

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

N178172315

FACILITY: Magna Mirrors Corporation		SRN / ID: N1781
LOCATION: 3575 128th Avenue, HOLLAND		DISTRICT: Grand Rapids
CITY: HOLLAND		COUNTY: OTTAWA
CONTACT: Andrew Dinsmore , Environmental Engineer		ACTIVITY DATE: 05/14/2024
STAFF: Chris Robinson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY '24 inspection to determine the facility's compliance status with applicable air quality rules and regulations including PTI 188-04G and 184-19.		
RESOLVED COMPLAINTS:		

On May 14, 2024, staff Chris Robinson (CR) from Michigan's Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) conducted an unannounced onsite inspection at Magna Mirrors (SRN N1781) located at 3575 128th Avenue in Holland Michigan. The purpose of this inspection was to determine this facility's compliance with applicable state and federal air quality rules and regulations including Permit to Install No. 188-04G and General PTI 184-19. Prior to entry AQD staff surveyed the perimeter of the buildings for odors and visible emissions, none were observed.

AQD staff met Magna Mirrors Environmental Health and Safety (EH&S) Specialist Andrew Dinsmore and later with Magna Engineered Glass's EHS specialist Samantha Philips. The intent of the visit was relayed, and identification provided. The PTI was first discussed followed up by a walkthrough of the facility and then a brief post meeting. Records for the time period of May 1, 2023, through April 30, 2024, were requested and provided.

A) Facility Description

Magna Mirrors (Magna) is an automotive parts supplier that consists of **Magna Mirrors Holland** located at 3401 (South Plant) and 3575 (North Plant) 128th Avenue and **Magna Engineered Glass**. Magna Engineered Glass also consists of two separate buildings (North & South Plants) but share the same address at 3501 John F Donnelly Drive. Magna Mirrors Holland manufactures interior and exterior rearview mirrors with features like auto-dimming and displays. Magna Engineered Glass manufactures glass products such as encapsulated windows.

B) Compliance Evaluation

All four locations are considered one stationary source and operate as a Title V Opt-out source under Permit to Install (PTI) No. 188-04G. Magna Mirrors Holland also operates a burn-off oven covered under General PTI No. 184-19.

1) PTI No. 188-04G

Per a records and file review as well as discussions with Andrew Dinsmore and Samantha Phillips, the facility determines the VOC content of all coatings used as required in Special Condition V.1 of EU-RIMPRIME (FG-PLASTICPARTSCOATING), EU-SILVERLINE, FG-BONDINGPROCESS (plus adhesives), FG-PLASTICPARTSCOATING, and FG-ECMIRRORS by use of Manufacturer's Formulation Data. Approvals to use manufacturer's formulation data were provided by the AQD on December 12, 2012, November 14, 2006, and January 12, 2018.

Waste material is being captured and stored in closed bins throughout the facility as required per SC III.1 and SC III.2 of FG-ECMIRRORS and EU-SILVERLINE. A diagram showing the location of each

emission unit is being maintained as required by FG-BONDINGPROCESS SC III.1, which was provided.

EU-RIMPRIME:

This emission unit is described as being five prime coat spray booths where a glass preparatory coating was applied prior to the molding operation at **Magna Engineered Glass** (north and south). Per email from Samantha Phillips the last of the permitted equipment was removed in 2018. Therefore, this Emission Unit will not be discussed further.

EU-SILVERLINE:

Operation of EU-SILVERLINE ceased operating in September 2023 but since it did operate within the last year records were provided for the months that it operated. EUSILVERLINE was located at the **Magna Mirrors-Holland** north plant and was a flow coating operation that coated panes of glass for the mirrored glass manufacturing process. This was an automated conveyorized line consisting of multiple stages of glass cleaning, application of sensitizer solutions, silver solutions, and two (2) flow coaters (#1 and #2) with associated curing ovens. There were two glass pre-treat areas that utilized an automated spray bar with six spray nozzles to pre-treat the glass. These two application areas were vented externally uncontrolled via a stack. The glass moved through the flow coaters and cure ovens which were controlled via a thermal oxidizer. The thermal oxidizer is still installed but not in use or connected to any processes/equipment.

EU-SILVERLINE was subject to a VOC emission limit of 18.3 tpy and a Cumene emission limit of 3,900 lb./yr., both based on a rolling 12-month time period. Records were provided. The 12-month rolling total emissions for April 2024 was 0.82 tons of VOCs and 2.0 lbs of cumene, which are well below the specified limits.

