

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

N273964731

<b>FACILITY:</b> Remarkable Foods Hospitality, LLC		<b>SRN / ID:</b> N2739
<b>LOCATION:</b> 715 N MAIN ST, LAWTON		<b>DISTRICT:</b> Kalamazoo
<b>CITY:</b> LAWTON		<b>COUNTY:</b> VAN BUREN
<b>CONTACT:</b> Angie Huntley , Environmental Health and Safety Manager		<b>ACTIVITY DATE:</b> 04/14/2022
<b>STAFF:</b> Rachel Benaway	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> On-site inspection for verification of compliance with all state and federal air use regulations.		
<b>RESOLVED COMPLAINTS:</b>		

An unannounced inspection of Remarkable Foods Hospitality, LLC (N2739) was completed by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff, Rachel Benaway, on 4/14/2022. Remarkable Foods Hospitality is a fiberglass parts manufacturer located in Van Buren County at 715 North Main Street in Dowagiac, MI. The purpose of this inspection was to verify Remarkable Foods is in compliance with their Permit to Install (PTI) #748-90A and all state and federal air use regulations. Remarkable Foods is considered a minor source of emissions for volatile organic compounds (VOCs) and particulate matter (PM), as well as an area source for hazardous air pollutants (HAPs). The facility is not subject to any New Source Performance Standards (NSPS) or National Emissions Standards for Hazardous Air Pollutants (NESHAPs). The last inspection was completed at the facility on 1/17/2018. Jamie Downs is the Senior Director of Vehicle R&D Prototyping for the facility. Angie Huntley is the Environmental Health and Safety Operations Manager, responsible for records submittals. Both individuals were present for the on-site inspection. Matthew Lewandowski is the owner and responsible official for the facility. Personal protection equipment includes safety glasses and safety shoes. There are no boilers, emergency generators, or cold cleaners on the property.

At the time of the last inspection in 2018, the facility was operating with a skeleton crew and was mostly processing research and development materials on an intermittent basis. Many pieces of equipment had been sold or were in the process of being sold but still on the property. It was reported that there remained two paint booths, equipment for closed mold resin operations, and a small machining area with various hand tools and a bandsaw. The facility submitted an application for a new PTI in February of 2022 for the purpose of increasing material usage and emissions limits because the facility has repurposed its process for a new project. Operations at the facility now consist of applying resin, tooling gel coat, and fiberglass production resin to interior vehicle wall panels, as well as fabricating interior cabinetry and fixtures for mobile kitchen units inside Sprinter, Mercedes, or Ford Transit vans. (*Update: The new PTI #748-90 was issued in May of 2022, after the completion of this inspection.*)

While the facility works with a number of subcontractors, they have approximately 30 employees of their own. They operate one shift per day, typically between 7:00 am to 3:30 pm, five days a week. They may scale production up to include two shifts per day in the coming months.

Equipment at Facility	Material Used
Tooling molding operations (negative mold tools): hand lay-up in <b>open-mold</b> process	Vinyl ester resin and fiberglass tooling resin
Production molding operations: fiberglass tooling resin and then final tooling gelcoat in <b>closed mold</b> operation	Tooling gel coat Fiberglass production resin
Clean-up for both tooling and production processes	Acetone
Coating Booth (Building 2) ( <b>Rule 287(2)(c) exempt</b> )	Primer
Sanding Booth (Building 2) ( <b>Rule 285(2)(I)(vi) exempt</b> )	
CNC, sanding, trimming/grinding operations with Baghouse/Hopper (Building 2) ( <b>Rule 285(2)(I)(vi) exempt</b> )	
CNC, sanding, trimming/grinding operations (Building 3) (Includes 2 recessed areas w/ fabric filters) (2 small stacks) ( <b>Rule 285(2)(I)(vi) exempt</b> )	
Coating Booth (Building 4) w/ fabric filter (50ft stack)	Gel Coat
Space heaters ( <b>Rule 282(2)(b) exempt</b> )	

In the PTI application, the facility noted a natural gas-fired curing oven and space heaters that would be utilizing the Rule 282(2)(b) exemption. The facility will be selling the curing oven because it is no longer needed for their process. The oven was still on the property at the time of the inspection disconnected and awaiting removal.

The facility is utilizing the Rule 287(2)(c) exemption for their surface coating activities in the coating booth located in Building 2. Records were submitted to verify the amount of coating used is being tracked and does not exceed the 200 gallons per month limit specified in the exemption.

### Building 1

Building 1 contains shelving for parts inventory and 5 vehicle assembly bays. Each bay has a ventilation port approximately 1 foot off the ground where a tube is attached to vent the exhaust from vehicles during their final test run inside the building, prior to being shipped out. Exhaust ports are on the west side of the building.

### Building 2

Building 2 has a large curtained-off section used for CNC operations (**Rule 285(2)(l)(vi) exempt**). The room has a sweep and vacuum tube system that leads to a Donaldson Torit baghouse. The system includes vacuum tubes, a debris port at ground level for sweeping, and 4 ventilation ports approximately 10 feet off the ground. Maintenance of the baghouse depends on grinding operation usage, but the hopper can usually be filled once a week. Debris is emptied into a dumpster on the premises. The interior of this building appeared well maintained with clean floors outside the curtained CNC area.

This room has a spray coating booth used to prime the vehicle wall panels (**Rule 287(2)(c) exempt**). The booth is located in the corner, has one curtained wall, and is vented externally with a dry filter control. Filters are changed approximately every 3 months.

There is another curtained booth in this room used for sanding and vented internally. This booth has 6 ceiling filter panels and appears to be exempt under **Rule 285(2)(l)(vi)**.

