

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

N151147531

FACILITY: System 2/90 Inc.		SRN / ID: N1511
LOCATION: 5350 Corporate Grove Boulevard, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Jim Post		ACTIVITY DATE: 01/09/2019
STAFF: David Morgan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

At 10:15 AM on January 9, 2019, Air Quality Division (AQD) staff, Dave Morgan, conducted an unannounced scheduled inspection of 2/90 Sign Systems located at 5350 Corporate Grove Boulevard in Cascade Township. The purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations as well as Permit to Install (PTI) No. 264-98. Accompanying AQD staff on the inspection was Jim Post, Facility Manager.

**FACILITY DESCRIPTION**

2/90 Sign Systems manufacturers interior signage primarily for commercial and institutional buildings. The facility consists of material manufacturing, paint or ink finishing and assembly operations. The source is a synthetic minor source for hazardous air pollutants (HAPs).

**COMPLIANCE EVALUATION**

The facility manufactures signs through various forms of cutting and shaping of metal and plastic materials. These processes are vented to a baghouse located inside the plant and in which exhaust air is released to the in-plant environment. These manufacturing processes are exempt from permitting under Rule 285(2)(l)(vi)(B).

Parts are painted in the sign coating process which consists of two quad spray booths, one rectangular spray booth, a hydrographic application process and two infrared ovens. All booths are operated independently. Each booth is controlled by a fabric filter; at the time of the inspection filters were installed properly on all booths.

The company uses "low volume lower pressure" (LVLP), gravity fed spray guns which only require a couple teaspoons of solvent to clean/purge the tips between color changes. The LVLP guns minimize overspray, and have an equivalent or better transfer efficiency as "high volume low pressure" (HVLP) guns. Since the company also uses HVLP guns and the LVLP guns have an equivalent or better transfer efficiency, the permit is being met.

The company uses coatings in small quantities (i.e. quarts at time) and maintains a stock around 2,000 different colors for service work. The company has very little paint waste. The company has two small solvent recovery stills, exempt under Rule 285(2)(u), that recycle solvent from paint waste. All purge/cleanup solvent is captured and goes into the still, along with waste paint. They only use one lacquer thinner for coating reduction and purge/cleanup therefore, they can easily recover most solvent used at the facility. Each reclamation still separates the solvent from the solids by heating the waste and condensing the solvent back into a 5 gallon bucket. The units are located in the paint mix room and are housed in a converted bench booth that serves as air ventilation for both the mix room and the stills.

The company is maintaining all records in accordance with the permit (records attached). Company records indicate the following from January 2018 through December 2018:

Pollutant	Actual Emissions	Limit	Compliance	Comments
VOC from coating operations	6.28 tons	29.7 tons per 12-month rolling	Y	
VOC from purge/clean-up	<2.0 tons	2.0 tons per 12-month rolling	Y	See below
Individual HAP	3.65 tons (toluene)	9 tons per 12-month rolling	Y	

Aggregate HAP	5.23 tons	25 tons per 12-month rolling	Y
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For the recorded time period, worst case emissions from purge/cleanup operations were 2.6 tons. However, the purge/cleanup material, Superior, Lac 1800 Reducer, is also used for thinning paint and is recovered in the solvent distillation process and then reintroduced back into the coating process. Because of the amount of material reclaimed and reused, VOC emissions from purge/cleanup operations are compliant. Per the most recent AQD inspection, the company is maintaining records of the amount of solvent that is added to the reclaim drum.

All stacks appeared to meet permitted stack requirements.

Additional Exempt Processes:

There is a screen printing and UV printing processes at the facility which could be considered exempt from permitting under Rule 287(2)(e), however the company is maintaining records to demonstrate compliance with Rule 287(2)(c). Records reviewed on site showed that less than 20 gallons of ink per month had been used from December 2017 through November 2018. Additionally miscellaneous chemical usage (primarily isopropyl alcohol) is documented as exempt under Rule 290. Company records showed that less than 98 lbs of isopropyl alcohol was used in any given month which is below the Rule 290 limits.

SUMMARY

2/90 Sign Systems is in compliance with all applicable requirements. Records obtained during the inspection are attached to the report in the AQD file.

NAME  DATE 1/24/19 SUPERVISOR 