

N1014
Magna Industries

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

N101462114

FACILITY: MAGNI INDUSTRIES INC		SRN / ID: N1014
LOCATION: 2771 HAMMOND, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Mary Kay Heidtke , EHS Engineer		ACTIVITY DATE: 03/10/2022
STAFF: Jorge Acevedo	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

MICHIGAN DEPARTMENT OF ENVIRONMENT,
GREAT LAKES, AND ENERGY

AIR QUALITY DIVISION

INSPECTION REPORT

COMPANY NAME :Magni Industries

FACILITY ADDRESS :2771 Hammond Street, MI 48209

STATE REGISTRAT. NUMBER :N1014

SIC CODE : 2851

EPA SOURCE CLASS : B

EPA POLLUTANT CLASS : O

LEVEL OF INSPECTION : PCE

DATE OF INSPECTION : 3/10/22

TIME OF INSPECTION :9:00 AM

DATE OF REPORT : 3/25/22

REASON FOR INSPECTION : Scheduled Inspection.

INSPECTED BY : Jorge Acevedo, Maureen Conner

PERSONNEL PRESENT :Mary Kay Heidtke

FACILITY PHONE NUMBER : 313-576-3018

FACILITY FAX NUMBER : 313-576-1990

FACILITY BACKGROUND:

Magni Industries is a manufacturer of industrial coatings. Magni provides the following description from their website (www.themagnigroup.com):

“At these locations, Detroit, Kentucky & Germany, we manufacture Magni's coatings. We take raw materials and manufacture over 100 different coatings to meet customer criteria and surpass industry standards. Continuous inspections assure quality and customer satisfaction. We are also ISO -9001:2008 registered. Our manufacturing plants and research centers are located together in the same buildings which encourages idea sharing and timely resolutions to any challenges.”

The Detroit facility features computer-controlled inventory of both raw and finished goods, computerized weigh-up and measuring systems, high-capacity air handling equipment, and the ability to ship finished product in a variety of bulk containers (400- gallon totes, 55-gallon drums, and 5-gallon pails). It has four 8000-gallon raw material holding tanks, as well as four 3,000-gallon holding tanks for finished goods. Its high-capacity milling equipment is dedicated by type of raw material to avoid process contamination.

The plant is South of Michigan Avenue, North of Vernor Highway, West of Junction Street, and East of Livernois Ave. in Detroit.

INSPECTION NARRATIVE:

On March 10, 2022, I conducted a scheduled inspection of Magni Industries. I was accompanied by Maureen Conner. We arrived in the vicinity of the facility at 8:48 AM. I drove the boundary of the plant. Winds were calm at the time of my visit. It was partly cloudy. I did not detect light odors while doing surveillance. We entered the facility at 9:00AM. We met with Mary Kay Heidtke and she led us to a conference room. We talked about the facility and asked if there had been any changes since the last inspection. Ms. Heidtke explained that in 2019, Magni changed the housing of the weigh up area. With the new design, Magni was able to install new filters which were tested to achieve 99.8% particulate removal efficiency.

Ms. Heidtke explained that Magni runs 1 shift Monday-Friday. She also explained that there were three main processes at the facility. They have a batch process where they weigh up ingredients to

make products that are made to order. The Milling area were pigments are broken down. This process can take several hours. Finally product is transferred into containers.

After the discussion of the facility and update that have taken place since the last inspection, Ms. Heidtke accompanied us through the facility. We started at the weigh up area. Workers receive a batch ticket and properly weigh up the correct amounts of material. The weigh up area is mainly for batch products. Materials are premixed. I looked at the manometer and it read 0.1 inches of water column. Ms. Heidtke explained that the filters are replaced once or twice a month. The materials then go into a 8000 gallon tank but are never filled more than 6000 gallons. Next I observed four above ground tanks, two 4000 gallon and two 3500 gallon tanks. These tanks contain finished product. There are also four below level tanks, two resin tanks and two solvent tanks.

