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

N238372927

FACILITY: DGP INC.		**SRN / ID:** N2383
LOCATION: 3260 FENNER ST., MARLETTE		**DISTRICT:** Bay City
CITY: MARLETTE		**COUNTY:** SANILAC
CONTACT: Chris Clark Jr. , Vice President		**ACTIVITY DATE:** 06/18/2024
STAFF: Rachel Benaway	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: On-site inspection to verify compliance with MI-ROP-N2383-2023 and all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff, Rachel Benaway, conducted an unannounced air quality inspection of Diversified Glass and Plastics, Inc. (DGP, Inc.) (N2383) on 6/18/2024. DGP, Inc. is a fiberglass product manufacturer located in Marlette, MI (Sanilac County). The purpose of this inspection was to verify DGP, Inc. is in compliance with their Renewable Operating Permit (ROP) MI-ROP-N2383-2023 and all applicable requirements of the Federal Clean Air Act, the Michigan Air Pollution Control Rules, and the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994). DGP, Inc. is considered a major source of emissions for hazardous air pollutants (HAPs) and is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production found in 40 CFR Part 63, Subpart WWWW. The last inspection was completed at the facility on 11/3/2021. Chris Clark, Jr. is the Vice President of the facility responsible for submitting requested records and was present for the on-site inspection.

A significant portion of the fiberglass products made at the facility are truck, bus, recreational vehicle, and boat body parts. The facility operates one shift per day, five days a week, and employs approximately 20 people. Personal protection equipment includes safety glasses and safety shoes. The site was running at the time of this inspection.

#	Equipment at Facility
3	Dry filter spray booths (FG-FIBERGLASS: EU-PATTERNSHOP, EU-LAMINATION, EU-GELCOAT)
	Resin Transfer Molding (RTM) process – EXEMPT (Rule 286(2)(b)) but MACT standard subject (40 CF Part 63, Subpart WWWW)

The three spray booths are located along the south wall of the building. The east booth has not been used for 2 to 3 months. The center booth is used for gel coating. RTM is an exempt (Rule 286(2)(b)) closed molded process that is seldom utilized at the facility at this time. There are no emergency generators or boilers on site. There is one parts washer/brush cleaner wheel that uses a water-based cleaning solution. The facility submitted an MSDS for the solution. Since the last inspection in 2021, no new equipment has been installed and no existing equipment has been modified, relocated, or reconstructed.

The following is a summary of information obtained from the on-site inspection and the submittal of requested records. Where applicable, compliance determinations are indicated for each special condition (SC) established in the PTI, organized by emission unit or flexible group.

EU-PATTERNSHOP

The mold making process may be done in an open area of the facility or in one of the two spray booths used in EU-LAMINATION. Materials used in this emission unit may include Bondo, catalyst, tooling gelcoat (air atomized, done in gelcoat spray booth), or mold resin (hand layup) for making patterns.

Parts are modeled in EU-PATTERNSHOP, sprayed with a primer surfacer, sanded to a gloss, and then covered with a mold release. To make the mold, the model is sprayed with a tooling gel and then the mold resin and fiberglass mat are applied by hand layup. Once the mold is sanded to a gloss and a sealer and mold release are applied, the mold is ready to use for producing parts. Molds are stored inside and outside of the facility in the surrounding yard.

Emission Limits:

SC	Pollutant	Limit	COMPLIANT?
I.1	Styrene	6.0 tpy per 12-month rolling time period	Yes
I.2	VOC (including styrene)	278 lb/day	Yes
I.3		6.2 tpy per 12-month rolling time period	Yes

	VOC (including styrene)		
I.4	Acetone	500 lb/yr per 12-month rolling time period	**Yes**

Material Limit II.1

Material Usage					
Material ID	**Calendar day**	**12-month rolling time period**	**Maximum Styrene Content (wt %)**	**Maximum MMA Content (wt %)**	**COMPLIANT?**
a. Tooling gelcoat	216 lbs	9,996 lbs.	38	5	**Yes**
b. Mold resin	2,170 lbs	103,956 lbs.	50	NA	**Yes**
c. Bondo body filler	1,080 lbs	18,000 lbs.	22	NA	**Yes**
d. Catalyst	44 lbs	2,279 lbs.	NA	NA	**Yes**

