

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N742526743

FACILITY: TRI-CLOR, INC.		SRN / ID: N7425
LOCATION: 1012 ENTERPRISE DR., HASTINGS		DISTRICT: Grand Rapids
CITY: HASTINGS		COUNTY: BARRY
CONTACT: Chad Tolles		ACTIVITY DATE: 09/04/2014
STAFF: Steve Lachance	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Inspection for FY '014 FCE. See CA_N742526743. (SLachance, 9/9/14)		
RESOLVED COMPLAINTS:		

SL conducted an unannounced inspection of the facility on Thursday, September 4, 2014. SL arrived on-site at about 1 PM and met with, and was escorted during the inspection by, Mr. Chad Tolles of the facility.

Prior to plant entry, SL conducted a visible emissions and odor survey in the vicinity of the facility. Weather conditions were post-storm and about 70 degrees F, cloudy but clearing, with inconsistent winds. No visible emissions were noted, and the facility's odor was not recognizable in these public areas. As the inspection progressed, SL noted "styrene" odors on-site (inside and outside). None of these odors were considered to be "offensive." There have been no complaints received by AQD/attributable to this facility during the current Fiscal Year.

SL introduced himself to Mr. Tolles and announced his intention to complete an Air Quality Inspection. SL shared and explained the DEQ's "Environmental Inspections; Rights and Responsibilities" brochure.

The facility fabricates large fiberglass structures (tanks, pipe linings, secondary containment linings, etc.) Operations are housed in two buildings, the main building (including offices) and the newer green building directly to the east. The vast majority of the production takes place in the newer green building; SL noted appropriate ventilation systems with below-floor draw in this building.

Mr. Tolles indicated no changes in equipment or production since the last DEQ-AQD inspection in September 2013.

SL shared a copy of an active AQD Consent Order (No. 18-2008) for the facility with Mr. Tolles. The stipulated period of three years has expired; and so this Order is eligible for termination (pending acceptable determination of compliance.) The Order incorporates the requirements of PTI 24-05B and subsequent revisions; the applicable permit at this time is the revised PTI # 24-05C. SL specifically pointed out the termination provisions within the Order for the facility's consideration.

Mr. Tolles provided a tour of the production facilities, during which he and SL discussed permit requirements and how compliance with PTI 24-05C is maintained.

Most of the facility's production involves hand lay-up; this was observed on this date. Some filament wind production takes place for certain products/customers.

The facility's recordkeeping is based on mass balance. Each solvent/styrene mix/catalyst is inventoried monthly; purchase records maintained monthly; and so monthly use is based on observed changes in inventory in combination with materials received. (This can be reconciled

with production of specific products.) The VOC content of each material and Emission Factors used in permitting are maintained in a multi-sheet spreadsheet. Entry of monthly material used thereby generates emissions estimates on a monthly basis.

Review of the EI2013 MAERS submittal indicated acceptable submittal and documentation; and compliance with applicable emission limits for 2013. Mr. Tolles demonstrated that the records for 2013 on-site at this time corresponded to the values submitted with the MAERS report.

Mr. Tolles also had current records of monthly inventories/shipments received per month. See attached for the three most recent months (including August, 2014.) Entry of such information on a monthly basis maintains the compliance demonstration records required by the permit. See attached (current emissions through August 2014.). SL was pleased to see the material records in place and current, but used the opportunity to remind Mr. Tolles that monthly maintenance of the emissions estimates was required by permit by the 15th of each month (for the 12-month rolling period preceding the month's end.)

SL observed no issues with equipment, material handling, storage, etc. Most efforts were directed at understanding the genesis and maintenance of records, the on-site material use/emission database, and familiarizing himself with on-site equipment and aligning this with the PTI.

PERTINENT SPECIAL CONDITIONS from PTI #24-05C

The following conditions apply to: EUCLEANUP

Emission Limits

	<i>Pollutant</i>	<i>Limit</i>	<i>Time Period</i>	<i>Equipment</i>	<i>Testing/ Monitoring Method</i>	<i>Applicable Requirements</i>
2.1	Acetone	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUCLEANUP	SC 4.3, SC 4.4	R 336.1224

Most recent 12-month rolling period estimate: **1.81 Tons**. See attached.

