

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

P079561999

FACILITY: Hastings Fiberglass Products		SRN / ID: P0795
LOCATION: 1301 W Green Street, HASTINGS		DISTRICT: Grand Rapids
CITY: HASTINGS		COUNTY: BARRY
CONTACT: Joe Baumgartner , Engineer		ACTIVITY DATE: 02/28/2022
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced compliance inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

The facility is located within the City of Hastings and manufactures insulated tools and equipment used in the installation and maintenance of high-voltage electric lines (hot line tools). Operations include pultrusion, resin mixing, a gelcoat booth, open molding, use of adhesives, cleanup activities, sawing operations and fiberglass finishing equipment. Particulate emission sources have baghouse control.

The facility currently operates two shifts, with minimal operations during the second shift. The pultrusion lines are operated 24 hours a day, five days a week.

REGULATORY OVERVIEW

The facility's operations are covered by Opt-Out Permit No. 33-17B. The facility has HAP opt-out limits and is therefore not subject to the Reinforced Plastic Composite NESHAP, Subpart WWWW.

COMPLIANCE EVALUATION

Prior to entering the facility, no abnormal odors were noted. Observation of the facility showed no visible emissions.

At the facility staff met with Joseph Baumgartner, Engineer. Mr. Baumgartner provided a tour of the facility and provided requested records.

Below is an evaluation of the facility's compliance with applicable air quality rules, regulations and permit conditions.

PTI No. 33-17B

EUCLEANUP

Includes miscellaneous cleanup activities throughout the facility.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of acetone to 17.0 tons per year.

Compliance with the acetone emission limit is demonstrated through the requirement that the facility maintain records of acetone usage, reclamation and the monthly and 12-month emission rate.

The facility provided requested records for the most recent 12-month time period. The highest monthly usage of acetone was 1.32 tons and the 12-month total ending in February 2022 was 7.96 tons.

PROCESS/OPERATIONAL RESTRICTIONS

Requires the proper handling of cleanup materials to minimize the generation of fugitive emissions. No open containers or other fugitive emission sources from cleanup material was observed during the inspection.

All waste cleanup materials are required to be stored in closed containers and disposed of properly. Staff did not observe anything contrary to this requirement during the inspection.

EUADHESIVE

Use of adhesives at various product assembly stations.

EMISSION LIMITS/RECORDKEEPING

Restricts VOC emissions to 2.0 tpy based on a 12-month rolling time period.

The facility uses a 2-part epoxy adhesive, Plexus (A-side) and (B-Side).

Compliance with the adhesive emission limit is demonstrated through the requirement that the facility maintain records of adhesive usage, reclamation and the monthly and 12-month emission rate.

The facility provided requested records for the most recent 12-month time period. The accumulative total VOC emissions were 0.066 tons, ending in February 2022.

PROCESS/OPERATIONAL RESTRICTIONS

Requires the proper handling of adhesive materials to minimize the generation of fugitive emissions. No open container or other fugitive emission sources from adhesive material was observed during the inspection.

All waste adhesive materials are required to be stored in closed containers and disposed of properly. Staff did not observe anything contrary to this requirement during the inspection.

FGPULTRUSION

Four pultrusion molding lines used to produce fiberglass tools and products. Operations include resin mixing and sawing of cured product.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of VOC to 8.6 tons per year.

Compliance with the VOC emission limit is demonstrated through the requirement that the facility maintain records of resin, additives, catalysts, mold release materials, etc. usage, and monthly and 12-month emission rate.

The facility provided requested records for the most recent 12-month time period. The highest monthly VOC emission rate was 0.418 tons. The 12-month total ending in January 2022 was 3.402 tons.

MATERIAL LIMITS

The VOC content of resin used in FGPULTRUSION is limited to 35%. Review of the facility's SDS data base showed no resin with a VOC content greater than 35%.

PROCESS/OPERATIONAL RESTRICTIONS

Requires the proper handling of all VOC and HAP containing materials to minimize the generation of fugitive emissions. No open containers or other fugitive emission sources from pultrusion were observed during the inspection.

All waste materials are required to be stored in closed containers and disposed of properly. Staff did not observe anything contrary to this requirement during the inspection.

MONITORING/RECORDKEEPING

The facility is required to keep monthly records of material usage and emissions associated with FGPULTRUSION.

The facility provided the required records for the most recent 12-month time period.

Stack/Vent

SVPULTRUSIONGEL is required to have a maximum exhaust diameter of 36 inches and a minimum height of 39 feet.

Actual measurements were not made during the inspection, however the stack appeared to be in compliance with the permit.

Note: Each of the pultrusion lines have cut-off saws, from which emissions are captured and ducted to the Dostar baghouse.

FGGELCOAT

Operation consisting of EUGELCOATSPRAY, which includes an atomizing chop gun and EUHANDLAYUP, which includes hand layup molding with fiberglass matts, resin and gelcoat. Emissions are routed to SVPULTRUSIONGEL.

The facility did not transfer the chop operations to the new location; therefore, they only conduct hand layup.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of VOC to 2.5 tons per year.

Compliance with the VOC emission limit is demonstrated through the requirement that the facility maintain records of resin, additives, catalysts, mold release materials, etc. usage, and monthly and 12-month emission rate.

