

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
**ACTIVITY REPORT: Scheduled Inspection**

N798254851

<b>FACILITY:</b> LEADING EDGE FIBERGLASS POOL		<b>SRN / ID:</b> N7982
<b>LOCATION:</b> 3090 W COOK RD, GRAND BLANC		<b>DISTRICT:</b> Lansing
<b>CITY:</b> GRAND BLANC		<b>COUNTY:</b> GENESEE
<b>CONTACT:</b> Scott Hoover , President		<b>ACTIVITY DATE:</b> 07/20/2020
<b>STAFF:</b> Julie Brunner	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Scheduled Inspection to determine compliance with PTI 53-08B		
<b>RESOLVED COMPLAINTS:</b>		

On July 20, 2020, I conducted a scheduled inspection of Leading Edge Fiberglass Pools (N7982) in Grand Blanc. The last inspection of this facility was on July 11, 2016.

Arrived: 9:25 AM

Weather: 73°F, UV Index 2, and wind WNW 9 MPH

Departed: 10:45 AM

Contacts:

Mr. Scott Hoover, President, 877-450-7665, [midwestpoolsinc@gmail.com](mailto:midwestpoolsinc@gmail.com),  
[Shoover@midwestpools.com](mailto:Shoover@midwestpools.com)

Facility Description and Regulatory Overview:

Leading Edge Fiberglass Pools (established 2008) is a subsidiary of Midwest Pools. Both companies are at the same geographic site located almost equal distance between Flint, Grand Blanc, and Fenton. The location is adjacent to U.S. 23 approximately ½ mile west of Case Lake. Citizens Disposal, Inc., a municipal waste landfill is located northeast of the facility. The area is rural and mostly agricultural with some recreational, commercial, and residential mixed in.

Leading Edge Fiberglass Pools is a minor source with a potential to emit of less than 250 tons per year (tpy) of any regulated air contaminant. The facility is considered a synthetic minor source for emissions of hazardous air pollutants (HAP) with opt-out limits of less than 9.0 tpy of any single HAP, and 22.5 tpy of aggregate HAPs. With these restrictions, the facility has opted out of the Title V - Renewable Operating Permit (ROP) Program and is not subject to 40 CFR 63, Subpart WWWW Reinforced Plastic Composites Production. Styrene and methyl methacrylate (MMA) are the main components, and are the HAPs used in fiberglass lay-up processes.

Leading Edge Fiberglass Pools has one active Permit to Install (PTI) No. 53-08B issued August 31, 2016. (An PTI application to increase the emission limit for acetone on PTI 53-08A was submitted after the last inspection.)

The following emission units (EU) and flexible groups (FG) are on the PTI –

EU/FG ID	Emission Unit Description (Process Equipment & Control Devices)
EUBAY1	One dry filter spray booth (bay) and atomized applicator(s) for application of resin, gelcoat, catalyst material(s), mold release, mold cleaner (other than acetone), wax, additives, etc.
EUBAY2	One dry filter spray booth (bay) and atomized applicator(s) for application of resin, gelcoat, catalyst material(s), mold release, mold cleaner (other than acetone), wax, additives, etc.

EU/FG ID	Emission Unit Description (Process Equipment & Control Devices)
EUCLEANUP	Miscellaneous cleanup activities using acetone.
FGFIBERGLASS	Fiberglass pooling manufacturing process with spray application of resin(s), gelcoat(s), catalyst material (s), and usage of mold release, mold cleaner (other than acetone), wax, and additives. Also, includes miscellaneous cleanup activities using acetone.
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

MAERS:

The facility reports to MAERS. The following emissions were reported for 2019:

VOC – 7.97 tpy

Styrene – 5.88 tpy

Acetone – 2.56 tpy

Inspection:

I detected a faint odor to the west of the spray booth/bay from the parking lot of the facility but none off-site. There were no visible emissions from the stacks that could be viewed from the parking lot.

A pre-inspection meeting was conducted with Mr. Scott Hoover in the parking lot. The facility operations were discussed. They were shut down for a couple of months due to COVID and are very busy trying to fill orders for pools. The facility is still operating one shift per day, but Scott has run two (2) shifts per day in the past. They are currently producing 2 to 3 pools per week. The main constraint is labor, not lack of business. A facility tour was then taken.

Fiberglass Lay-Up (PTI 53-08B):

Leading Edge Fiberglass Pools produces pools using a fiberglass lay-up process. Gelcoats and resins mixed with catalysts are sprayed and manually applied over molds. (The molds are made in-house using the same process.) Fiberglass mats or fiberglass fibers mixed with resin are also laid over the molds. Moisture barrier coats are sprayed between certain layers of the fiberglass process. After the layers are cured, they are removed from the mold in the form of a swimming pool.

