

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

B279324286

FACILITY: VALLEY CITY PLATING		SRN / ID: B2793
LOCATION: 3353 EASTERN SE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Dave Pelletier , Engineering Manager		ACTIVITY DATE: 02/12/2014
STAFF: David Morgan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM 208A
SUBJECT:		
RESOLVED COMPLAINTS:		

On February 12, 2014, AQD staff conducted an unannounced scheduled inspection of Valley City Plating located at 3353 Eastern Avenue in Grand Rapids. The purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations. Accompanying AQD staff was Dave Pelletier, Engineering Manager and Environmental Compliance Officer. A DEQ Inspection Brochure was provided to Mr. Pelletier.

FACILITY DESCRIPTION

Valley City is a plating "job shop" conducting final finishing of high-end metal furniture, motorcycle and gaming components, specializing in plating chrome, brass, and antique finishes. The facility consists of various buffing and polishing operations, two plating lines, and two lacquer spray booths. The company currently operates under PTI Nos. 683-80, 256-05, and Consent Order No. 32-2000.

COMPLIANCE EVALUATION

Nickel Chrome Plating Line:

The chrome plating line used to plate ferrous metal substrates is covered under PTI No. 265-05 and consists of various tanks including caustic/acid cleaning, caustic strip, activators, nickel chloride plating tanks and a single chromic acid plating tank. Many of the tanks, including the chrome plating tank are exhausted outside with no controls. The vented tanks, other than the chrome plating tanks, are exempt from permitting under Rule 290. The primary pollutant is sodium hydroxide. A manual hoist is used to move racks from tank to tank. This line is currently operating one shift, four days per week.

The chrome tank currently has a rectifier with a capacity of 10,000 amps. No changes have been made to this equipment since the last Air Quality Division inspection.

The one chrome electrolytic plating tank is subject to the Chrome NESHAP. The company complies with the NESHAP by using a wetting agent to maintain the surface tension below 45 dynes/cm. The wetting agent used is Benchbrite CR-1800 which is a fluorine surfactant. Records of the amount of wetting agent added, the time, the date, and the plating hours are recorded. The company determines the surface tension using a stalagmometer approximately every 20 hours of tank operation which is more often than the NESHAP required 40 hours of tank operation. Surface tension records from January 2013 to December 2013 were reviewed and no exceedances were noted (see attached records); the highest recorded surface tension was 34.5 dynes/cm.

As an area source the facility completes and maintains annual Ongoing Compliance Status Reports and surface tension measurement records. The chrome tank operates approximately 250-300 hours per year. Plating hours are determined by taking the bar (or rack) count and multiplying it by the plating time.

The company has a Operations and Maintenance Plan for the chrome tank including the stalagmometer and surface tension testing procedure. This was updated on January 2006. The company is operating the process in accordance with the operation and maintenance plan.

Dust Collection:

PTI No. 683-80 covers one fabric filter dust collector utilized to control dust from several polishing stations. The collector exhaust is directed back into the facility during the winter months. The control is precluded by a cyclone that was in use prior to the installation of the fabric filter. The collected material is disposed of on a monthly basis. There were no visible emissions from the this process.

A second small dust collector with permanent return air is used to capture polish wheel debris from another, smaller group of polishing stations. The collector is exempt from permitting per Rule 285(l).

Lacquer Booths:

There are two existing lacquer spray booths one called the "furniture" booth and the other called the "grille" or conveyor booth. Both booths are exempt from permitting under Rule 287(c). Coating usage on each booth for 2013 did not exceed 99 gallons per month which is well below the 200 gallon limit in Rule 287(c). The units are also exempt from the requirements of Rule 621 because VOC emissions were no greater than 669 pounds which is well below the 2,000 pound per month limit in the rule. See attached records. Both spray booths had filters installed properly and Brink HVLP guns were being used. Also see discussion below regarding lacquer booth emissions.

Strip Tank/Cold Cleaning:

This emission group includes a maintenance Safety-clean parts washer, a strip tank located in the conveyor spray room, parts wipe, and part of the slop drum (dirty solvent). Total VOC emissions from the stripping solvent was not greater than the 1,000 pound per month limit in Rule 290. It is noted that the company takes a credit for waste solvent in the "slop drum". However, the slop drum consists primarily of lacquer waste from the spray booths. The company is essentially over calculating VOC emissions from the lacquer booths and under calculating (slightly) emissions from the strip tank. The company is utilizing credits for waste streams across emission units. At this time, the company has provided sufficient documentation to verify compliance. No recordkeeping changes will be necessary unless emissions approach the 1,000 pound per month limit.

SUMMARY

Valley City is in compliance with all applicable requirements including Consent Order No. 32-2000. Attached to this report are records obtained during the inspection. It was noted to the company that Consent Order No. 32-2000 could be terminated upon written request.

NAME  DATE 2/28/14 SUPERVISOR PAB