Next we observed the mixer and mills areas. There are six mixers and five mills. Mixers are the 1st stage and makes the mixture homogenous. The mills breaks down the powder and is the final step. Raw materials are pumped into the mills through the bottom. The top is covered when the mill is in operation. At the final milling stage, the coating is tested in the QC lab to make sure that it meets the specification of the customer (viscosity, wt-solids). After the process is complete, the coating is pumped to the desired container, 55gallon drum, 5 gallon drum, or 350 gallon tote. Finished product can also be pumped to four holding tanks. Some coatings may not need milling and some are milled for two hours to break it down. The mixers and mills are cleaned after each use.

We observed transferring of a coating into a tote using gravity. Ms. Heidtke explained that they are looking at this process to minimize the possibility of spills. She explained that to meet the ISO 14001 standards, they are entertaining some ideas and will pursue a solution later in the year. We then went into the raw materials and finished products warehouse. Raw materials are brought in, stored, and the documents are checked for accounting purposes. The finished

We went back to the lobby. Ms. Heidtke said that she would email me the records. We left the facility at 11:30AM. Ms. Heidtke emailed the records on March 18.

APPLICABLE RULES/PERMIT CONDITIONS:

Permit 181-06C

Issued May 30, 2012

The following conditions apply to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

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POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	0.02 lb VOC per lb solvent used	Test method	GC 13	R 336.1901
Compliance assumed. This is the AP-42 emission factor. Barring actual testing data, it is assumed this is the true solvent loss. .				
2. VOC	32.1 pph	Test method	GC 13	R 336.1901
Compliance assumed. Testing would be required to determine compliance.				
3. VOC	44.6 tpy	12-month rolling time period as determined at the end of each calendar month.	SC VI.3	R 336.1702(a), R 336.1901

Pollutant	Limit	Time Period/ Operating Scenario	Testing / Monitoring Method	Underlying Applicable Requirements
Compliance- Emissions did not exceed 44.6 tpy VOC. Recordkeeping was provided and was placed in the facility file. Highest total was 42.78 in July 2021.				
4. PM	0.10 lbs per 1000 lbs of exhaust gas	Test method	GC 13	R 336.1331
Compliance assumed. Testing would be required to determine compliance. Observation of fabric filters and baghouse do not indicate any excess particulate emissions.				
5. Individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month.	SC VI.3	R 336.1205(3)
Compliance- Emissions did not exceed 8.9 tpy for a single HAP. Recordkeeping was provided and was placed in the facility file.				
6. Aggregate HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month.	SC VI.3	R 336.1205(3)
Compliance- Emissions did not exceed 22.4 tpy for aggregate HAPs. Recordkeeping was provided and was placed in the facility file.				

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Solvent	4,550 gallons per day	Daily	FGFACILITY	SC VI.1, VI.2	R 336.1901
Compliance. Records indicate that the daily usage limit was not exceeded.					
2. Solvent	490,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, VI.2	R 336.1901
Compliance. Records indicate that the yearly limit was not exceeded. Highest amount was 347,000 in July 2021.					
3. Solvent	9.1 lb VOC per gallon	Instantaneous	FGFACILITY	GC 13, SC VI.3	R 336.1901
Compliance. The solvent that is used has a VOC content of 9.05 lbs/Gallon. It is at the permit limit. Magni says that this is their highest VOC containing solvent.					
4. Resin	310,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, VI.2	R 336.1901
Compliance- Records indicate that the Resin limit was not exceeded. Highest amount was 71,000 in February 2020					
5. Solvent (Bulk storage tanks)	300,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, VI.2	R 336.1901
Compliance- Records indicate that the solvent limit was not exceeded. Highest amount was 94,000 in September 2021					

6. The permittee shall not produce more than 6,500 gallons of paint per day. (R 336.1205, R 336.1225, R 336.1702, R 336.1901)

Compliance- Records indicate that the production limit was not exceeded.