The facility provided records for the most recent 12-month time period. For the 12-month period ending in February 2022, the facility documented a total of 0.7598 tons of VOC emissions.

MATERIAL LIMITS

The VOC content of resin used in FGELCOAT is limited to 35%. Review of the SDSs for the resin showed no gelcoat with a VOC content greater than 35%.

PROCESS/OPERATIONAL RESTRICTIONS

Requires the proper handling of all VOC and HAP containing materials to minimize the generation of fugitive emissions. No open containers or other fugitive emission sources were observed during the inspection.

All spent filters shall be disposed of in a manner to minimize the introduction of air contaminants to the outer air. Staff did not observe anything contrary to this requirement during the inspection.

All waste gelcoat materials are required to be stored in closed containers and disposed of properly. Staff did not observe anything to the contrary of this requirement during the inspection.

DESIGN/EQUIPMENT PARAMETERS

The permittee is required to install and maintain an exhaust filter in the booth associated with FGELCOAT.

During the inspection a filter was in place and appeared to be in good condition.

MONITORING/RECORDKEEPING

The facility is required to keep monthly records of material usage and emissions associated with FGELCOAT.

The facility provided requested records for the most recent 12-month period.

Stack/Vent

SVPULTRUSIONGEL is required to have a maximum exhaust diameter of 36 inches and a minimum height of 39 feet.

Actual measurements were not made during the inspection, however the stack appeared to be in compliance with the permit.

FGDUSTCOLLECTOR

Operation consisting of finishing equipment (saws, routers, sanders, grinders) and the cutting of fiberglass tools and products once they are cured and cooled.

Particulate (dust) emissions from throughout the plant are controlled by a common dust collector (50,000 cfm)

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of PM to 0.010 lb per 1,000 lbs exhaust gas.

Compliance with the PM emission limit is based on proper operation of the baghouse and monitoring the pressure drop across the baghouse when the unit is exhausting to the atmosphere.

PROCESS/OPERATIONAL RESTRICTIONS

The facility is required to install, maintain and operate the baghouse in a satisfactory manner.

The facility is operating the Dustar baghouse. Observation of the baghouse showed no visible emissions and excellent housekeeping practices.

DESIGN/EQUIPMENT PARAMETERS

The facility is required to install and operate a differential pressure gauge.

During the inspection the gauge was observed and was operating. The gauge is located inside the plant.

MONITORING/RECORDKEEPING

The facility is required to maintain daily records indicating if the baghouse is exhausting to the ambient air. If exhausting to the ambient air, a record of the differential pressure is required to be made at least once per calendar day.

The facility has established a pressure drop range of 0.4" to 6.0". The baghouse was venting internally at the time of the inspection and had a pressure drop reading of 0.6".

Stack/Vent

SV-DC is required to have a maximum exhaust diameter of 54 inches and a minimum height of 32 feet.

Actual measurements were not made during the inspection, however the stack appeared to be in compliance with the permit.

FGFACILITY

Facility-wide HAP and styrene limits.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of each individual HAP to 8.9 tpy and aggregate HAPs to 22.4 tpy. It also limits the facility-wide styrene emissions to 6.3 tpy.

Compliance with the emission limits is demonstrated through the requirement that the facility maintain records of material usage, and monthly and 12-month emission rate.

The facility provided requested records for the most recent 12-month time period.

The facility recorded the following emissions for the time period ending in February 2022.

Highest emitted individual HAP: Styrene	2.71 tons
Aggregate HAP emissions:	2.82 tons
Styrene	2.71 tons

MISCELLANEOUS

The facility had been calculating 12-month rolling time period emissions based on a set 12-month calendar time period, resetting each calendar year. The facility was requested to maintain records on a continuous 12-month rolling time period basis. The facility agreed to calculate emission in this manner going forward.

In addition to the above listed processes, the facility has a pole manufacturing process call “prepreg”. The prepreg process is not addressed in the PTI. The process involves the rolling of sheets pre-impregnated with resin around a mandrel to form a pole. After the sheets are applied, a nylon coating is added after which the product is placed in a cure oven and cured at 275 degrees. After curing, the product is removed from the mandrel and the nylon is cut off with a water jet.

The facility tracks material usage as the weight of the resin and resin constituents. The facility calculates emissions based upon 2% of the resin by weight being emitted as VOCs. The facility provided emission estimate data provided by the product supplier/manufacture. The manufacture estimates that acetone is emitted in the amount of 2% of the resin used. Rule 290 allows for the emission of 1,000 pounds of uncontrolled acetone emissions per month. The facility is tracking usage and estimating emissions. Based on the facility usage records, emissions of acetone are below 1,000 pounds per month. Note: the facility records estimate emissions based on 2% of the phthalates and hydroquinone, as opposed to the total weight of resin. The facility indicated that they would change to calculating based on total resin usage. Emissions based on current usage will still be below that allowed by Rule 290.

Conclusion

Based on the information and observations made during this inspection, the facility appears to be in compliance with all applicable air quality rules and regulations.

-Records Attached

NAME Eric Grinstern

DATE 03/08/2022

SUPERVISOR HH