

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

B881543547

FACILITY: Clawson Tank Company		SRN / ID: B8815
LOCATION: 4701 White Lake Rd, CLARKSTON		DISTRICT: Southeast Michigan
CITY: CLARKSTON		COUNTY: OAKLAND
CONTACT: Peter Ricketts, Supervisor		ACTIVITY DATE: 03/08/2018
STAFF: Sebastian Kallumkal	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Onsite Inspection		
RESOLVED COMPLAINTS:		

On Thursday, March 8, 2018, I, Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) staff Sebastian Kallumkal conducted an unannounced, "scheduled" inspection of Clawson Tank Company (Clawson Tank) located at 4701 White Lake Road in Clarkston, Michigan. The purpose of the inspection was to determine the facility's compliance with the federal Clean Air Act, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the conditions of Permit to Install (PTI) No. 546-96.

At the facility I met Mr. Peter Ricketts, Supervisor, and Ms. Tracey Pagels, HR Manager. I introduced myself, stated the purpose of my inspection and presented identification credentials. Mr. Ricketts was not familiar with the permit requirements, so I provided him a copy of the PTI.

Clawson Tank manufactures shop-fabricated steel and fiberglass tanks (PERMA TANKS) for chemical storage and process (mixing). It manufactures both aboveground and underground tanks. These tanks range in size from 5000 to 30,000 gallons.

Initially we discussed the facility operations and permit conditions. PTI No. 546-96 covers the fiberglass lay-up operation. The permit contains opt out limits for individual and aggregate hazardous air pollutant (HAP) and volatile organic compound (VOC) emissions, so Clawson Tank can opt-out of obtaining a Title V permit.

The manufacturing process includes rolling/forming raw steel to the tank diameter, welding, pressurizing and testing for leaks using soap solution in water, and stand blasting. After this the tanks may be shipped as finished product or apply paint or fiber glass coating (lay-up operation). The paints used are 90% water-based.

The facility operates 2 shifts per day, Monday-Friday and seldom Saturdays (5 hr) and has about 25 employees.

After the pre-inspection meeting, Mr. Ricketts accompanied for an inspection of the facility. We went through each building focusing on equipment covered under the permit. Tank fabrication, forming and rolling (in Plant 3), painting, and machining all occur in one large building (Plant 7). Fiberglass lay-up operations occur in a separate building (Plant 9). Sand blasting is conducted in Plant 4. According to Mr. Ricketts, the facility has no boilers, emergency generators, or cold cleaners on site.

Tank Fabrication Area

Carbon Steel arrives in flat sheets. In the fabrication area, a large rolling machine loops the flat steel into the desired diameter shaft for the tank, and these tubes are welded together to a desired length. Similarly, the curved heads of the tank are rolled up in the fabrication area. Finally, the curved heads of the tank are welded to the shaft, and a complete single-layer steel tank is formed. The large rolling machine appears to be exempt from permitting requirements via Rule 285(2)(l)(i), and the welding equipment appears to be exempt from permitting requirements via R 285(2)(i).

After tank construction, grit blasting smooths the tank. The grit blaster was not operating during the inspection. Emissions from grit blasting are controlled by fabric filters, replaced as needed, from which grit is reclaimed. Filters were in place and appeared to be operating properly. The grit blasting appears to be exempt from permitting requirements via R 285(2)(l)(vi)(B).

Paint Area

If a tank is single-layer, painting occurs after grit-blasting. Otherwise the tank will go straight to fiberglass lay-up operations. The paint booth is a large room with two stack vents and filters. The filtered exhaust goes through a water bath and then to the ambient air through stacks. The filters are replaced as needed and appear to be operating properly. This room is connected to Plant 7. The opening to the Plant 7 is closed during paint application. There was no paint coating during the inspection. I inspected the stacks outside this room. They use airless paint guns. The guns are cleaned using MEK. The waste solvents are hauled away by Crystal Flash, every 3 months.

Records of paint usage are included in the overall VOC and HAP emissions for the facility. The records show that the paint usage was below 200 gallons a month. Submitted records show that the highest paint usage for a month was 151 gallons in July 2016, and 176.5 gallons in April 2017. Painting process appears to be exempt from permitting requirements via R 287(2)(c). Mr. Jeff Freeman, painter informed me about the painting process.

