

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

N742561998

<b>FACILITY:</b> TRI-CLOR, INC.		<b>SRN / ID:</b> N7425
<b>LOCATION:</b> 1012 ENTERPRISE DR., HASTINGS		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> HASTINGS		<b>COUNTY:</b> BARRY
<b>CONTACT:</b> Chad Tolles ,		<b>ACTIVITY DATE:</b> 02/28/2022
<b>STAFF:</b> Eric Grinstern	<b>COMPLIANCE STATUS:</b> Non Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Unannounced on-site compliance inspection		
<b>RESOLVED COMPLAINTS:</b>		

## **FACILITY DESCRIPTION**

Tri-Clor Inc. is an open mold fiberglass reinforced product manufacturing facility. The facility manufactures tanks, piping and other corrosion resistant products.

The facility consists of three buildings, the main building which houses the offices and a newer large green building along with an adjacent Quonset hut for storage.

The facility has approximately 20 employees and normally operates Monday through Friday, 06:00 – 15:30.

The facility is located at the end of Enterprise Drive, with residential neighborhoods adjacent to the south and west. AQD has not received any recent complaints regarding the facility.

## **REGULATORY ANALYSIS**

The facility currently has an opt-out permit, PTI No. 24-05C, that covers all regulated emissions units. The facility has an active consent order (No. 18-2008). The CO is eligible for termination if all the requirements have been met.

## **COMPLIANCE EVALUATION**

At the facility, AQD staff, consisting of Eric Grinstern (EG), met with Chad Tolles, Manager, who accompanied EG during the facility tour.

**Prior to entering the facility, no visible emissions or odors were observed.**

Facility operations are located in two separate buildings. The main building, with offices in the front, contains the laminate processes (including a small oven to heat the laminate to allow thermal forming), metal working, laminate welding, and water jet cutting. All of the processes in this building appear to be exempt from permitting under either Rule 285 (2)(I)(vi)(B) or Rule 282(2)(a)(vi)(b)(i).

The newer green building contains all of the emission units addressed in PTI No. 24-05C. Emission unit EUSMLDAMDREL is listed in PTI No. 24-05C as being exhausted through a 36-foot stack (Stack #1). The emission unit was originally located in the back of the main building with offices. The facility stated that EUSMLDAMDREL was moved to the green building shortly after the permit was issued. Review of the permit evaluation shows that EUSMLDAMDREL had the highest styrene impact out of the three emission units due to the 36-foot stack (9,000 cfm) versus the other two emission units having 40-foot stacks (each with 16,000 cfm). The permit evaluation also shows that the emissions were evaluated by combining the impacts of all three stacks, which is a conservative approach since it assumes all three stack maximum impacts occur simultaneously at the same point spatially. Therefore, it appears that moving the emission unit to exhaust out of a 40-foot stack with an increased cfm would not have a negative impact on modeling and meets the minimum stack height requirement of 36-feet in the permit. It appears that the relocation of the emission unit is exempt under Rule 285(2)(a).

PTI No. 24-05C contains four emissions units, EUFILIMENTWIND, EUSMLMANDREL, EUHANDLAYUP and EUCLEANUP. The four emission units are combined into FGFIBERGLASS for styrene and VOC limits and restrictions.

### **EUHANDLAYUP**

Fiberglass lay-up operations with application of resin using only manual lay-up application methods.

The permit restricts the permittee to only apply resin using manual applicator equipment.

Based on the observations during the inspection, only manual applicator equipment is used.

### **EUCLEANUP**

Emission unit covers facility-wide cleanup activities using acetone.

### **EMISSION LIMIT**

The permit limits acetone emissions to 10 tons per year, on a 12-month rolling time period basis. Compliance with the acetone limit is determined by tracking acetone use versus the amount of acetone reclaimed. The facility deducts a small amount of acetone used in the field from the facility

usage totals. The facility uses a small amount of acetone in the field off-site for installations and repairs.

Review of acetone usage records for the past 12 months showed a 12-month rolling time period high in January 2022, with 2.55 tons of acetone emissions.

### **PROCESS/OPERATIONAL LIMITS**

Requires that a minimum of 25% of the acetone received be recovered for shipment offsite.

