

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

P042954429

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: 06/30/2020
STAFF: Samantha Davis	COMPLIANCE STATUS: Compliance
SOURCE CLASS: MAJOR	
SUBJECT: This was a scheduled inspection as part of an FCE. This inspection was announced due to COVID-19.	
RESOLVED COMPLAINTS:	

Personnel Present Tim Gibbons, Environmental Specialist, timothy.gibbons@magna.com

Purpose

Conduct an announced, scheduled, inspection of Magna DexSys. This inspection was announced due to COVID-19.

Additionally, Dave Patterson and I were on site prior to the inspection to observe a stack test required by MI-ROP-P0429-2017 to test the destruction efficiency of the RTO for EUPLASTICCOATING. Details on this can be found in my Stack Test Observation report.

Facility Background/Regulatory Overview (from Michelle Luplows Report on 12/18/2017)

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

DexSys was issued their initial ROP, MI-ROP-P0429-2017, August 14, 2017.

Permitting History

PTI No. 38-13 was issued on May 3, 2013 to Magna DexSys (under the name Lansing Division of Norplas Industries) for a plastic parts coating line controlled by an RTO, preheater, and 5 natural gas-fired ovens. The permit contained EUMOLD#1-#4 (mold injection presses), EUPREWASH (a 5-stage parts washer), EUPLASTICCOATING (surface coating operations of plastic automotive front and rear bumpers), EUCLEANUP (cleanup operations throughout the facility), EUSOLVENTTANKS1-2 (solvent storage tanks), EUHWMU (hazardous waste storage), EUDIESELENG (350 kW emergency engine), and EUHEATERS (natural gas-fired hot water heaters, etc). This permit was issued prior to Magna DexSys constructing the building that would house these emission units. A site review of the land prior to issuance of the permit was conducted 3/2013 by Brad Myott. Through the issuance of this permit Magna DexSys also acknowledged that they were a major source of HAPs and consequently subject to the MACT NESHAP Subpart P for Surface Coating of Plastic Parts and Products.

On December 19, 2014, PTI No. 38-13A was issued. After constructing the Magna DexSys facility, Magna DexSys applied for this permit modification because upon reaching the final stages of the construction and installing various emission units, the predicted "as-build" design which DexSys had originally applied for did not predict the changes that needed to be made during the actual construction and installation of emission units. PTI No. 38-13A added another EUMOLD, removed EUPREWASH and EUHWMU and included them in EUPLASTICCOATING, removed FGCLEANUP, and added EUFINESSE.

A modification to PTI No. 38-13A was issued June 15, 2015 under PTI No. 38-13B. This permit modification included the addition of a fire pump engine (EUFIREPUMPENG), altering some of the emission limits and updating some of the equipment descriptions. This included changing a few conditions in the EUPLASTICCOATING Design/Equipment Parameters section. In PTI 38-13A Magna DexSys was only allowed to use robotic bell disk, electrostatic applicators, or comparable technology with equivalent transfer efficiency for all coating operations in EUPLASTICCOATING. During the April 2015 stack test, S. Guyett showed me that Magna DexSys was using robotic bell disk applicators/electrostatic technology in

Zones 1 and 2 (Basecoat 1 and Basecoat 2). The third zone, Basecoat 3, used only a spray gun applicator: the same gun they use for the AdPro, but not electrostatically charged. Magna DexSys was therefore operating out of compliance with PTI 38-13A during the stack test. They explained that the third zone was used to spray paint within cracks, crevices, and hard-to-reach angles that couldn't be achieved by the robotic bell disks or electrostatically charged spray. I made K. Zielinski aware that this was considered non-compliant operations at the time, and I told her that if she can get the PTI modification into AQD within 2 weeks of 4/28/15 to allow for a robotic applicator in zone 3 only, a violation notice would not be issued. Magna DexSys did so, and the condition was included in PTI No. 38-13B.

