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

N151130355

| 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: 07/16/2015                |  |
| STAFF: Kaitlyn DeVries                                 | COMPLIANCE STATUS: Compliance                        | SOURCE CLASS: SM OPT OUT                 |  |
| SUBJECT: The purpose of this Regulations.              | visit was to determine compliance with 264-98 and an | y other applicable Air Quality Rules and |  |
| RESOLVED COMPLAINTS:                                   |  |  |  |

At 1:15 pm on July 16, 2015, AQD staff Dave Morgan (DM) and Kaitlyn DeVries (KD) conducted an unannounced scheduled inspection of System 2/90 located at 5350 Corporate Grove Blvd in Cascade Township. The purpose of this visit was to determine compliance with PTI 264-98 and any other applicable Air Quality Rules and Regulations.

No visible emissions were observed from the stacks when observed prior to entry. The DEQ Environmental Inspections: Rights and Responsibilities brochure was presented and briefly discussed with Jim Post, Facility Manager. DM and KD left the facility at approximately 3:00 pm.

## **Facility Description:**

System 2/90 manufactures interior signs, primarily for commercial and industrial buildings. The company employs approximately 100 employees and operates one 8-hour shift per day, five days per week. The facility is a synthetic minor source for HAPS.

### **Compliance Evaluation:**

The facility manufactures many of the signs on site by cutting and shaping metal or plastic materials. The cutting/shaping process is vented to a baghouse located inside the plant, for which the exhausted air is released back into the in-plant environment. This process is exempt under Rule 285 (I)(vi)(B). The waste from the baghouse is disposed of in a dumpster.

Some of the non-painted plastic parts are inked or laser cut. The laser cutting process is done in one of two rooms which share an externally vented duct. This cutting process is exempt under rule 285(l)(vi)(C). The signage that is inked is exempt under rule 287(c)(i). Even though the inking process is exempt, no records were available for this as Mr. Post indicated they use very few bags of ink per month. Mr. Post will be asked to include this information in the records to show compliance with this exemption. An example MSDS of the ink can be found attached to this report.

The paint mixing room houses all of the stored paint containers, and the reclaim system for the solvents. This process is exempt under rule 285(u). The waste paint and waste solvent goes into this system, where it is recovered and able to be re-used. The liquid solvent is separated from the solid waste via a heating and condensation process. There is no external exhaust for this reclamation system. The mixing room is vented via the bench paint booth located in the room. A fabric filter was properly installed in this booth.

System 2/90 has two IR ovens located in the painting room, which operate at approximately 170 – 200°F. In addition to the ovens, there are two quad paint booths each exhausted through a centralized stack. Two other large booths were located in the paint room, one of which was not currently being used. All of the booths had properly installed and operating fabric filters. Per Mr. Post, the filters are changed daily, and the booth paper in the large booth is changed once per week. The stacks appeared to meet the permitted requirements. The painting process employs either HVLP or LVLP "low volume lower pressure" spray guns. The LVLP guns are gravity fed, which allows for minimal solvent for clean-up and subsequent minimal waste, which allows for them to have equivalent or better transfer efficiency. This also makes for quick color changes as the company stocks over 2.000 different colors to meet their client's needs.

#### Records:

Andy Boddy of CFR LLC. is still compiling the records as outlined in the permit. Mr. Post supplied the available records to staff for review off-site (see attached). A brief summary of the records can be found in the table below.

| Condition             | Value               | Limit     | Compliant |
|-----------------------|---------------------|-----------|-----------|
| 12-Mo. VOC Emission   | 9.27 tons           | 29.7 tons | Yes       |
| 12-Mo. Aggregate HAP  | 7.67 tons           | 22 tons   | Yes       |
| 12-Mo. Individual HAP | 5.42 tons (Toluene) | 9.0 tons  | Yes       |

The records showing the gallons of reducer used does not equal the amount of paint used, even though they are mixed at a 1:1 ratio. Per a telephone conversation with Mr. Post, stated the records of usage is logged when the drum is completely empty. This is accounting for all the solvent that is reclaimed as well. However, this is only accounting for drum size and not the amount of solvent placed back into the drum after reclamation. Mr. Post will be asked to keep track of the amount of solvent that is added to the drum, thus accounting for the amount that is reclaimed. This should alleviate the difference between paint usage and reducer usage. Additionally, Mr. Post will also be asked to keep proper records of the ink ensuring compliance with rule 287 (C)(i).

## **Compliance Determination:**

Based on the information observed during the inspection and the records reviewed, System 2/90 is currently in compliance with all applicable Air Quality Rules and Regulations as well as the conditions outlined in PTI 264-98.