Machine Shop

The machine shop houses large steel fabrication equipment including a hole punch, shear, burn table, and press brake, which all exhaust indoors. The equipment appears to be exempt from permitting requirements via R 285(2)(l)(vi)(B).

Fiberglass Lay-Up Operation (PTI No. 546-96)

Clawson Tank's double-lined tanks have an inner layer of steel and an outer layer of fiberglass. The process of applying the fiberglass layer to the steel occurs in a separate building (Plant 9) that is completely enclosed and has two exhaust filters in place as per PTI No. 546-96 Special Condition (SC) 20. (*Note: SC 20 is given for two different SCs in the PTI.*) These filters are replaced as needed and appear to be operating properly; no opacity was observed from the fiberglass lay-up operation as per SC 16. Mr. Harry Lipka explained the fiberglass lay-up operations. I experienced chemical odor in this building. I informed Mr. Ricketts about it and my concern regarding employee exposure to these chemicals.

To add the fiberglass layer, first a fine mesh is placed on the outside of the steel tank. Mylar, a clear plastic, is placed on top of the mesh. Fiberglass is placed on the mylar and a resin and styrene mixture are applied. Wax plus a catalyst are applied at the end of the process. The facility uses only one type of resin. Daily recordkeeping is kept by hand of the time the fiberglass lay-up operation is occurring, as is the quantity of resin, styrene, catalyst, and wax used, per SC 14.

The process takes about 38-40 hours. Tanks are not removed from the lay-up operations until dry (2-3 days) as per SC 24. After curing, a vacuum is placed (24 hours) in the second layer to check for leaks, and holes are repaired. The final product is a double-walled tank with secondary containment.

At the corner of the Plant 9 they make the collar and riser for the tanks. They use fiber glass and putty for this process. The fiber glass particles are controlled by three filters. The filters are replaced as necessary. Mr. Bob Thomas explained this process.

Spent paint filters are disposed of in the dumpster as per SC 21, and disposal of waste materials is performed by Heritage-Crystal Clean LLC out of Taylor, MI as per SC 22, according to Mr. Ricketts.

Recordkeeping

According to records, Clawson Tank appears to be below all applicable VOC and HAP limits. Mr. Justin Groh provided me, by email, the necessary records. He converts the daily hand-kept records to monthly information on Excel spreadsheets. On April 15th he provided me with HAP and VOC records for 2016, 2017 and to March 2018, as well as monthly 12-month rolling records of VOC and Styrene emissions for these years, as required in SC 18 and SC 20.

Per SC 13 for VOCs, Clawson Tank has not exceeded its limit of 9 tons/year based on a 12-month rolling time period; the highest they've reached was 4.25 tons as of January 2017. As of March 2018, the 12-month rolling VOC emissions were 3.63 tons.

Per SC 14, Clawson Tank is permitted for 621 lbs/hour of resin usage. Each month the hourly resin usage was less than 100 lb/hr. Their highest annual tons of resin usage based on a 12-month rolling time period were 40.91 tons as of January 2018 and is well below their limit of 138.45 tons (276,900.0 pounds) (SC 14). The most hours they have operated the fiberglass lay-up operation has been 1162 hours in 2016 and 1173 hours in 2017. The highest monthly hours were 215.33 in March 2017. The annual lay-up operation hours are below their 2545 permitted operation hours per SC 15.

MDEQ-AQD has not requested verification of VOC and Styrene emission rates from the fiber glass layup operation. (SC 17)

Per SC 19, Clawson Tank HAP emissions are limited to 9 tons/year of a single HAP emission and 22.5 tons/year of all HAPs. The records show that the facility has emitted at most 2.48 tons/yr of a single HAP (styrene) and 2.91 tons per yr of aggregate HAPs as of January 2018.

Compliance Determination

Based on the inspection and records review, it appears that Clawson Tank is in compliance with the federal Clean Air Act, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the conditions of Permit to Install (PTI) No. 546-96.

NAME S. Kallemtal

DATE 4/24/18

SUPERVISOR

Joyce ZL