFR Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The conditions apply to a 12.5 MMBtu per hour heat input capacity boiler used to heat water in the parts wash portion of the coating operation. The boiler only burns pipeline quality natural gas. Maintenance is performed during annual tune ups of the boiler. The facility maintains required records in electronic and hard copy versions. I observed the boiler during the walkthrough inspection.

FGDIESELENGS

This flexible group consists of three (3) diesel fuel-fired emergency engines, each subject to federal standards of 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The emission units consist of:

EUFIREPUMPENG, a 190 kW (241 hp) DEUTZ AG model year 2009.

EUDIESELENG#1, a 130 kW (198 hp) Generac industrial model SD130 model year September 9, 2015.

EUDIESELENG#2, a 563 kW (744 hp) Tacoma Cummins industrial model QSX15 model 2007 or later.

The facility is required to only burn diesel fuel with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. Each diesel fuel delivery has a fuel contents record with the required information. The fuel is compliant with the material limits and there has been no variation in the fuel contents recently. The engines are operated as certified engines and are operated according to the manufacturer's instructions. The facility tracks the fuel usage for the engines and uses MAERS emission factors to calculate annual emissions from the engines.

The facility keeps records of the hours of operation of the engines in an Excel spreadsheet. I reviewed records from September 2021 to August 2022. The operating time was for readiness testing and maintenance. The engines have not operated in an emergency capacity.

EUDIESELENG#1: 25.50 hours per 12 month rolling time period (5% of limit)

EUDIESELENG#2: 23.70 hours per 12 month rolling time period (5% of limit)

EUFIREPUMPENG: 27.50 hours per 12 month rolling time period (6% of limit)

In the same Excel spreadsheet, the facility tracks the total operating time for each engine from a non-resettable hour meter.

EUDIESELENG#1: 215.51 hours total

EUDIESELENG#2: 177.6 hours total

EUFIREPUMPENG: 207.8 hours total

FG-COLD CLEANERS

New cold cleaners that were placed into operation after July 1, 1979. The two solvent-based cold cleaners are:

EUPartsCleaner1: A Justrite Liquid Safety Rinse Tank with an air:vapor interface of 4.5 ft^2.

EUPartsCleaner2: A Graymill Parts Washer with an air:vapor interface of 5.8 ft^2.

The facility does not use cleaning solvents that contain more than five (5) percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination.

The facility keeps electronic and hard copies of manufacturer's formulation data to demonstrate compliance with the material content limit. The cold cleaners are kept covered and are mechanically assisted by a foot pedal to open/close the cold cleaner cover. The cold cleaners are not heated. The operating instruction procedures are posted on the cold cleaners.

FG-RULE 287(2)(c)

This flexible group consists of EUPaintbooth a paint booth used to paint parts with aerosol cans. The booth is equipped with dry filter controls. The booth is exempt from the requirements of Rule 201 pursuant to Rule 287(2)(c).

The amount of coating applied is tracked in an Excel spreadsheet and is used to determine compliance with the material limit:

Material	Limit	Reported	Compliance Status
1. Coatings	200 gallons/month as applied, minus water, per emission unit	26 aerosol cans = 2 gallons per month (1% of limit)	Compliance

I reviewed records for August 2022.

Documentation of monthly filter control replacements are kept by maintenance staff.

FG-RULE290

This flexible group consists of EURockerPanelAssembly, which is the "rocker cell" a process using a 99% IPA solution to pre-clean parts prior to applying peel and stick adhesive to those parts. This emission unit is exempt from the requirements of Rule 201 pursuant to Rule 290.

The facility tracks the amount of solvent used in an Excel spreadsheet. I reviewed records for August 2022, where 17 gallons of 99% IPA were used, which resulted in 110 lbs/month emissions (11% of the emission limit).

Conclusions:

At the time of the inspection, (Magna) DexSys appeared to be in compliance with the requirements of MI-ROP-P0429-2017.

NAME Matthew M. Kool DATE 9/12/2022 SUPERVISOR RB