In September 2015 DexSys submitted a PTI modification under 38-13C to opt-out of the MACT P for taking a HAPs optout

limit. However, after further discussion between Brad Myott, Vrajesh Patel (permit engineer for 38-13C), Bob Byrnes (LDO Auto Specialist) and I, the conclusion was made that DexSys would have to appeal to the EPA Region V to make the determination whether or not DexSys was truly a minor source of HAPs, rather than the major source of HAPs that they were permitted under, or if they were fixed into the MACT "once in, always in" policy. The opt-out application for 38-13C was voided 12/1/15 while DexSys waited for EPA's determination. DexSys' position was that their permit was issued based on information from one of their other facilities that uses solvent-borne coatings; however, DexSys constructed their current facility in a way that could only accommodate water-borne coatings, and therefore HAP emissions would be relatively minimal compared to what was proposed in the permit to install application. On 8/30/16 EPA Region V made the determination that DexSys is a major source of HAP for the purposes of MACT Subpart P, and is therefore also subject to the Title V ROP program. The EPA posited that because waste from the process contains xylene, and there is no federally enforceable requirement that requires the waste solvent tanks be vented to the RTO (which is the process DexSys currently has in place for handling waste solvent [see 6/21/16 Regulatory Determination activity report]), the xylene emissions have the potential to exceed HAP major source thresholds.

On December 19, 2015 PTI 38-13D was issued to incorporate an additional diesel emergency generator (EUDIESELENG#2). This unit was installed prior to permit issuance (October 2015), but the AQD was not aware of this until after the PTI was issued. I reminded John Krockner, who currently no longer works for DexSys, then and again during the last inspection, that emission units are not allowed to be installed prior to permit issuance. A violation was not cited, as the PTI had already been issued and the resolution to the potential violation would likely have been to obtain a PTI for the unpermitted, yet installed, equipment.

PTI, 38-13E was issued January 10, 2017 to include modifications of the FGDIESELENGS individual stack heights and orientations. This PTI was also rolled into MI-ROP-P0429-2017.

Consent Order History

During the 7/23/2015 inspection, B. Byrnes explained to K. Zielinski and S. Guyett that, per the MACT P, if DexSys wanted to take control credit for their HAPs emissions, they must install a continuous monitor at the entry and exit points of their Permanent Total Enclosure (PTE) in order to have a continuous record of the pressure drop at these points. DexSys submitted their initial compliance report per the MACT P for the initial compliance period of 11/3/2014-11/30/2015, stating that they used the add-on control compliance option during the initial compliance period. In April 2016 I asked for records of pressure differential across the PTE, demonstrating that the pressure differential at the entrance and exit points were continuously monitored and at or below the -0.007 in. H₂O during the initial compliance period; however, DexSys did not have these records. Without the continuous monitoring and recording of the pressure drop, DexSys was not allowed to claim control credit for their HAPs emissions and as a result, exceeded their HAP emission limit of 0.16 lb HAP/lb coating solids for the initial compliance period through April 2016. DexSys started to continuously monitor and record the pressure differential data as of May 3, 2016. Because of the exceedance of a MACT standard emission limit, a violation notice was issued on 7/26/16 and a referral package was submitted to Jason Wolf of the Enforcement Unit on 9/13/16. A Consent Order (AQD No 3-2017) was issued January 2017 to resolve the MACT Subpart P violations.

As of January 31, 2017, DexSys has the option to request that the monitoring data required by the Consent Order no longer be required to be submitted.

Inspection

At approximately 8:15 a.m. on June 30th, 2020 I met with Tim Gibbons, Environmental Specialist. I was required to fill out a questionnaire and have my temperature taken prior to entering the facility. I was also required to wear a mask at all times. There were no visible emissions or odors upon my arrival. Initially I was there to observe the stack test for EUPLASTICCOATING. Dave Patterson and I observed all Run 1 and the start-up of Run 2. Due to the method of testing, no immediate results would be able to be determined; therefore, Dave left the facility and T. Gibbons and I started the inspection of the facility. Due to COVID-19 T. Gibbons and I agreed that we would only walk around to see the major emission units, we did not look at all the exempt equipment. We also kept our post meeting short and agreed to have all records emailed to me to limit my time inside the facility and paper handling.

EUPLASTICCOATING

The EUPLASTICCOATING line is used to coat various automobile fascia. The permit covers the following equipment under this emission unit: an uncontrolled paint kitchen; a 5-stage parts washer with a natural gas-fired hot water heater (subject to the Boiler MACT Subpart D); 3 water wash spray booths (AdPro, basecoats, clearcoats); and 3 natural gas-fired drying ovens. All VOC's from this process are controlled by a regenerative thermal oxidizer (RTO).

Records review: This was operating during my inspection. Following the inspection I received 12-month rolling emission records for this unit for 2020. See table below for PTI limits and actuals.