SC	Condition	COMPLIANT?
IV.4	The permittee shall equip and maintain the spray booth(s) in EU-PATTERNSHOP with atomized applicators or technology with equivalent or lower styrene emission rates for the application of tooling gelcoat materials. Mold resin and Bondo materials are applied using hand layup techniques	**Yes**

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	The permittee shall keep a separate record of the styrene and MMA monomer contents (if applicable) for each shipment of resin and/or gelcoat received.	**Yes**
VI.3	a. The identity and amount (in pounds) of each material used on a **daily** and **monthly** basis. b. The styrene content of each material used, as applicable. c. The MMA content of each material used, as applicable. d. The acetone content of the tooling gelcoat used. e. The VOC content of each material used. f. The VOC and MEK content of the catalyst used. g. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents). h. Total **daily**, **monthly** and **annual** (12-month rolling time period) usage rates for each material, as applicable, to demonstrate compliance with SC II.1 a through d. i. Styrene emission calculations- **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period. j. VOC emission calculations- **daily** in pounds per calendar day. k. VOC emission calculations- **monthly** in tons per calendar month, and annual in tons per 12-month rolling time period. l. Acetone emission calculations-**monthly** in pounds per calendar month, and **annual** in pounds per 12-month rolling time period.	**a. Yes** **b. Yes** **c. Yes** **d. Yes** **e. Yes** **f. Yes** **g. Yes** **h. Yes** **i. Yes** **j. Yes** **k. Yes** l. Yes

- The facility submitted material usage and emissions records from May of 2022 through May 2024. In that time, only Bondo (22% styrene content) was used in EU-PATTERNSHOP with the highest usage rate at 33 lbs, both in September 2023 and January 2024. The highest 12-month rolling total usage was 290 lbs of Bondo in February of 2024, far below the permitted limit of 18,000 lbs. The highest 12-month rolling total emission of styrene was 0.004 tons in February 2024, well below the permit limit of 6 tpy.

EU-PATTERNSHOP appears to be in compliance with all applicable permit requirements at this time.

EU-LAMINATION

The East and West dry filter spray booths are utilized for lamination processes where polyester resin and/or gelcoat, PVA, lacquer thinner, patch booster, catalyst, and lacquer primer can be applied. At the time of this inspection, the East booth was not in use.

Emission Limits:

SC	Pollutant	Limit	COMPLIANT?
I.1	Styrene	19.8 tpy per 12-month rolling time period	Yes
I.2	VOC (including styrene)	1126 lb/day Calendar day	Yes
I.3	VOC (including styrene)	26.0 tpy per 12-month rolling time period	Yes
I.4	Acetone	0.6 tpy per 12-month rolling time period	Yes

Material Limit II.1

Material Usage					
Material ID	**Calendar day**	**12-month rolling time period**	**Maximum Styrene Content (wt %)**	**Maximum MMA Content (wt %)**	**COMPLIANT?**
a. Gelcoat	**2,688 lbs**	**59,040 lbs.**	38	10	**Yes**
b. Resin	**5,460 lbs**	**531,360 lbs.**	43	NA	**Yes**
c. Catalyst	**108 lbs**	**10,842 lbs.**	NA	NA	**Yes**
d. Patch Booster	**96 lbs**	**800 lbs.**	NA	NA	**Yes**
e. Polyvinyl Alcohol (PVA)	**NA**	**504 gal.**	NA	NA	**Yes**
f. lacquer Primer	**NA**	**300 gal.**	NA	NA	**Yes**
g. Thinner	**NA**	**600 gal.**	NA	NA	**Yes**

SC	Condition	COMPLIANT?
IV.4	The permittee shall equip and maintain the spray booth(s) in EU-LAMINATION with non-atomized applicators or technology with equivalent or lower styrene emission rates for the application of resin materials. Gelcoat materials will be applied using atomized applicators, or technology with equivalent or lower styrene emission rates for the application of gelcoat materials	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	The permittee shall keep a separate record of the styrene and MMA monomer contents (if applicable) for each shipment of resin and/or gelcoat received. All records shall be kept on file for a period of at least five years and made available to the Department upon request	YES
VI.3	Monthly records: a. The identity and amount (pounds) of each material used on a **daily** and **monthly** basis. b. The styrene content of each material used, as applicable. c. The MMA content of each material used, as applicable. d. The acetone content of the lacquer primer and thinner used.	a. Yes b. Yes c. Yes

