P0594
MANILA

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

P059434272

FACILITY: MAGNA CLOSURES LIGHTING DIVISION		**SRN / ID:** P0594
LOCATION: 46600 PORT STREET, PLYMOUTH		**DISTRICT:** Detroit
CITY: PLYMOUTH		**COUNTY:** WAYNE
CONTACT: Garry Bucholz , Health/Safety/Environmental Manager		**ACTIVITY DATE:** 03/08/2016
STAFF: Usama Amer	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Targeted Inspection of an Opt-out Source		
RESOLVED COMPLAINTS:		

On March 8, 2016, I conducted a targeted inspection at Magna Closures-Autosystems America, Inc. (Magna), located at 46600 Port Street, Plymouth, Wayne County. The purpose of this inspection was to determine the facility's compliance with the state and federal air quality regulations as well as the conditions of Permit to Install (PTI) No. 42-15. Mr. Gary Bucholz, Health/Safety/Environmental Manager, represented Magna during the inspection.

BACKGROUND

Magna, an operating unit of Magna International, is a supplier of advanced closure systems and modules, as well as a variety of exterior and interior mirror systems, to the global automotive industry.

Magna is a manufacturer of automotive exterior lighting products which include headlamps, tail lamps, fog lamps and tail markers.

Magna was issued PTI No. 42-15 to cover the following emission units and flexible groups:

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUMOLDING	Fourteen (14) injection molding presses for production of headlight lenses, taillight lenses housing frames from various types of moplastic polymers	FGFACILITY
EUFIREPUMP	A 142 kW (190 hp) diesel fuel-fired emergency engine manufactured in 2014	FGFACILITY
EUGENERATOR	A 2,178 kW (2,922 hp) diesel-fueled temporary engine manufactured in 2011 or later	FGFACILITY
EUANTI-FOG	A single dry filter spray booth and electric cure oven	FGCOATING, FGFACILITY
EUHARDCOAT	A single dry filter spray booth and electric infrared cure oven	FGCOATING, FGFACILITY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOATING	Two (2) coating lines for application of anti-fog and hardcoat coatings to plastic headlight lens and taillight lamps.	EUANTI-FOG, EUHARDCOAT

FGFACILITY	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

Magna commenced partial operations in October, 2015. Currently, only 7 – 8 injection molding machines are running to mold head and tail lights of automobiles. Finished parts are shipped to sister plants in Canada and Mexico for final assembly. Upon receiving customer ordered, some parts are molded and assembled at this location. Hand-held aerosol cans of a hydrocarbon mold release are used in the molds. According to its MSDS, Attachment A, the mold release has a VOC content of 96% by weight, but does not contain "Ozone Depleting Chemicals". As a matter of fact, the hazardous chemicals listed in the said MSDS do not appear in the USEPA's HAPs List. The molds are also cleaned, when necessary, by spraying them with a Non-Chlorinated Brake Parts Cleaner, which contains VOC and HAPs, such as Methanol, Ethanol and Propane/Isobutane Blend. See Attachment B.

Magna does not use paints on molded parts. Up to 3 different colors are within the raw materials for the molded parts. However, two different coatings may be used on glass parts of the light fixtures:

1) A scratch prevention hard coating - MSD sheets of this coating is provided herewith as Attachment C

2) Two solvent base anti-fog coatings: GAF209A and GAF209B – Both coatings contain more than 96% VOC. These 2 coatings are mixed at the nozzle, and then sprayed in the molds. MSD sheets of these coatings are provided herewith as Attachments D & E.

COMPLIANCE EVALUATION

PTI No. 42-15 is an Opt-Out Permit for HAP's. The permit special conditions are paraphrased for brevity

EUMOLDING

DISCRIPTION: Fourteen (14) injection molding presses for the production of headlight lenses, taillight lenses and housing frames from various types of thermoplastic polymers.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario
1. VOC	2.0 tpy	12-month rolling time period as determined at the end of each calendar month

- The total VOC emission rate of 0.12 tons was reported for the period of October, 2015 through February, 2016.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Magna captures all waste mold release, cleaner and degreaser agents and shall store them in closed containers. The permittee shall dispose of all waste mold release agents in an acceptable manner in compliance with all applicable state rules and federal regulations.