The facility tracks the monthly and 12 month rolling total percentage of acetone reclaimed. On a 12-month rolling time period, acetone recovery averages around 60%. For a single month the amount recovered ranged from 25% to greater than 152%. They can have greater than 100% recovery since they record the amount reclaimed on the month it is shipped off-site. Since the amount recovered may be accumulated from more than a single month, they may ship off-site more than they use in a given month.

### **RECORDKEEPING/REPORTING/NOTIFICATION**

Requires the facility to maintain monthly records of the type of cleanup solvent used, the amount used, the amount and percentage reclaimed and emission calculations.

The facility supplied records for the past 12-months. The facility reports only acetone used as a cleanup solvent.

### **FGFIBERGLASS**

Flex group includes: EUFILAMENTWIND, EUSMLMANDREL, EUHANDLAYUP, EUCLEANUP

### **EMISSION LIMIT**

Restricts the emissions of Styrene and VOC. Styrene emissions are limited to 8.9 tons per year and VOC is limited to 9.3 tons per year.

Compliance with the emission limits is calculated based on material usage and the unified emission factors for open molding of composites.

Review of the facility records for the past 12-month period showed that the highest 12-month rolling time period emission rate occurred ending in February 2022 with a calculated emission amount of 2.75 tons. The highest VOC emission amount also occurred ending in the same month with 2.83 tons of VOC.

## **MATERIAL LIMITS**

Limits the styrene content of any resin used to 50.5 percent or less.

Review of the styrene content of the resins reported by the facility to be used, showed the highest content to be 48.5%.

## **PROCESS/OPERATIONAL**

Requires the installation and operations of exhaust filters for EUFLILAMENTWIND and EUSMLMANDREL.

Exhaust to Stacks #2 and #3 is via floor vents on the east end of the building. The previous compliance inspection determined that the floor vents need to have exhaust filters, as required by the permit. During this inspection the vents did not have exhaust filters installed. Failure to maintain exhaust filters is a violation of Special Condition 3.3. Subsequent to the inspection the facility provided a plan detailing the installation and maintenance of exhaust filters. The facility stated that they plan to have the filters installed the week of March 8, 2022.

Requires waste catalyst and resin be stored in closed containers and disposed of properly.

The facility was reminded that all waste drums need to have lids, as well as any drum that is not actively being used.

## **EQUIPMENT**

Requires the use of non-atomized application methods unless product specifications require the use of atomized.

The facility currently only performs filament wind and hand lay-up. The facility has a chop gun that is rarely used.

## **RECORDKEEPING/REPORTING/NOTIFICATION**

Requires the maintenance of chemical composition data (SDS) for each material used.

The facility maintains the required records on-site

Requires that the facility maintain styrene monomer content records for each shipment of resin received.

The facility maintains the required records on-site

The facility is required to maintain calendar month records of monthly and annual emission calculations.

The facility maintains the required records on-site.

## **STACKS**

Visual observation of the stacks showed that they appeared to meet the height and diameter requirements. Stack #2 and Stack #3, each are required to have a maximum 20" diameter x 40 feet in height.

## **MISCELLANEOUS**

In addition to the permitted processes, the facility performs sanding and grinding operations. These operations are conducted in a semi-enclosed booth as well as on the plant floor. These processes vent internally. The grinding and sanding operations are exempt from permitting under Rule 285(2)(I)(vi)(B).

## **CONCLUSION**

Based on the information and observations made as part of this inspection, the facility appears to be in compliance with applicable air quality rules and regulations, with the exception of the following:

The facility did not have exhaust filters in place for EUFILAMENTWIND and EUSMLNANDREL. A Violation Notice will be issued.

**FGFIBERGLASS, Special Condition No. 3.3 -**

**Beginning within 60 days after permit approval and continuing thereafter, the permittee shall not operate EUFILAMENTWIND or EUSMLMANDREL unless the respective exhaust filter for the emission unit is installed, maintained and operated in a satisfactory manner.  
(R 336.1301, R 336.1331, R 336.1901)**

**(Records Attached)**

NAME Eric Grinstern

DATE 03/23/2022

SUPERVISOR HH