The PTI specifies (IV.1) that the facility must operate the RTO in a satisfactory manner which includes maintaining a temperature of 1,450°F. Combustion temperature was required to be recorded continuously (SC IV.2) and those records are required to be provided upon request (VI.5). Section VI requires all records to be maintained on file for a period of five (5) years. The facility was unable to locate temperature records for the Thermal Oxidizer, which is a violation of SC IV.2 of the PTI.

EU-MIRSEAMING:

Operation of EU-MIRSEAMING ceased operating in 2023. Parts have been removed making it inoperable and the equipment will be removed from the site in the near future. This emission unit is located at the **Magna Mirrors Holland** north plant. The mirror seaming operation process grinded the exterior edges of the mirrored glass to the appropriate specifications. This process consisted of workstations where an employee ran the edges of a cut mirror onto a belt sander to smooth the edges. Particulate emissions from the sander were controlled by a cartridge filter dust collection system which will also be removed. The only applicable emission limit was for particulate matter (PM) based on testing and proper operation. To demonstrate compliance with this limit the facility maintained a Preventative Maintenance Plan. However, compliance with this plan was not evaluated since this emission unit was no longer operational.

FG-RIMPRESS:

FG-RIMPRESS consisted of the RIM presses (EU-RIMPRESS24-26) used to attach molding to automobile glass windows, all of which were located at the **Magna Engineered Glass** south plant. The remaining units were removed in early 2019.

FG-BONDINGPROCESS:

Flexible Group FG-BONDINGPROCESS is in the **Magna Engineered Glass** north plant and consists of work cells (EU-BONDING1-20 & EU-CLEANUP) which used to attach either a rubber gasket or a plastic component to the windows. Either a primer is applied to the glass surface, or an adhesive is applied to the plastic component.

This Flex Group is subject to a combined VOC/Acetone emission limit of 30.0 tpy and a Phenyl diethanolamine emission limit of 1.8 tpy, both based on a rolling 12-month time period. Based on provided records the maximum 12-month rolling VOC/Acetone emissions were 16.6 tons in May 2023 and the maximum 12-month rolling Phenyl diethanolamine emissions were 0.05 tons also in May 2023. Both are within the permitted limit.

FG-PLASTICPARTSCOATING:

Consists of all plastic parts coating operations located at both the **Magna Engineered Glass**, and **Magna Mirrors Holland** plants (EU-RIMPRESS24-26) which have been removed, EU-RIMPRIME, and EU-BONDING1-20). This Flex Group is subject to a VOC emission limit of 30.0 tpy based on a 12-month rolling time period. Based on provided records the maximum calculated was 18.8 tons in May 2023, which is within the permitted limit. Daily records as required by SC VI.2 are being maintained and are attached.

FG-ECMIRRORS:

Located at the **Magna Mirrors Holland** plants and includes the Electro-chromatic mirror production lines (EU-GLASSCUT, EU-GLASSBEND, EU-WASHER, EU-COATER, EU-VACFILL, EU-INSPECTION), which consist of the following: a pre-clean room where glass cutting, bending, seaming and cleaning takes place; a clean room where additional glass cleaning, vacuum coating, glass mating, vacuum filling and sealing takes place; and a post-clean room where glass cleaning and inspections takes place.

FG-ECMIRRORS is subject to a VOC emission limit of 47.4 tpy and an Acetone emission limit of 11.5 tpy. EU-WASHER only is subject to a VOC emission limit of 20.0 tpy while each washing line in EU-WASHING are subject to a VOC emission limit of 13 tpy. Yearly limits are based on a 12-month rolling time period. Records are summarized below.

FG-ECMIRRORS Max VOC emissions – 29.18 tons (January 2024)

FG-ECMIRRORS Max Acetone emissions – 4.80 tons (May 2023)

EU-WASHER Max VOC emissions – 14.53 tons (May 2023)

EU-WASHER Max individual wash line VOC emissions – 9.28 tons, Washer 1 (May 2023)

VOC emissions appear to be within the limit specified in the permit.

FG-FACILITY:

FG-FACILITY is the Title V Opt-out limiting hazardous air pollution (HAP) emissions to less than 9.0 tpy for any individual HAP and 22.5-tpy for all HAPS combined and VOC emissions to less than 90.0 tpy. Both HAPS and VOC emission limits are annually based on a 12-month rolling time period. Based on data from provided the maximum 12-month rolling total for aggregate HAPs was 5.83 tons for the month of May 2023. The maximum individual HAP was 3.29 tons of toluene for the month of May 2023. The maximum 12 month rolling VOC emissions were 59.89 tons in May 2023. Records are being maintained as required per SC VI.2 and VI.3 and are attached.