- Empty aerosol cans are punctured, collected in waste bins and disposed of properly by an outside contractor.Cans residuals are collected in containers, manifested and disposed of properly by a contractor.

IV. DESIGN/EQUIPMENT PARAMETERS

1. Magna shall equip and maintain EUMOLDING with HVLP applicators or comparable technology with equivalent transfer efficiency, or use hand-held aerosol cans and wipes. For HVLP applicators, the permittee shall keep test caps available for pressure testing.

- Magna uses hand-held aerosol cans and wipes only. Empty aerosol cans are punctured, collected in waste bins and disposed of properly by an outside contractor.

VI. MONITORING/RECORDKEEPING

1. Magna shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.

- Attachments F.1 & F.2

2. Magna shall maintain a current listing from the manufacturer of the chemical composition of each mold release, cleaner and degreaser agent, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

- Magna has above record on file.

3. Magna shall keep the following information on a monthly basis for EUMOLDING:

a. Gallons or pounds of each mold release, cleaner and degreaser agent used.
b. VOC content, in pounds per gallon or pounds per pound, of each mold release, cleaner and degreaser agent as applied.
c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

- Above required are being kept by Magna. Attachments F.1 & F.2

EUFIREPUMP

DESCRIPTION: A 142 kW (190 hp) diesel fuel-fired emergency engine manufactured in 2014.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	
1. NMHC + NOx	4.0 g/kW-hr	Test Protocol*	
2. CO	3.5 g/kW-hr	Test Protocol*	
3. PM	0.20 g/kW-hr	Test Protocol*	
*Test protocol shall determine averaging time.			

- The fire pump was run for testing (Non-Emergency) purposes as follows:

- 0.5 hours in December, 2015 - Attachment F.1
- 1 hour in January, 2016 - Attachment F.2
- 1 hour in February, 2016 - Attachment F.2

- The fire pump is a certified, by the manufacturer John Deer, engine. Attachment H is a copy of the engine's certificate.

- Emissions Records: Magna did not start recording the emissions calculations of the fire pump, as it is newly installed and is operated for emergency readiness testing only since October, 2015.

- Magna ran the pump for testing (Non-Emergency) purposes for a total of 2.5 hours since its initial installation in October, 2015. It is assumed that the above pollutant emission rates could not have exceeded the stipulated PTI NO. 42-15 limits due to the short periods of operations. On the other hand, Magna is committed to perform the required emission calculations retroactively and on forward. Consequently, Magna's failure to conduct and keep emissions records is not to be considered a noncompliance.

II. MATERIAL LIMITS

1. Magna shall burn only diesel fuel in EUFIREPUMP with a maximum sulfur content of 15 ppm.

- The only fuel used in EUFIREPUMP was diesel fuel. Attachment I.1 is a copy of the diesel fuel MSDS. The MSDS shows a maximum sulfur content of less than 15 ppm. Also, Attachment I.2 is a copy of an email message forwarded, to the AQD, from the diesel fuel supplier assuring that the said sulfur content.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Magna shall not operate EUFIREPUMP for more than 500 hours per year, based on a 12-month rolling time period, for necessary maintenance checks and readiness testing.

2. Magna shall not operate EUFIREPUMP for more than 100 hours per calendar year for necessary maintenance checks and readiness testing.

- The fire pump was run for testing (Non-Emergency) purposes as follows:

- 0.5 hours in December, 2015 - Attachment F.1
- 1 hour in January, 2016 - Attachment F.2
- 1 hour in February, 2016 - Attachment F.2

3. Magna's EUFIREPUMP must comply with:

a. Operation as per manufacturer's emission-related written instructions

- Attachment J is a copy of Magna's Weekly Operation Tests

b. & c. - Magna operates a certified, by the manufacturer, engine. As per the engine certificate (Attachment H), the engine's "emission data listed was measured from a laboratory test engine according to the test procedures of 40 CFR 89, or 40 CFR 1039, as applicable".

