

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

N571659438

FACILITY: Excel Pattern and Tool		SRN / ID: N5716
LOCATION: 1655 INDUSTRIAL DR, OWOSSO		DISTRICT: Lansing
CITY: OWOSSO		COUNTY: SHIAWASSEE
CONTACT: Deborah Mahan , Office Manager		ACTIVITY DATE: 05/25/2021
STAFF: Samantha Davis	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Announced, scheduled inspection for compliance with PTI No. 191-95C as part of an FCE.		
RESOLVED COMPLAINTS:		

Inspection Report

N5716- Excel Pattern and Tool

1655 Industrial Drive

Owosso, MI 48867

Inspection Date:

5/25/21

Facility Contacts:Adam Fenton, owner, 248-318-2854, afenton@greatlakescomposite.com**MDEQ AQD Personnel:**Samantha Davis, 517-282-1373, daviss46@michigan.gov**Facility Description:**

Excel Pattern and Tool is located on the south east side of Owosso on Industrial Drive between McMillan Road and Aiken Road in an industrial park area.

From the front of the building, there are 4 stacks visible with some having rain caps installed.

Excel Pattern and Tool does Resin Transfer Molding (RTM) of reinforced fiberglass plastic.

The facility manufactures semi-truck air deflectors, containers for weather testing equipment, certain Harley Davison faring pieces, exhaust fan shrouds for agricultural animal buildings, and other custom jobs. There are approx. 10 fulltime employees between office and plant that work Monday through Friday 6am-4:30pm and Saturday 6am-12pm. It takes 6-8 weeks to finish a mold.

Permit History:

191-95C, issued 12/15/98: to modify an existing three stage fiberglass reinforced plastic (FRP) fabrication process; adding three additional resin transfer mold (RTM) machines.

Updated Permitted Emission Units:

One (1) gelcoat spray booth equipped with dry filters, stack 1 in permit evaluation

Seven (7) RTM machines discharged in plant, no external stack / vent in permit evaluation

Two (2) fiberglass grinding booths, identical individual stacks numbered 2 and 3 in permit evaluation

Applicable Regulations:

- 1) 191-95C as detailed above
- 2) R336.1287(c) for a paint booth
- 3) R336.1285(I)(vi) for a water jet cutting tool which is internally vented per 1/26/15 inspection, pre 12/20/16 rule changes applies
- 4) R336.1291 for EUWHEELS
- 5) R336.1291 for Curing oven

Inspection Summary

I arrived at approx. 10:08am and checked into the front office. This inspection was announced due to COVID-19. While approaching the business and in the parking lot, I did not observe any VE's or detect any odors.

I met Adam Fenton (owner), and Jessica Black (consultant with Fishbeck. We went into a conference room and discussed records and any facility changes prior to walking the facility.

In January of 2020 there was a change in ownership. This facility does tooling only. They make the molds and send to other facilities for production.

Upon entering the manufacturing portion of the facility, styrene odor was evident.

There is a new Emission Unit (EU) known as EUWHEELS, which is essentially a paint booth. This process is described in a Fishbeck exemption demonstration. "In addition to building molds, EPT provides resin coating services for a local customer who makes parts for large industrial fans and air scrubber equipment. This emission unit is referred to by the facility as EUWHEELS. It is projected that EPT can manufacture a maximum of 500 batches per year in this EUWHEELS emission unit, which allows one batch in the morning and one in the afternoon. Batches are limited because of the size of the booth and because the resin used must be mixed onsite. A typical batch composition was used to estimate emissions from the mixing and the open molding operation".

The facility also installed a Jensen 1 MMBtu/hr natural-gas fired curing oven in January 2020. It has not been used yet, but may be used in the future if a specialty gel coat is used.

To estimate emissions, Fishbeck used 500 batches as the maximum batches per year for EUWHEELS. The 1 MMBtu/hr oven was assumed to run 8,760 hours per year and to emit 10% of the permitted styrene from the facility.

It is estimated that EUWHEELS will emit 0.17 tpy of VOCs and 0.03 tpy PM.

For HAPs it is estimated that EUWHEELS will emit 0.68 tpy of VOC.

For the curing oven it is estimated that the max styrene emission rate would be 0.9tpy

FG-RTM, which consists of six RTM machines have been removed.

191-95C: EU-GELCOAT, FG-RTM, FG-GRINDING, and FG-FACILITY

The total volatile organic compound (VOC) emission rate (including styrene) from the three stage fiberglass reinforced plastic (FRP) fabrication process, hereinafter "FRP fabrication process", shall not exceed 10.6 pounds per hour nor 13.65 tons per year, based on a 12-month rolling time period as determined at the end of each calendar month.

RESULT: Compliance- the total styrene emissions equated to 0.75 tons for rolling 12-month from January 2020 through April 2021

The acetone emission rate from the use of purge and cleanup solvents shall not exceed 17.5 pounds per hour nor 35.1 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

RESULT: Compliance- *these records were reviewed and are well below the limits, the highest month being at 3.83 tpy.*

The total styrene emission rate from the gelcoat spray booth shall not exceed 7.8 pounds per hour nor 9.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

RESULT: Compliance- *since the RTM machines have been removed the 12-month rolling emissions are well below the limit. The highest month recorded was at 0.75 tpy.*

The hazardous air pollutant (HAP) emissions, as defined pursuant to Section 112(b) of the Clean Air Act, shall be less than 9.0 tons per year for any individual HAP and 13.65 tons per year for any combination of HAPs at this stationary source. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.

RESULT: Compliance- *12-month rolling of aggregate HAPs I 0.77 tpy and individual HAPs is 0.75 tpy.*

Applicant shall not operate the gelcoat spray booth unless all exhaust filters are in place and operating properly.

RESULT: Compliance- *the booths were not operating during the inspection, though filters were in place as appropriate for PM capture.*

Applicant shall not operate either grinding booth unless their respective exhaust filters are in place and operating properly.

RESULT: Compliance- *the booths were not operating during the inspection, though filters were in place as appropriate for PM capture.*

The applicant shall only operate the seven RTM machines at room temperature. They shall not be heated.

RESULT: Compliance- *RTM machines have been removed.*

EU-PAINTBOOTH

R336.1287(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.

RESULT- Compliance- *records indicate March 2021 had the highest usage rate at 17.10 gal/month*

(ii) Any exhaust system that serves only coating spray equipment is supplied with a properly installed and operating particulate control system.

Compliance- *the booths were not operating during the inspection, though filters were in place as appropriate for PM capture.*

(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.

RESULT: Compliance- *records are being maintained as required.*

FG-FINISHING

.RESULT: *Water jet cutting tool has been removed.*

EUWHEELS

Paint booth operating under Exemption Rule 291. Demonstration calculations performed by Fishbeck were provided to me can be found in content manager. This was not operating during my visit. I was given emission records for January 2020-April 2021. Highest month was March 2020 with 154 lbs of VOC emissions for the month; 0.03 tpy styrene.

CURING OVEN

Installed January 2020. Has not been operated. Will operate in the future under Exemption Rule 291. Demonstration calculations performed by Fishbeck were provided to me can be found in content manager.

Based on my inspection, it appears that the Excel Pattern and Tool, with corrections made during the inspection, is in compliance with state of Michigan air quality rules and PTI 191-95C.

NAME *Samantha Davis*DATE 9/27/21SUPERVISOR *B.M.*