

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

U63161195158260

FACILITY: Marada Industries, Inc.dba Cosma Body and Assembly		SRN / ID: U631611951
LOCATION: 5475 Grand River Avenue, New Hudson		DISTRICT: Warren
CITY: New Hudson		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 11/06/2020
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: FY 2021 inspection (on-site) of Marada Industries, Inc., dba Cosma Body and Assembly Michigan ("Cosma"), a subsidiary of Magna International, Inc.		
RESOLVED COMPLAINTS:		

Marada Industries, Inc. (U-63-16-11951)
dba Cosma Body and Assembly Michigan
A subsidiary of Magna International, Inc.
54725 Grand River Avenue
PO: New Hudson (city: Lyon Township), Michigan 48165-8526

Permit-to-Install: Rule 285(2)(i [welding]) exempt process equipment for Miscellaneous Particulate Emission processes with uncontrolled MIG welding exhaust to outside ambient air and with in-plant spot welding exhaust release. **MIG welding** is an arc welding process in which a continuous solid wire electrode is fed through a welding gun and into the weld pool, joining the two base materials together. A shielding gas is also sent through the welding gun and protects the weld pool from contamination. In fact, MIG stands for metal inert gas. The technical name for it is gas metal arc welding (or GMAW). Normally, 75 percent argon & 25 percent carbon dioxide blend (75/25 or C25) is used. **Spot welding** (also known as resistance spot welding) is a resistance welding process. This welding process is used primarily for welding two or more metal sheets together by applying pressure and heat from an electric current to the weld area. It works by contacting copper alloy electrodes to the sheet surfaces, whereby pressure and electric current are applied and heat is generated by the passage of current through resistive materials such as low carbon steels.

On November 06, 2020, I conducted a level-2 self-initiated FY 2021 inspection (on-site) of Marada Industries, Inc., dba Cosma Body and Assembly Michigan ("Cosma"), a subsidiary of Magna International, Inc., located at 5475 Grand River Avenue, PO New Hudson (city: Lyon Township), Michigan 48165-8526. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451 and Michigan Department of Environment Great Lakes and Energy, Air Quality Division (EGLE-AQD) administrative rules, especially Rule 285.

During the inspection, Mr. Todd Kalakay (Phone: NA; Fax: NA; Cell: 810-922-5981; E-mail: Todd.Kalakay@Magna.com), Facilities Manager, and Mr. Charles Ball (Phone: 248-6173262; Fax: NA; Cell: 734-255-0594; E-mail: Charles.Ball@Magna.com), Facilities Manager, Environmental, Health & Safety Manager, assisted me.

About 2017, Ms. Vanessa Peake (Phone: 248-617-3262; Fax: NA; Cell: NA; E-mail: Vanessa.Peake@Magna.com), Health, Safety, Ergonomics, Environmental Coordinator,

Ms. Flavia De Veny (Phone: 248-617-3202; Fax: NA; Cell: 248-515-1611; E-mail: Flavia.DeVeny@Magna.com), Asst. General Manager, Ms. Shelly Thomson (Phone: 248-617-3260; Fax: NA; Cell: 586-405-8393; E-mail: Shelly.Thomson@Magna.com), HR Manager, Mr. Clifford Wright (Phone: NA; Fax: NA; Cell: 517-414-5349; E-mail: Clifford.Wright@Magna.com), Production Manager, Mr. Brad Crawford (Phone: NA; Fax: NA; Cell: 519-551-0634; E-mail: Brad.Crawford@Magna), Maintenance Production, Control Engineering, and Facilities Manager, separated.

The inspection was conducted as a result of building a brand-new large building with stacks (2016).

Magna broke ground for the brand-new building about September 2015 and moved in about July 1016. About June 8, 2015, State of Michigan (Michigan Strategic Fund (MSF)) approved \$1,600,000.00 for Marada Industries, Inc. dba Cosma Body Assembly Michigan (a subsidiary of Magna International, Inc.) to build 150,000-square-foot manufacturing building on 32-acres parcel of vacant land. In its application for MSF funds, Magna estimated to invest 56 million dollars. Also, Magna estimated to create 250 jobs. Becknell Industrial, a privately held national real estate development firm focused exclusively on industrial buildings, developed / built the property in 2016.

Cosma's manufacturing involves mostly welding. Cosma makes main body structural components for automobiles: frame rails, wheelhouse assemblies, tie-bars, cross members, etc. Seven (7) assembly lines are present. During previous inspection of October 2016, only one (1) of seven (7) lines was doing manufacturing and rest six (6) were being debugged. Now (Nov 2020) all 7 lines are operating. Almost all welding is robotic. .

Predominantly (90%) spot welding is performed. Some MIG / arc welding is performed as well. 17 MIG welding stations are present. While spot welding generates insignificant particulate emissions with neither fume controls nor fume capture devices (ventilation), MIG welding generates fumes that are ducted to outside ambient air via one common manifold. Each MIG welding capture device (17 stations) delivers particulate laden exhaust air to the common manifold. The MIG welding emissions are discharged without particulate control system such as baghouse / cartridge filter.

Each MIG welding station (17 stations: only one was operating and rest 16 stations were being debugged during the previous inspection) exhausts, to outside ambient air, about 1,200 cfm. I suggested that filtering (primary filter and secondary HEPA filter) exhaust air using and recycling filtered air suitable for breathing into the plant may save HVAC costs.

Resistance spot welding: contacting metal surfaces are welded by heat of resistance to electric current.

Metal Inert Gas (MIG) welding: electric arc using consumable wire electrode and shielding gas, which keeps contaminants out.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (i). The welding exemption does not require particulate matter (welding fumes) control. However, fumes control with a combination of regular particulate filter followed by HEPA filter may help save HVAC costs such that comfort air can be recycled into the plant.

Conclusion

The machines are exempt from Rule 336.1201 (Permit-to-Install) per Rule 336.1285. No particulate control. Marada is in compliance with the air quality regulations, especially Rule 285.

NAME *J. S. Marshall*DATE June 1, 2021SUPERVISOR *Joyce*