

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

N663064443

FACILITY: Unified Industries, Inc, Brighton Plant		SRN / ID: N6630
LOCATION: 740 Advance Street, BRIGHTON		DISTRICT: Lansing
CITY: BRIGHTON		COUNTY: LIVINGSTON
CONTACT: Michael LaPorte , Operations Manager		ACTIVITY DATE: 09/07/2022
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced inspection of manufacturer of cranes, hoists, and fall prevention systems, operating since 2019 in a plant once owned by Toyada Gosei USA Fluid Systems Corporation.		
RESOLVED COMPLAINTS:		

On 9/7/2022, the Michigan Department of Environment, Great lakes, and Energy (EGLE), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of the Unified Industries, inc. brighton plant.

Scheduled does not mean that an inspection has been pre-arranged, but rather an inspection which was committed to at the start of the fiscal year, as part of AQD's Compliance Monitoring Strategy with the U.S. Environmental Protection Agency.

Environmental contacts:

- Michael LaPorte, Operations Manager; 517-546-3220; michael.laporte@cmworks.com
- Dirk Streeter, Maintenance Manager; 517-546-3220; dirk.streeter@cmworks.com

AQD contact:

- Dan McGeen (myself), inspector; 517-648-7547; mcgeend@michigan.gov

Emission units*:

- Two water-based parts washers, MAPC Rules 281(2)(h), 285(2)(l)(iii), or 385(2)(r)(iv)
- Welding unit(s); MAPC Rule 285(2)(i)
- Metal machining processes; MAPC Rule 285(2)(l)(vi)(B)
- 53 foot paint booth; MAPC Rule 287(2)(c)

*An *emission unit* is any part of a stationary source which emits or has the potential to emit an air contaminant.

Regulatory overview:

Unified Industries, Inc. is classified as a minor source in the Michigan Air Compliance Enforcement System (MACES) database, although a particular pollutant is not specified. A *major source* has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. *Criteria pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns.

This facility is considered a minor or *area source* for Hazardous Air Pollutants (HAPs), because it is not known to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

A number of the Michigan Air Pollution Control (MAPC) Rules potentially apply. These rules exempt processes which meet the specified criteria from the requirement of MAPC Rule 201 to obtain a permit to install, aka an air use permit. The relevant exemption rules are:

- MAPC Rule 281(2)(h), exempting a cold cleaner which has an air vapor interface of less than 10 square feet.
- MAPC Rule 285(2)(l)(iii), exempting equipment for surface preparation of metals by an aqueous solution, except for an acidic solution.
- MAPC Rule 285(2)(r)(iv) exempts equipment for cleaning metals, provided the emissions are released only into the general, in-plant environment.
- MAPC Rule 285(2)(i) exempts brazing, soldering, welding, and plasma coating equipment.
- MAPC Rule 285(2)(l)(vi)(B) exempts, among other things, metal and wood machining processes which exhaust only into the general, in-plant environment.

Fee status:

This facility is not considered fee-subject, as it is not known to be a major source for criteria air pollutants, or for HAPs, nor is it subject to a federal New Source Performance Standard or a Maximum Achievable Control technology standard.

This facility is not required to report annual emissions through the Michigan Air Emission Reporting System (MAERS).

Location:

The facility is located at the west end of a dead end street. A lake is roughly 100 to the west, a rail line is 300 feet to the southwest, residences start about 425 feet to the southwest, a school is 100 feet to the north, an industry is less than 100 feet to the east, and other industries are 125 feet to the south, and go east from there.

History:

During this inspection, I learned that Unified Industries, Inc. has been at this location since 2019. AQD has not visited this location since 1/29/2014, when I inspected the previous plant operating here, Toyada Gosei Fluid Systems USA Corporation. No instances of noncompliance were found in 2014.

Past complaints:

None.

Past violations:

None.

Safety apparel required:

I wore steel-toed boots, safety glasses with side shields, a hard hat, a high visibility safety vest, and had hearing protection available, as a matter of general practice. Additionally, I wore a disposable paper mask, out of personal preference, during the ongoing COVID pandemic.

Odor evaluation:

No odors were detected as I approached from the east, on Advance Street. Winds were out of the north, but it was not possible to get directly south of the plant as I approached, due to other industries located there. No visible emissions were seen from the facility roofline as I approached.

Weather conditions were partly sunny and 66 degrees F, with winds out of the north at 5-10 miles per hour.

Arrival:

I arrived at 10:41 AM, unannounced. No odors could be detected in the plant parking lot, immediately east of the facility. No visible emissions could be seen from the roofline, or from horizontal vents on the south side of the building.

I noted that the sign for the plant identified it as Unified Industries, inc., a Columbus McKinnon Company, rather than the name of the owner/operator in 2014, which had been Toyada Gosei Fluid Systems USA Corporation.

In the lobby, I tried calling different numbers from the phone, until I was able to reach someone. While waiting for plant personnel to arrive, I saw brochures which identified this company as a manufacturer of:

- gantry cranes
- work station cranes
- bridge crane systems
- wire rope hoists
- Uni-Life Track complete fall protection systems, and
- electric chain hoists

I soon met with Operations Manager Michael LaPorte, and with Maintenance Manager Dirk Streeter. I explained that it had been since 2014 since AQD had conducted an inspection here, and as one of our inspection goals, AQD staff try to inspect facilities which have not been visited recently. They accompanied me during the inspection.