7. The permittee shall not produce more than 750,000 gallons of paint per 12-month rolling time period as determined at the end of each calendar month. (R 336.1205, R 336.1225, R 336.1702, R 336.1901)

Compliance. Records indicate that the yearly production limit was not exceeded.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the paint manufacturing equipment at FGFACILITY for more than 6,000 hours per 12-month rolling time period as determined at the end of each calendar month. (R 336.1205, R 336.1225, R 336.1702, R 336.1901)

Compliance- Records indicate that the operation limit was not exceeded.

2. The permittee shall not operate FGFACILITY unless all provisions of Rule 630 are met. (R 336.1630, R 336.1702 (a) and (d))

In compliance. No mixers, mills, and tanks were observed uncovered during operation. Cleaning solvent is stored closed containers. I did not observe cleaning of the mills at the time of inspection.

3. The permittee shall handle all VOC containing materials, including finished products, resins, and solvents, in a manner to minimize the generation of fugitive emissions. The permittee shall keep mixers, mills, and containers covered at all times except when operator access is necessary. (R 336.1225, R 336.1702(a), R 336.1901)

In compliance. No mixers, mills, and tanks were observed uncovered during operation.

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU00003 unless the fabric filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining and operating the unit in accordance with manufacturer's recommendations. (R 336.1301, R 336.1331, R 336.1901, R 336.1910)

In compliance. Fabric Filters are maintained properly. I did not see evidence of poor operation of the fabric filter at the time of my inspection.

2. The permittee shall not operate the FGFACILITY storage tanks unless the corresponding pressure-vacuum vent, vapor balance system, and submerged fill pipe are installed, maintained, and operated in a satisfactory manner. (R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)

Compliance- The operational status of the exhaust system is checked every operating day and recorded.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. N/A

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall keep, in a satisfactory manner, daily records of the hours of operation, type and amount of raw materials used, and amount of paint produced for FGFACILITY. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1225, R 336.1702(a), R 336.1901)

Compliance- Records were kept.

2. The permittee shall keep, in a satisfactory manner, records of the raw materials in each FGFACILITY storage tank. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1225, R 336.1702(a), R 336.1901)

Compliance- Records were kept.

3. The permittee shall calculate the VOC, individual HAP, and aggregate HAPs emission rates from FGFACILITY monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901)

Compliance- Calculations were done and provided to AQD staff.

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEF1	32	46	R 336.1901
2. SVEF2	32	46	R 336.1901
3. SVEF3	18	46	R 336.1901
4. SVEF4	18	46	R 336.1901
5. SVEF5	14	46	R 336.1901
6. SVEF14	22	28	R 336.1901
7. SVEF15	24	28	R 336.1901

IN COMPLIANCE- Based on my observations, the stacks appeared to be in compliance, but no measurements were taken.

IX. OTHER REQUIREMENTS

NA

EXEMPT EQUIPMENT

The emergency generator which was installed in 2015 is manufactured by MTU and model type 12V1699G80S. It is run on diesel fuel. At a 100% load fuel consumption is 40.0 gallons/hr, which equates to 5.2 MMBTU/hr heat input capacity. It is exempt under R336.1285 (g).

The research spray booths are exempt from permitting from under Rule 287c. Records are kept by the spray booth and organized by Ms. Heidtke.

The pilot resin product is exempt under Rule 290 and records are kept by Ms. Heidtke.

COMPLAINT/COMPLIANCE HISTORY:

There have been no complaints nor violations registered against Magni Industries.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING LOVs

None

OPERATING SCHEDULE/PRODUCTION RATE:

Magni Industries operates 10-12 hours a day, five days a week.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

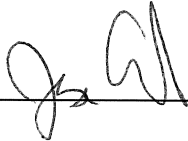
NA- Magni has paved lots.

MAERS REPORT REVIEW

Pollutant	2021 Emissions(TPY)
PM	7.34
VOC	37.43

FINAL COMPLIANCE DETERMINATION:

The facility appears to be in compliance with applicable regulations at the time of the inspection.

NAME 

DATE 4-29-22

SUPERVISOR April L. Wendling
5-3-2022