	VOC	Cumene	Ethyl benzene	Naphthalene	Xylenes	Formaldehyde
Permit Limit	59.1 tpy	744.6 lb/yr	10,792.3 lb/yr	1,033.7 lb/yr	108.0 lb/day	876.0 lb/yr

Actual (as of June 2020)	7.08 tpy	123.51 lb/yr	623.34 lb/yr	71.96 lb/yr	187.56 lb/month	42.41 lb/yr
---------------------------------	-----------------	---------------------	---------------------	--------------------	------------------------	--------------------

Stack testing was occurring for the RTO control on this unit the day of my inspection. You can reference details for this testing on my stack test observation report. At this time there are no immediate results for the test, as we are waiting on the samples to be analyzed at the lab. I also received a list of all coatings being used during the stack test the day of my inspection. A list of these coatings can be found attached to the hard copy of the stack test report.

EUFINESSE

EUFINESSE is a defect repair station using hand-held sanders, buffing pads, and a solution of isopropyl alcohol (IPA) (20%) and water (80%) on painted plastic parts. The IPA solution is specifically used for removing the residue from the sanding cream.

Record review: See table below for records received for 2020.

	VOC
Permit Limit	2.0 tpy
Actual (as of June 2020)	0.05 tpy

FGMOLDING

The injection mold presses (EUMOLD#1 - #5) in this flexible group are used to mold the automotive front and rear bumpers. Once molded, the robots remove the excess plastic which is then ground up and reused. A flame is used to burn off "residual" plastic that is too fine to remove via cutting.

Record review: See table below for records received for 2020.

	VOC
Permit Limit	0.6 tpy
Actual (as of June 2020)	0.19 tpy

FGNATURALGAS

This unit contains the emission units EUPLASTICCOATING and EUHEATERS and was established to encompass natural gas usage facility-wide.

Record review: See table below for records received for 2020.

	Natural Gas
Permit Material Limit	573 MMcf/yr
Actual (as of June 2020)	54.6 MMcf/yr

FG-MACT-PPPP

This flexible group encompasses EUPLASTICCOATING and EUFINESSE and is for each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products, identified within each of the 4 subcategories listed in 40 CFR Part 63, Subpart PPPP. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing and storage if they are directly related to the application of the coating.

A minimum temperature of 1500F is require on the thermal oxidizer. I received RTO temperature data from the 6/30 stack test and verified that the temperature was at or above 1500F. Destruction efficiency is being analyzed at the lab following the stack test. Dexys must also ensure the direction of air flow is directed into the enclosure continuously. This is ensured by monitoring pressure drop across the enclosure with at least 0.007 in H2O. I monitored the pressure drop during Run 1 of the stack test and confirmed that the pressure drop stayed below the 0.007 limit.

FG-MACT-DDDDD

FG-MACT-DDDDD currently covers one Rite Water natural gas-fired heating boiler (Model 1250WG) used for heating washer water and temperature and humidity control for the paint system. The boiler originally permitted under EUHEATERS (also part of FGNATURALGAS), but because of its rated heat input capacity and water capacity (12.5 MMBtu/hr and 1319 gallons) it was found to also be subject to the Boiler MACT, 40 CFR 63 Subpart DDDDD; thus, conditions were added to the ROP to address this applicability.

There are no emission units for this unit, but the material limits require that the unit only use natural gas, refinery gas, or other gas 1 fuels. This unit only burns natural gas. This unit receives annual tune-ups.

FGDIESELENGS

This flexible group contains EUFIREPUMPENG, EUDIESELENG#1, and EUDIESELENG#2, all subject to NSPS Subpart IIII. EUDIESELENG#2, a 563 kW (744 hp) Tacoma Cummins diesel-fired engine, was the most recent engine installation as of October 2015, and is used to provide backup power to the new assembly line. EUDIESELENG#1 is a Generac 130 kW (198 hp) emergency diesel-fired engine that was installed 5/12/2014 and commenced operating in June 2014. EUFIREPUMPENG is a 190 kW (241 hp) DEUTZ AG diesel-fired emergency engine manufactured in 2009 and installed 4/18/2014.

Record review: See table below for records received for 2020. There were no emergency hours logged on these engines for 2020. All hours logged were for maintenance. I also received maintenance records for the engines for 2020.

	EUFIREPUMPENG	EUDIESELENG#1	EUDIESELENG#2
Engine hours (as of June 2020)	22.40	28.40	29.20
Total engine hours	1502	160.7	129.1

Compliance Statement: At this time it appears DexSys is in compliance with MI-ROP-P0429-2017.

NAME Samantha Davis DATE 7/30/2020 SUPERVISOR B.M.