	e. The VOC content of each material used. f. The VOC and MEK content of the catalyst used. g. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents). h. Calculations - total **daily(*)**, **monthly** and **annual(#)** (12-month rolling time period) usage rates for each material, as applicable, to demonstrate compliance with SC II.1 a through g. i. Styrene emission calculations- **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period. j. VOC emission calculations- **daily** emission rate in pounds per calendar day. k. VOC emission calculations- **monthly** in tons per calendar month, and annual in tons per 12-month rolling time period. l. Acetone emission calculations- **monthly** in pounds per calendar month, and annual in pounds per 12-month rolling time period.	d. Yes e. Yes f. Yes g. Yes h. Yes i. Yes j. Yes k. Yes l. Yes

- The facility submitted material usage and emissions records from May of 2022 through May 2024. In that time, no gelcoat or PVA booster was used in EU-LAMINATION. The facility tracked their usage of resin (30-32% styrene), catalyst (0.03% VOC), patch booster (77.13% styrene), lacquer primer (0.2% VOC), and thinner. The highest resin usage rate at 25,261 lbs/month occurred in April 2024. The highest 12-month rolling total usage for resin was 239,599 lbs in May of 2024, which is below the permitted limit of 531,360 lbs. May of 2024 also recorded the highest 12-month rolling total emission of styrene at 4.59 tons (permit limit: 19.8 tpy) and the highest 12-month rolling total emission of VOCs (including styrene) at 4.7 tons (permit limit: 26 tpy).

EU-LAMINATION appears to be in compliance with all applicable permit requirements at this time.

EU-GELCOAT

The dry filter spray booth used for the gelcoat process is centered between the East and West spray booths. Materials used in this booth may include gelcoats, tooling gelcoats, catalyst and primer surfacer. The gelcoating process may also be done in either lamination booth.

Emission Limits:

SC	Pollutant	Limit	COMPLIANT?
I.1	Styrene	16.0 tpy per 12-month rolling time period	**Yes**
I.2	VOC (including styrene and MMA)	354 lb/day	**Yes**
I.3	VOC (including styrene and MMA)	26.0 tpy per 12-month rolling time period	**Yes**

Material Limit II.1

Material Usage					
Material ID	**Calendar day**	**12-month rolling time period**	**Maximum Styrene Content (wt%)**	**Maximum MMA Content (wt%)**	**COMPLIANT?**
a. Gelcoat	156,000 lbs.	12-month rolling period	38	10	**Yes**
b. Catalyst	3000 lbs.	12-month rolling period	NA	NA	**Yes**
c. Primer Surfacer	996 gallons	12-month rolling period	NA	NA	**Yes**

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	The permittee shall keep a separate record of the styrene and MMA monomer contents for each shipment of gelcoat received. All records shall be kept on file for a period of at least five years and made available to the Department upon request	**Yes**

VI.3	Monthly records: a. The identity and amount (in pounds) of each gelcoat and catalyst used on a **daily** and **monthly** basis. b. The amount, in gallons, of primer surfacer used on a calendar **month** basis. c. The styrene, MMA and VOC content of each gelcoat used. d. The VOC and MEK content of the catalyst used. e. The VOC and styrene content of the primer surfacer used. f. The appropriate emission factor for each raw material used (specify the application method and applicable monomer contents). g. Calculations - total **monthly** and **annual** (12-month rolling time period) usage rates for each material, as applicable, to demonstrate compliance with SC II.1.a through c. h. Styrene emission calculations - **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period. i. VOC emission calculations - **daily** emission rate in pounds per calendar day. j. VOC emission calculations - **monthly** in tons per calendar month, and annual emission rate in tons per 12-month rolling time period.	**a. Yes** **b. Yes** **c. Yes** **d. Yes** **e. Yes** **f. Yes** **g. Yes** **h. Yes** **i. Yes** **j. Yes**

- The material usage and emissions records from May of 2022 through May 2024 indicated that no primer surfacer was used in EU-LAMINATION during that time period. The facility tracked their usage of gelcoat (24-35% styrene) and catalyst (3% VOC). May 2024 recorded the highest gelcoat usage rate at 6,943.8 lbs with the highest 12-month rolling total usage at 64,668.7 lbs (permit limit: 156,000 lbs). That month was also the highest 12-month rolling total emissions of styrene at 4.12 tons (permit limit: 16 tpy) and the highest VOC (including styrene and MMA) at 4.9 tons (permit limit: 26 tpy).