Pool Making Process -

Pool Mold => mold release spray application => gelcoat spray application => barrier coat spray application => chopped fiberglass spray application (hand rolling after spray application) => resin spray application => fiber mat with resin spray application => chopped fiberglass spray application (hand rolling after spray application)

It takes 40 man hours (8-hours with 5 people) to make a pool. Per pool, about 220 lbs. of gelcoat and 1400 lbs. of resin is used, and about ½ gallon of Mold EZ mold release is used. Acetone is used for cleaning guns and brushes in 5 gallon pails. In the last 3-months, 738 lbs. of acetone was used. Scott estimates that less than 300 lbs. of acetone is used per month. However, they are going to start flushing lines with acetone. He is also looking into an acetone recycler.

During the inspection, the process was operating but materials were not being sprayed. Generally, one person sprays, and up to 4 people roll the materials. PPE (Tyvek, respirators, gloves, and covered safety toed shoes) are worn by the operators when laying up a pool. The permit allows for the installation of two lay-up bays and the use of atomized applicator(s). Only one bay is currently used. The second bay is used to store pool molds, but the fabric filter system is still in place. Due to the number of pool orders, new equipment as been ordered for Bay 2 which hasn't been used in a while.

Resin and gelcoat material is pumped directly from barrels in the coating room to the spray guns. The

coating delivery system has a material measurement device, and is located right beside the bay. The gelcoat guns used are external mix and the chopper guns used are internal mix. Scott is looking into a new chopper gun that is external mix and an automated “memory” robotic system for spraying both gelcoat and resin.

The exhaust system appeared to meet the restrictions in the permit and the filters were in good shape. The filters are changed about once a month based on whether airflow through the filter system is restricted. Assuming 2 to 3 pools are built a week then 8 pools are made before a filter change is needed. They aren't building many new pool molds so they aren't sanding as much which increases how often the filters need to be changed.

Heating in the bays is done using radiant heaters (natural gas/propane) which are exempt per Rule 282(2)(b)(i).

#### Records:

Records requested for inspection:

1. Production logs for January through June.
2. Safety Data Sheets (SDS) of the most commonly used resins, gelcoats and catalysts.
3. VOC (& HAP) emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period for the last 12 months. (July 2019 to June 2020)
4. Acetone emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period for the last 12 months. (July 2019 to June 2020)
5. Waste manifest (bill).

Production logs (2020 Build Sheets) for January through June 2020 were obtained. A production log for each pool tracks the type of material, amount of materials, and the personnel that made the pool as part of the recordkeeping system.

For PTI 53-08B, resins are restricted to 45% by weight of styrene, 47% by weight of VOC, and 2% by weight of MMA, and gelcoats are restricted to 39% by weight of styrene, 42% by weight of VOC, and 10% by weight of MMA.

Resins – H884-IVA-20 Polyester Resin Solution (32.0% styrene, Gelcoats – AQUA VE BARRIER COAT(29.0% styrene), High Definition Caribbean Gel Coat (37.0% styrene, 4% methyl methacrylate), High Definition Sahara Gel Coat (38.0% styrene, 4% methyl methacrylate)  
Catalyst - NOROX® MCP-75 FRED (only the methyl ethyl ketone is considered to be emitted as a VOC). The methyl ethyl ketone content was between 1% to 5% by weight according to the SDS.

The resin used in the last 12-months had a max styrene content of 32.0%, and max VOC content of 32.3% in the records. The gelcoats used in the last 12-months had a max styrene content of 38%, max MMA content of 4%, and max VOC content of 42% in the records.

Compliance with Special Conditions (SC) II.1, II.2, II.3, and II.4 of PTI 53-08B is demonstrated by the records.

For the recordkeeping of emissions, the emission factors (EF) for styrene and MMA from EF Table 1: Unified Emission Factors of Open Molding of Composites (Revised and Approved: 10/13/2009) were used to calculate emissions of VOC (due to styrene and MMA). The UEF factors for “Mechanical Atomized” were used for spray application. Other VOCs from catalyst and mold release were included to demonstrate compliance with the permitted VOC limit of 10 tpy in the records. As of June 2020, emissions of VOC were 6.0 tpy (12-month rolling), less than the 10.0 tpy VOC limit. If all VOC were styrene, then emissions of styrene are below the 9.0 tpy HAP emission limit.

Emissions of acetone are limited to 3.0 tpy per SC I.2. There was 1.7 tpy (12-month rolling) of acetone emissions as of June 2020 which is below the permit limit.

The copies of the SDS for the materials used in the process, production logs, and emission calculation records are located at: S:\@District Facilities\N7982\Records.

Summary:

The facility appeared to be in compliance with all applicable rules and regulations, and PTI 53-08B.

Also, Scott has bought property in an industrial park north of Citizen's Disposal on Grand Parkway. The plan is to build another larger pool manufacturing plant which will probably be subject to the Title V program. I drove back to the property which has the highway on one side of it and has largely rural surroundings with no close residential housing.



Image 1(007) : Bay 2



**Image 2(0009)** : Fabric filters in Bay 1



**Image 3(0011)** : Spray applicators



**Image 4(0012)** : Fuel storage tanks exempt per Rule 284(2)(g)



**Image 5(0013)** : Drive into new property



**Image 6(0015) :** New property

NAME *Audie Brunner*

DATE 8/31/2020

SUPERVISOR *B.M.*