2) PTI No. 184-19

This permit covers the facility's burn-off oven. Temperature data for both the main oven and afterburner are being monitored. It was not being operated during the inspection. The permit requires the facility to record the afterburner temperature continuously. Based on notes provided by the facility's consultant, the facility pulled the recorders memory card for download but forgot to reformat it prior to reinstalling it. Since the memory card was full no data has been recorded since May 2022. Which is a violation of Special Conditions IV.4 and VI.1 of the PTI. Since this inspection was initiated the memory card has been re-formatted and staff have been instructed to download it at least annually or more frequently.

Special Condition VI.2 requires at least annual calibrations. Calibration records were provided and are being conducted annually. Per discussions, during the recent inspection this unit is used for burning powder coat off from racks used to hold parts being coated onsite and not for removal of any rubber, plastics, uncured paints, or other materials containing sulfur, or halogens, transformers, wire, or parts coated with lead or rubber, or any waste materials as prohibited in SCs III.1-2 of this permit. Magna Mirrors maintains Safety Data sheets for the powder coatings used onsite.

3) Rule 201 Permitting Exemptions Claimed by the Facility

Emission Unit/Process	Exemption Claimed by Facility	Notes
Glass Cutting	285(2)(I)(vi)	Ceased operations in August 2023
Contour Grinding	290	Ceased operations in November 2023
Blanchard	290	Ceased operations in August 2023
Chuck Room	285(a)	Ceased operations in August 2023
Cold Cleaner	281(2)(h)	Non-agitated and non-heated, uses Zep Dyno 143 cleaner, kept closed when not in use. Instructions posted and surface area is less than 10ft ² .
Die Cast	285(2)(I)(ii)	--
Tumble	290	--
Basket Strip	290	Located in the north plant, this operation cleans the baskets used in the pre-treatment operation, using a solution of potassium hydroxide. It has not been used since December 2023. It is in a standby mode and available if needed but expected to be relocated to a facility out of the State of Michigan within the next 6 months
Powder Coating	287(2)(d)	--

Injection Molding	286(2)(b)	--
* Generator (South Building)	285(2)(g)	See note 1 below
Soda Blaster	285(2)(l)(vi)(B)	--

Note 1: During AQD's 2020 inspection it was determined that this unit was installed on March 23, 2001, and is equipped with a 1.5L/15kw natural gas engine/generator. In order for this unit to be exempt from Rule 201 permitting requirements under Exemption Rule 285(2)(g), the heat input needs to be less than 10 MMBtu/hour. A 293 KW unit would have a heat input of approximately 1MMBtu/hr. Therefore, since this unit is only 15KW, it appears to be exempt per Rule 285(2)(g).

Also, since installation occurred prior to December 2006 and it has not been modified or reconstructed since, it is not subject to the Standards of Performance (NSPS) for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subpart JJJJ. However, since this unit is not located at a residence or commercial/institutional facility and is for emergency use only it is subject to the Area Source requirements under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated under 40 CFR, Part 63, Subpart ZZZZ. Currently, the AQD is not evaluating compliance with this Area Source MACT.

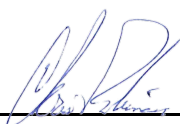
4) Annual Emissions Inventory

The 2023 Emissions for Magna and Engineer Glass combined were reported on time (2/15/2024) and complete. AQD reviewed it on April 12, 2024, and determined it to be sufficient with no revisions required. Reported emissions are summarized below.

Pollutant	Amount
CO	2.49
Pb	0.00001
NOx	2.96
PM10 Primary	0.35
PM2.5 Primary	0.23
SO2	0.02
VOC	53.90
NH3	0.01

Conclusion

Based on inspection observations and records review Magna Mirrors is not operating in compliance with all applicable air quality rules and regulations. Specifically, SC IV.4 and VI.1 of PTI 184-19 for not recording the burn-off oven's secondary chamber's combustion temperature. Failure to maintain the RTO's combustion temperature records for a minimum of five (5) years is a violation of SC IV.2 of PTI 188-04G, however, since EUSLIVERLINE is no longer installed this will not be included in the Violation Notice.

NAME 

DATE 7/2/2024

SUPERVISOR 