

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

N559973475

FACILITY: LYONS INDUSTRIES		SRN / ID: N5599
LOCATION: 30000 M-62 WEST, DOWAGIAC		DISTRICT: Kalamazoo
CITY: DOWAGIAC		COUNTY: CASS
CONTACT: Maryann Pears , Purchasing Manager		ACTIVITY DATE: 03/06/2024
STAFF: Cody Yazzie	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On March 6, 2024 Air Quality Division (AQD) staff (Cody Yazzie and Mariah Scott) arrived at 30000 M-62 West, Dowagiac Michigan at 10:30 AM to conduct an unannounced air quality inspection of Lyons Industries, Inc. (hereafter Lyons) SRN (N5599). Staff made initial contact with the office receptionist and stated the purpose of the visit. Maryann Pears, Lyons, Purchasing Manager, handles the air quality environmental records and acted as the site contact during the inspection.

Lyons manufactures sinks, tubs, and shower wall enclosures using plastic vacuum forming and fiberglass resin lay-up operations. An outside dust collector is connected to sanders and saws. Source emission units include EUARCBOOTH1, EUGELBOOTH, EUDUSTCOLLECTOR, and EUGENERATOR. EUARCBOOTH1 and EUGELBOOTH are both controlled by fabric filters.

Lyons was last inspected by the AQD on July 26, 2022 and appeared to be in Compliance at that time with MI-ROP-N5599-2022. Staff asked, and Mrs. Pears stated that the facility does not have any cold cleaners or parts washers.

Mrs. Pears gave staff a tour of the facility. Required personal protective equipment are safety glasses, steel toe boots, and hearing protection. Staff observations and review of records provided during and following the inspection are summarized below:

EUDUSTCOLLECTOR:

This emission unit is used to control emissions from grinders, floor sweeps, and saws used at the facility. The only recordkeeping requirement that this emission unit has is to perform and maintain a daily inspection of the dust collector including visual inspection for days that the facility is operating. The facility provided records of these daily inspections for the time period January 2023 through March 2024. These records are on the "DEQ Spray Booth and Dust Collector Forms". The facility appears to be complying with this recordkeeping requirement.

FGBOOTHSUMMARY:

FGBOOTHSUMMARY is a flexible group that includes EUARCBOOTH1 and EUGELBOOTH which are used for gel coat spray and fiberglass lay-up operations. These operations use fabric filters as pollution control devices.

The facility is required to change the dry filters in the booths when the differential pressure readings are outside the range specified by the manufacturer and or the visual capture efficiency inspection concludes that the inadequate capture efficiency is taking place. The facility notes the inspections of these filters on the "DEQ Spray Booth and Dust Collector Forms". These inspections are conducted daily and appear to check both the filter placement and that differential pressure

across the filter. It is also indicated on the recordkeeping sheet if the filters are changed. Staff was provided with the time period of January 2023 through March 2024, in which the facility appeared to change the filters every day that spray booths were in operation. This appears to meet the requirements outlined in Special Condition III.1, VI.2, and VI.3.

Special Condition IV.1 requires that the booths be equipped with HVLP spray guns or equivalent technology having comparable transfer efficiency. The previous inspection indicated that the guns appeared to be meeting the requirement. During the inspection it was indicated that the spray operations did not have any recent changes.

The facility is required to maintain record of emission calculations for VOC, styrene, and acetone emissions associated with the lay-up operations. The facility has both a pound per hour limit calculated on a monthly basis and a 12-month rolling time period emission limit for all three pollutants. The facility maintains record of the hours of operation that is used to calculate the pound per hour emission rate.

The facility appears to be tracking the VOC composition by weight of VOC used in the Resin, Catalyst, Proprietary, and Acrastrip solvents used in the lay-up operations. The 12-month rolling VOC emission limit is 98.5 TPY. The largest calculated VOC emissions for the time period of January 2023 through February 2024 was recorded as 87.72 TPY, which occurred in June 2023. The monthly VOC emission rate limit is 124.2 pounds per hour. The largest calculated VOC emission rate during the same time period was noted as 47.22 pounds per hour of VOC emissions, which occurred in February 2023. These are both below the permitted limits.

The facility appears to be tracking the styrene composition by weight of styrene used in the resin in the lay-up operations. The 12-month rolling styrene emission limit is 98.2 TPY. The largest calculated styrene emissions for the time period of January 2023 through February 2024 was recorded as 63.91 TPY, which occurred in June 2023. The monthly styrene emission rate limit is 123.9 pounds per hour. The largest calculated styrene emission rate during the same time period was noted as 34.58 pounds per hour of styrene emissions, which occurred in February 2023. These are both below the permitted limits.

The facility has not recorded any acetone usage. It was noted in the previous inspection report that the facility has not used acetone since 2008. The facility currently uses Acrastrip for clean-up operations. The facility appears to be tracking VOC emissions from these operations.

FGNESHAPWWW:

The spray booths at the facility are subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart WWW- Reinforced Plastics Composites Production. In section 63.5805(b) of the subpart requires the facility to meet the organic HAP emissions limits in Table 3. The Table establishes an emission limit based on the type of operation and method of application. From previous inspection and during the current inspection the facility appeared to be utilizing the open molding – non-CR/HS operation type and a mechanical resin application. This limits the organic HAP emissions to 88 lbs/ton. The facility appears to calculate this using the UEF table that is included in Appendix 4a of the ROP. From this UEF table the emission rate uses the formula $(0.107 \times \% \text{styrene} \times 2000)$ for the emission rate. Using the 32% styrene the emission rate equals 68.48 lb/ton which is below the limit established in the NESHAP standard.

FGNESHAP ZZZZ:

This flexible group is for the generator that is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions. The engine is 1,135 BHP (2.89 MMBTU/hr) #2 diesel fired compression ignition emergency generator.

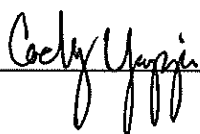
The facility is required to only burn diesel fuel which has a maximum sulfur content of 15 ppm and a minimum cetane index of 40. Staff was provided with documentation that the fuels was meeting these specifications.

The facility is required to monitor and record the total hours of operations for the engine on a monthly basis and indicate if the hours of operation were for emergency or non-emergency service. The facility appears to only operate the engines for emergencies. The facility takes a monthly meter reading and indicate the reason for operating. In 2023 the engine had a total of 14.5 hours of operation in which it appeared to be used for emergencies.

Conclusion:

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with MI-ROP-N5599-2022. Staff stated to Mrs. Pears that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 11:30 AM.-CJY

NAME



DATE

9/11/24

SUPERVISOR