### Building 3

This building is divided by a heavy-duty curtain. One half of the building is used for grinding/sanding/trimming operations (**Rule 285(2)(l)(vi) exempt**) and the other is used for storage. Each half of Building 3 is attached to Building 4 by a doorway. The grinding room has 2 separate recesses that appear to be makeshift "booths." Each recess has its own doorway-sized fabric filter, approximately 6 ft by 4 ft. The filters were both ill-fitting, 1 of which had a 6-inch gap along the ground. The facility was able to correct the few filters that were improperly situated. Discussions on-site about filter fitting led to the facility upgrading the filters used and retrofitting them in place to guarantee proper fitting from now on.

### Building 4

This building contains one spray coating booth along the back for the wall panel gel coat application (hand layup open mold). The filter is changed once or twice a week.

After the gel coat dries, a woven carbon fiber application is applied to the wall panels in sections. The panels are then fixed with a vacuum-sealed bladder that is used for injection mold resin application. Some bladders are reusable while others are disposed after use. The material needs approximately 3 hours to cure at room temperature. There is room for approximately 5 panels to cure at once. A minimal amount of acetone is used to flush out the injection molding system (closed mold). While the styrene odor is strong inside this building, there was no styrene smell detected outside of this building.

### Building 5

This is the metal fabrication shop area with welders, shapers, etc. No operations exhaust to the outside. This area is also used for extra inventory storage.

### PTI #748-90A

SC	Condition	COMPLIANT?
13	Styrene emission rate from hand lay-up or spray up of resin shall not exceed 2.2 lb/hr nor 3.2 tpy (12-month rolling time)	Yes
14	Styrene emission rate from gel spray booth shall not exceed 1.3 lb/hr nor 1.9 tpy (12-month rolling time)	Yes
15	Acetone emission rate as clean up shall not exceed 5.1 lb/hr nor 7.3 tpy (12-month rolling)	Yes
16	No visible emissions from process	Yes
17	Verify VOC by testing if requested	N/A
18	Raw material usage limits:	
	TYPE:            HOURLY USAGE:            MONTHLY USAGE:            YEARLY (12-Month Rolling):	Y/Y/Y
	Resin            55 lb                            14,000 lb                    168,000 lb	Y/Y/Y
	Gel                9 lb                             2,000 lb                    24,000 lb	Y/Y/Y
	Acetone        5.1 lb                          1,200 lb                    14,400 lb	
19	Keep written records:	
	a) Amount resin used monthly	Yes

VOC and styrene content (lb/gal) of resin used	Yes
b) Amount of gel coat used monthly	Yes
VOC content and styrene content (lb/gal) of gel coat used	Yes
c) VOC content of catalyst and cleanup solvents used (lb/gal)	Yes
d) Hours of operation compiled on a daily basis	Yes
e) Emission calculations determining styrene and VOC emission rates	
-average lb/hr	Yes
-tons per month	Yes
-tons per year (12-month rolling)	Yes
20 Do not operate gel spray booth unless all exhaust filters are in place and operating properly	Yes
21 Discharge exhaust gases from gel spray booth unobstructed vertically	Yes
22 Proper disposal of spent filters and waste coating materials	Yes

Emissions calculations and material usage records were submitted for a 2-year period from January 2020 to December 2021. Verification with permitted limits above was done for material usage and emissions totals from 2021. Records indicate the styrene and VOC content of all resins, gel coats, and catalysts used (**SC 19a, b, and c**). The facility averaged approximately 184 operating hours per month in 2021, with the highest hours operated in December at 219 hours (**SC 19d**).

The overall styrene emissions from the facility topped out at 1.1 lb/hr and 188 lb/month in September, with the highest 12-month rolling time (12-MRT) total emitted in December at 1,044.2 lbs (**SC 19e**). The overall highest VOC emissions from the facility were 1.8 lb/hr and 420.4 lb/month in December, with the highest 12-month rolling time (12-MRT) total emitted in 1,560.3 lbs (**SC 19e**).

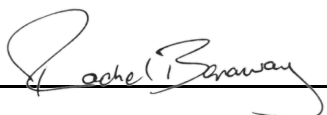
In 2021, the facility used the most resin in September at 28.8 lb/hr and 6,200lb/month (**SC 18 and 19a**). The highest 12-MRT total for resin use was 26,815 lb in December, far below the permitted limit of 168,000 lb/12-MRT (**SC 18**). The facility emitted the most Styrene from resin in December at 0.3 lb/hr, 63.4 lb/month, and 272 lb/12-MRT (**SC 13**).

The most gel coat used was in December at 8.6 lb/hr and 1,992 lb/month, and 8,118.0 lb/12-MRT (**SC 18 and 19b**). The highest Styrene emissions from gel coat application occurred in September at 0.9 lb/hr, 186.8 lb/month, and 772.2 lb/12-MRT (**SC 14**).


The highest acetone emission rate occurred in August at 4.1 lb/hr and 730 lb/month, but the highest 12-MRT acetone emissions were in October at 2,502.9 lbs (**SC 15 and 18**).

After this inspection, Staff requested an exemption applicability demonstration for the sawing, grinding, and trimming processes, particularly those associated with activities in Building 3. The facility responded with the requested information including descriptions of the air input, air flow, duct work, and exhaust systems of Building 3, descriptions of the filters used at the facility, and descriptions of the rated exhaust flow rate and capture efficiency of the dust collectors used on site. The submitted information will be retained on file. The specified activities appear to be exempt from permitting at this time.

**The facility appears to be in compliance with all permitted conditions and all state and federal air use regulations at this time.**

NAME 

DATE 9/23/2022

SUPERVISOR   
acting DS for Rex Lane