EU-GELCOAT appears to be in compliance with all applicable permit requirements at this time.

EU-CLEANUP

Acetone and miscellaneous solvents are used throughout the facility for cleaning purposes and other solvents are mainly used in lamination booths. Cleanup materials also include solvents used as Mold Release Agents (MRA) which are used to clean the tool surface and prevent parts from adhering to them. The facility uses a liquid semi-permanent and bowling alley paste wax as mold release agents.

Emission Limits:

SC	Pollutant	Limit	COMPLIANT?
I.1	Acetone	24.0 tpy per 12-month rolling time period	Yes
I.2	VOC	10.1 tpy per 12-month rolling time period	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	a. The identity of each clean-up solvent used. b. The amount (in gallons or pounds) of each clean-up solvent used. c. Where applicable, gallons or pounds of each clean-up solvent reclaimed. d. Acetone emission calculations - **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period. e. VOC emission calculations - **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period.	**a. Yes** **b. Yes** **c. Yes** **d. Yes** **e. Yes**

- Submitted records from May of 2022 through May of 2024 indicated the highest 12-month rolling acetone usage total of 1.81 tons in May and June of 2023, well below the permitted limit of 24 tpy.

EU-CLEANUP appears to be in compliance with all applicable permit requirements at this time.

EU-ADHESIVE

Description: Adhesive materials used throughout the facility.

Emission Limits:

SC	Pollutant	Limit	COMPLIANT?

I.1	VOC	1.6 tpy 12 MRT	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	a. The identity of each adhesive used. b. The amount (in gallons or pounds) of each adhesive used. c. Where applicable, gallons or pounds of each adhesive reclaimed. d. The VOC content of each adhesive used. e. VOC emission calculations - **monthly** in tons per calendar month, and **annual** in tons per 12-month rolling time period.	**a. NA** **b. NA** **c. NA** **d. NA** **e. NA**

- Records submitted by the facility indicated there was no adhesive used during the time period of May 2022 through May 2024.

EU-ADHESIVE appears to be in compliance with all applicable permit requirements at this time.

FG-FIBERGLASS
Description: The fiberglass manufacturing process consists of a pattern shop, production area using resin and gel coatings, and acetone use in cleanup activities. **EUs: Patternshop, Lamination, Gelcoat, Cleanup, Adhesive**

SC	Condition	COMPLIANT?
III.1	All waste cleanup solvent(s), catalyst(s), resin(s), gelcoat(s) and other associated materials used in FG-FIBERGLASS shall be captured and stored in closed containers and disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations	**Yes**
IV.1	The permittee shall not operate any booth associated with FG-FIBERGLASS unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner	**Yes**

- The filters on both spray booths were observed to be installed and maintained properly. The East booth is not being used at this time. Exhaust filters are changed in the West booth daily, spent filters are disposed of properly, and at least 2 rolls of filters are kept on hand at all times to facilitate proper maintenance.

FG-FIBERGLASS appears to be in compliance with all applicable permit requirements at this time.

FG-MACT
The stationary source is subject to the National Emissions Standards for Hazardous Air Pollutants- Reinforced Plastic Composite Production promulgated under Title 40 of the Code of Federal Regulations, Part 63, Subparts A and WWWW. **EUs: Patternshop, Lamination, Gelcoat, Cleanup, Adhesive, RTM**
(The resin transfer molding process is exempt from R 336.1201 Permit to Install requirements via R 336.1286 (2)(b).)

SC	Condition	COMPLIANT?
III.1	*Permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and WWWW, as they apply to FG-MACT.*	**No***
III.2	Permittee shall not operate FG-MACT except in compliance with the **work practice standards** of 40 CFR Part 63, Subpart WWWW, **Table 4**	**Yes**
III.3	Permittee shall demonstrate compliance with the **standards** in **40 CFR Part 63, Subpart WWWW, 40 CFR 63.5805** by using the methods in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5810. The emission factors from Table 1 to Subpart WWWW of 40 CFR Part 63 are found in Appendix 4 and shall be used to calculate organic HAP emissions for the purposes of this compliance demonstration	**Yes**
V.1		**Yes**