I was informed that Unified Industries, Inc. has been here since 2019. They are in the business of making cranes and hoists.

Inspection:

The plant was operating. They have a machine shop, a welding and fabrication area, a 53 foot paint booth, and an assembly area, I was informed. Individual processes and exemptions are discussed, below.

Two water-based parts washers, MAPC Rules 281(2)(h), 285(2)(l)(iii), or 385(2)(r)(iv):

For the two small, water-based parts washers, which are classified under the MAPC Rules as “cold cleaners” because they do not heat solvent to the boiling point, any of the following exemptions are applicable:

MAPC Rule 281(2)(h), which exempts:

(h) Cold cleaners that have an air/vapor interface of not more than 10 square feet.

MAPC Rule 285(2)(l)(iii), which exempts:

(iii) Equipment for surface preparation of metals by use of aqueous solutions, except for acid solutions.

MAPC Rule 285(2)(r)(iv), which exempts:

(r) Equipment used for any of the following metal treatment processes if the process emissions are only released into the general in-plant environment:

(i) Surface treatment.

(ii) Pickling.

(iii) Acid dripping.

(iv) Cleaning. (Emphasis added.)

The two cold cleaners are Safety-Kleen parts washers. Both were small units. I estimated the first to have surface area of about 2 by 3 and 1/2 feet, so surface area would likely be less than 10 square feet.

The second parts washers is next to the 53 foot paint booth, and is used for cleaning paint spray gun tips, as I understand it. The lid was open on this second unit, so I explained the importance of keepign the lid closed, to prevent solvent loss. Keeping the lid closed when not in use is also a requirement of AQD's rules for existing and new cold cleaners. AQD will send orange cold cleaner stickers to the facility for posting on or near the units as a reminder to operators of steps to follow to prevent solvent evaporation needlessly.

Welding unit(s); MAPC Rule 285(2)(i):

For the welding unit or units, MAPC Rule 285(2)(i) exempts the following:

(i) Brazing, soldering, welding, or plasma coating equipment.

There was a small welding area, which was not operating, at the time of the inspection. For welding aluminum, there is a Torit cartridge filter to provide particulate control, I was shown.

Machining processes; MAPC Rule 285(2)(l)(vi)(B):

For the various metal and wood machining processes which exhaust indoors, including the water jet machine, MAPC Rule 285(2)(l)(vi)(B) exempts the following:

(l) The following equipment and any exhaust system or collector exclusively serving the equipment:

(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper board, wood, wood products, stone, glass, fiberglass, or fabric which meets any of the following:

(A) Equipment used on a nonproduction basis.

(B) Equipment that has emissions that are released only

into the general in-plant environment. (Emphasis added.)

(C) Equipment that has externally vented emissions controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner.

They receive extruded steel and aluminum beams and channels at the west end of the plant. These are cut, drilled, and painted. I was informed that not as much fabrication, which involves welding, is done at this site.

Among their machining processes as a water jet, for cutting steel plates. They also had a band saw, grinder, boring mills, and jig mills. A hole punch is used to create openings in steel beams. Their machining processes all exhausted to the general, in-plant atmosphere.

Tailings from the rails they machine for lift systems and fall prevention go into a gondola at the end of the day. Aluminum and steel are later separated, for recycling.

I observed a wood saw which was served by its own bagfilter, and set to exhaust into the general, in-plant environment. This unit was not operating, at the moment.

53 foot paint booth; MAPC Rule 287(2)(c):

For the 53 foot paint booth, MAPC Rule 287(2)(c) exempts the following:

(c) A surface coating line if all of the following conditions are met:

- (i) The coating use rate is not more than 200 gallons, as applied, minus water, per month.
- (ii) Any exhaust system that serves only coating spray equipment is supplied with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.
- (iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the department upon request.

I was informed that most of the paint they use here is water-alkali-based. For water-based paint, MAPC Rule 287(2)(c) allows for water content to be extracted, i.e. 400 gallons of applied coatings with a 50% water content would be 200 gallons, when the water had been subtracted. I was informed that they are keeping coating usage records. My notes do not indicate an estimated amount, but it is my understanding that their coating use is well below the 200 gallons minus water allowed per month.

The paint booth had particulate filters, which, I was informed, are changed out about once per month. The filters appeared to be in good shape. A manometer is used to read pressure drop across the booth. It currently read 0.25-0.26 inches water column (w.c.). I was informed that they change the filters when pressure drop reaches a level marked by a red arrow. To me, the red arrow looked to be pointing at the mark for 0.40 or 0.45 inches, w.c. The booth was not in use at this time.

Miscellaneous:

The assembly activities do not appear to require a permit to install.

Housekeeping at the site was done to a high quality. Drums of non-hazardous waste, paint waste, and water waste (such as floor cleaning wash water) were all sealed, and a spill kit was nearby, if needed. I was informed that they contract Safety-Kleen to remove these wastes from the site.

I left the site at 11:05 AM.

Post-inspection follow up:

On 9/8/2022, I emailed M. LaPorte and D. Streeter with a link to the online version of the *Air Permit to Install Handbook*, as well as a list of the specific exemptions which were applicable to the processes seen during the inspection. This included exemptions for water-based parts washers or cold cleaners, welding, metal machining processes, and a surface coating line (the 53 foot paint booth).

Conclusion:

There were no instances of noncompliance. The facility was neat and clean, with a high standard of housekeeping in all areas observed.

NAME 

DATE 2/5/2023

SUPERVISOR 