4. Not applicable, as EUFIREPUMP is a certified, by the manufacturer, engine.

IV. DESIGN/EQUIPMENT PARAMETERS

1. EUFIREPUMP shall be equipped with non-resettable hours meters to track the operating hours.

- EUFIREPUMP is designed and built with non-resettable hours meters to track the operating hours.

2. EUFIREPUMP's capacity shall not exceed 142 KW

- EUFIREPUMP's certificate, Attachment H, shows that the engine is designed for 142 KW.

V. TESTING/SAMPLING

- Magna has contracted a testing company to conduct the required engine testing during Summer, 2016.

VI. MONITORING/RECORDKEEPING

1. Completion of required emission calculations

- Magna ran the pump for testing (Non-Emergency) purposes for a total of 2.5 hours since its initial installation in October, 2015. It is assumed that the above pollutant emission rates could not have exceeded the stipulated PTI NO. 42-15 limits due to the short periods of operations. On the other hand, Magna is committed to perform the required emission calculations retroactively and on forward. Consequently, Magna's failure to conduct and keep emissions records is not to be considered a noncompliance.

2. See note above.

3. Recordkeeping of the hours of operation of EUFIREPUMP

- The fire pump was run for testing (Non-Emergency) purposes as follows:

- 0.5 hours in December, 2015 - Attachment F.1
- 1 hour in January, 2016 - Attachment F.2
- 1 hour in February, 2016 - Attachment F.2

4. Recordkeeping of fuel certification records

- Magna received only one fuel delivery since the start up. Magna will request and keep fuel certifications for each fuel delivery.

VII. REPORTING

1. Completion of activity report

- Magna did not comply with above requirement within 30 days after completion of the installation and construction due to an unintentional oversight. However, Magna provided said notification on April 6, 2016. See Attachment K.

2. Notification of operating EUFIREPUMP in a certified manner

- Above notification is included in Attachment K.

3. Annual Report requirement for EUFIREPUMP

- Magna's fire pump has a HP rating greater than 100, but it was operated for only 0.5 hours in 2015 (see Attachment F.1). Also, Magna is not contractually obligated to be available to provide any emergency power demands if called upon. Therefore, the annual reporting would not apply to Magna for the year 2015.

EUGENERATOR

DESCRIPTION: A 2,178 kW (2,922 hp) diesel-fueled temporary engine manufactured in 2011 or later.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Turbocharged and low temperature aftercooled

- Magna did not, nor does it intend to, install the equipment of EUGENERATOR. As a matter of fact, Magna has initiated a modification process of PTI No. 42-15 to remove EUGENERATOR from the permit. See Attachment G

FGCOATING

DESCRIPTION: Two (2) coating lines for application of anti-fog and hardcoat coatings to plastic headlight lens and taillight lamps.

Emission Units: EUANTI-FOG, EUHARDCOAT

POLLUTION CONTROL EQUIPMENT: Fabric filters

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario
1. VOC	24.6 tpy	12-month rolling time period as determined at the end of each calendar month

- The total VOC emission rate of 0.10 tons was reported for the period of October, 2015 through February, 2016.

Note: The above reported emission data are not based on a 12-month rolling time period as determined at the end of each calendar month, as Magna did not have a year's worth of data as of yet.

II. MATERIAL LIMITS: NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Magna shall capture all waste materials and shall store them in closed containers. Magna shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.

- Empty aerosol cans are punctured, collected in waste bins and disposed of properly by an outside contractor. Cans residuals are collected in containers, manifested and disposed of properly by a contractor.

2. Magna shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.

- In compliance, Magna disposes all spent filters properly.

3. Magna shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. Magna shall keep containers covered at all times except when operator access is necessary.