	The HAP content of any resin, gelcoat, etc., as received and as applied, shall be determined using Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Upon request of the AQD District Supervisor, the manufacturer's HAP formulation data shall be verified using EPA Test Method 311	

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.1	Maintain a current listing from the manufacturer of the chemical composition of each material (i.e. resin, gelcoat, catalyst, cleanup solvent, etc.), including the weight percent of each component. The data may consist of Material Safety Data Sheets	**Yes**
VI.2	*Submit the applicable **notifications** and reports by the dates specified in **Table 13 and Table 14 to Subpart WWWW of 40 CFR Part 63** to the Department in accordance with 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5905 and 40 CFR 63.5910, respectively*	**No***

- The facility maintains current material safety data sheets for all materials used on site, including weight percentages of all components.

*The facility has not submitted the required semi-annual report stating they are in compliance with the NESHAP Subpart WWWW along with their ROP Certification Reports for the past two reporting cycles (September 2023 and March 2024). Because this is a repeat occurrence of this nonsubmittal, a Letter of Violation will be issued.

FG-MACT is not in compliance with all applicable conditions at this time.

FG-MACT-WWWW

Each existing affected source at reinforced plastic composites production facilities as identified in 40 CFR Part 63, Subpart WWWW, 40 CFR 63.5785 and 40 CFR 63.5790 that emit less than 100 tpy of HAP. Reinforced plastic composites production includes the following operations: open molding, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage, and repair operations associated with the production of plastic composites. **EUs: Patternshop, Lamination, Gelcoat, Cleanup, Adhesive, RTM.** The resin transfer molding process is exempt from R 336.1201-Permit to Install requirements via R 336.1286(2)(b).

SC	Condition	COMPLIANT?
III.2	Permittee must be in compliance at all times with the work practice standards of Table 4 of 40 CFR Part 63, Subpart WWWW b. The permittee shall not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. c. For each HAP-containing materials storage operation, the permittee must keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. d. For each mixing operation, the permittee must use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. e. For each mixing operation, the permittee must close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety.	**Yes**

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	a. Collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used Resin use records may be based on purchase records if the permittee can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier. b. Compliance with organic HAP emissions limits is demonstrated by maintaining an organic HAP emissions factor value less than or equal to the appropriate organic HAP emissions limit listed in	**Yes**

	Table 3 of 40 CFR Part 63, Subpart WWWW, on a 12-month rolling average, and/or by including in each compliance report a statement that individual resins and gel coats; as applied, meet the appropriate organic HAP emissions limits, as discussed in 40 CFR 63.5895(d)	
VI.3	Keep the following records: a. A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart WWWW b. Records of performance tests, design, and performance evaluations as required in 40 CFR 63.10 (b)(2) c. All data, assumptions, and calculations used to determine organic HAP emissions factors or average organic HAP contents for operations listed in Tables 3 and 7 of 40 CFR Part 63, Subpart WWWW *d. A certified statement that the permittee is in compliance with the work practice requirements in Table 4 of 40 CFR Part 63, Subpart WWWW, as applicable*	**No***

- The facility is subject to 40 CFR 63 subpart WWWW for their open molding manual and nonatomized mechanical resin application and open molding gelcoat application. There are several emission limits established by the NESHAP per a 12-month rolling average based on material and application method. The gelcoats used have a range of styrene content from 24 to 36.91% and the resins used vary in styrene content from 30 to 32%. Demonstration was provided that, on average, the facility meets the individual organic HAP emission limits for each unique combination of operation type and resin application method or gel coat type shown in Table 3 of 40 CFR Part 63, Subpart WWWW that applies to the facility. The facility is tracking their styrene emissions on a monthly and 12-month rolling time period.
- The mixing equipment was observed to be in compliance with the workplace standards above (40 CFR Part 63, Subpart WWWW, Table 4.8).

*The facility has not submitted the required semi-annual report stating they are in compliance with the NESHAP Subpart WWWW along with their ROP Certification Reports for the past two reporting cycles (September 2023 and March 2024). Because this is a repeat occurrence of this nonsubmittal, a Letter of Violation will be issued.

FG-MACT-WWWW is not in compliance with all applicable conditions at this time.

All records submitted to demonstrate compliance with permit requirements and emissions limits are included with this report.

NAME Rachel Seaman DATE 8/2/24 SUPERVISOR