Process/Operational Limits

2.2 The permittee shall recover for shipment off site, in accordance with all applicable regulations, a minimum of 25 percent by weight of all acetone received and used in EUCLEANUP. (R 336.1224)

They record the acetone used in the field (minor amount) and assume the rest is used in the shop; they document the acetone put in the barrel for disposal/recycling; and estimate acetone lost. Records indicate typical recovery rates of about 75 - 80%.

2.4 The permittee shall keep the following information on a calendar month basis for EUCLEANUP:

- 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) A calculation determining the percent by weight of cleanup solvent reclaimed.
- e) Acetone emission calculations determining the monthly emission rate in tons per calendar month and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1224)

See attached. The printed sheet is actually a selected portion of a single sheet within the program. It's connected to other sheets with specific information (VOC content, etc.) for each component. Specific monthly inventory records are entered into the proper sheet; this appears to be properly converted into monthly estimates of VOC/Acetone tonnage in the sheet displayed/printed.

The following conditions apply to: FGFIBERGLASS

Emission Limits

	Pollutant	Limit	Time Period	Equipment	Testing/ Monitoring Method	Applicable Requirements
3.1a	Styrene	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFIBERGLASS	SC 3.5, SC 3.6, SC 3.7, SC 3.8, SC 3.9	R 336.1225, R 336.1205(3)
3.1b	VOC	9.3 tpy	12-month rolling time period as determined at the end of each calendar month	FGFIBERGLASS	SC 3.5, SC 3.6, SC 3.7, SC 3.8, SC 3.9	R 336.1702(a), R 336.1205(3)

Most recent 12-month rolling time period estimate: **6.79 tons VOC** and **6.65 tons styrene**. See attached.

Material Usage Limits

- 3.2 The styrene content of any resin used in FGFIBERGLASS shall not exceed 50.5 percent by weight. (R 336.1225, R 336.1702(a))

Per recordkeeping (spreadsheet) and MSDS's, no resins exceed 50.5% styrene.

- 3.4 The permittee shall capture all waste catalyst(s), and resin(s) used in FGFIBERGLASS and store them in closed containers. The permittee shall dispose of all waste catalyst(s) and resin(s) in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1224, R 336.1225, R 336.1702(a))

This appears to be so; "waste" resins are catalyzed and disposed as solid waste. Mr. Tolles was familiar with DEQ Waste Program staff and requirements.

Recordkeeping/Reporting/Notification

3.7 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (i.e. lamination resin, catalyst, etc.), including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1224, R 336.1225, R 336.1702(a))

MSDS's are onsite and pertinent data (VOC content, etc.) is captured in the emissions spreadsheet.

3.8 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in an recordkeeping, reporting or notification special condition. (R 336.1205(3), R 336.1225, R 336.1702(a))

See attached.

3.9 The permittee shall keep a separate record of the styrene monomer content for each shipment of resin received. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702(a))

They get a Certificate of Analysis for each lot/shipment and this is maintained in the spreadsheet for estimating emissions. See attached.

3.10 The permittee shall keep the following information for each calendar month for FGFIBERGLASS for monthly and annual emission calculations:

- a) The identity and amount (in pounds) of each resin used and the associated resin application method(s) used for each resin listed by the amount of each resin applied for each application method.
- b) The styrene content of each resin used.
- c) The identity and amount (in pounds) of each catalyst used on a calendar month basis.
- d) The appropriate emission factor for each resin and associated resin application method used based on the Unified Emission Factors listed in Appendix A.
- e) Styrene and VOC emission calculations determining the monthly emission rate of each in tons per calendar month, and the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

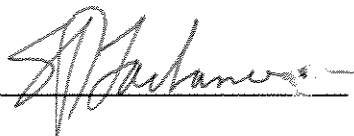
The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702(a))

See attached.

SUMMARY

Per review of the EI2013 MAERS submittal; on-site observations on September 4, 2014, and the attached records, SL concludes that the facility is currently in compliance with applicable air use requirements; and specifically with the requirements of opt-out PTI #24-05C.

NAME



DATE

9/9/14

SUPERVISOR



Attachments: Example Monthly Inventory Records (6/14-8/14)
12-month Rolling Emissions Estimates