- Empty aerosol cans are punctured, collected in waste bins and disposed of properly by an outside contractor. Cans residuals are collected in containers, manifested and disposed of properly by a contractor.

IV. DESIGN/EQUIPMENT PARAMETERS

1. Magna shall not operate FGCOATING unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner.

- 16" – 20" 3M high efficiency fabric filters are installed.

2. Magna shall equip and maintain FGCOATING with robotic HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, Magna shall keep test caps available for pressure testing.

- Magna plans to do cans pressure testing during summer, 2016.

V. TESTING/SAMPLING

1. Magna shall determine the VOC content, water content and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the

Method 24 and the formulation values should differ, Magna shall use the Method 24 results to determine compliance.

VI. MONITORING/RECORDKEEPING

1. Magna shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

2. Magna shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

3. Magna shall keep the following information on a daily basis for FGCOATING:

   a. Gallons (with water) of each coating, reducer, and purge and clean-up solvent used and reclaimed.
   b. VOC content (with water) of each coating, reducer, and purge and clean-up solvent as applied.
   c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
   d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   Magna shall keep the records in a format acceptable to the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

VII. REPORTING

Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, Magna or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGCOATING.

FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario
1. Each Individual HAP	< 9.0 tpy	12-month rolling time period as determined at the end of each calendar month
2. Aggregate HAPs	< 22.5 tpy	12-month rolling time period as determined at the end of each calendar month
3. VOC	< 30 tpy	12-month rolling time period as determined at the end of each calendar month

- For the period of October, 2015 through February, 2016, Attachments F.1 & F.2 show:

- The total single HAP (Methanol) emission rate of 0.074 tons

- The total aggregate HAPs emission rate of 0.079 tons

- The total VOC emission rate of 0.0.2117 tons

Note: The above reported emission data are not based on a 12-month rolling time period as determined at the end of each calendar month, as Magna did not have a year's worth of data as of yet.

V. TESTING/SAMPLING

1. Magna shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, Magna shall verify the manufacturer's HAP formulation data using EPA Test Method 311.

2. Magna shall determine the VOC content, water content, and density of any coating, as applied and as received using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, Magna may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, Magna shall use the Method 24 results to determine compliance.

- Magna uses manufacturer's formulation data for HAPs and VOC contents in the emissions calculations. - Magna requested to opt out of the Method 24 testing for the VOC content via a letter to the AQD. See Attachment K.

VI. MONITORING/RECORDKEEPING

1. Magna shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

2. Magna shall maintain a current listing from the manufacturer of the chemical composition of each material including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

- All pertinent Material Safety Data Sheets are included herewith

3. Magna shall keep the following information on a monthly basis for FGFACILITY:

   a. Gallons or pounds of each HAP containing material used.
   b. Where applicable, gallons or pounds of each HAP containing material reclaimed.
   c. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
   d. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
   e. Individual and aggregate HAP emission calculations determining the cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month.

   Magna shall keep the records using mass balance, or an alternative method and format acceptable to the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

- Above data are available in pertinent Material Safety Data Sheets, which are included herewith

4. Magna shall keep the following information on a daily basis for FGFACILITY:

   a. Gallons or pounds of each VOC containing coating used.
   b. VOC content, in pounds per gallon or pounds per pound, of each VOC containing coating used.

c. VOC emission calculations determining the monthly emission rate in tons per calendar month.
d. VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month from the coating of plastic parts.

Magna shall keep the records in a format acceptable to the AQD District Supervisor. Magna shall keep all records on file and make them available to the Department upon request.

- Above data are available in pertinent Material Safety Data Sheets, which are included herewith

MAERS REPORT REVIEW:

As an opt-out source, Magna is subject to the MAERS requirements. Magna will submit their first MAERS report for the year 2015 in April, 2016.

CONCLUSION:

Magna appears to be operating in compliance with the federal and state regulations and the conditions of PTI No. 42-15.

NAME Sam Amer DATE 4/21/16 SUPERVISOR JK