

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

B033324953

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| <b>FACILITY:</b> IRWIN SEATING COMPANY  | <b>SRN / ID:</b> B0333               |
| <b>LOCATION:</b> 3251 FRUITRIDGE ROAD NW, GRAND RAPIDS  | <b>DISTRICT:</b> Grand Rapids        |
| <b>CITY:</b> GRAND RAPIDS   | <b>COUNTY:</b> KENT                  |
| <b>CONTACT:</b> James Wilson , Plant Manager  | <b>ACTIVITY DATE:</b> 02/26/2014     |
| <b>STAFF:</b> Jenifer Dixon   | <b>COMPLIANCE STATUS:</b> Compliance |
| <b>SUBJECT:</b> The purpose of this inspection was to conduct a scheduled inspection and to determine compliance status with respect to all applicable Air Quality Rules and Regulations. |                                      |
| <b>RESOLVED COMPLAINTS:</b>   |                                      |

This was an unannounced inspection. A copy of the "Environmental Inspections: Rights and Responsibilities" was supplied.

The purpose of this inspection was to conduct a scheduled inspection and to determine compliance status with respect to all applicable Air Quality Rules and Regulations. The facility is currently a Rule 208a source and has four Air Quality permits, Permit No. 618-77, 163-87, 271-91, and 1330-91, as well as utilizing some Rule 201 permitting exemptions.

JD arrived in the area of the facility at 1:20PM and left at approximately 2:50PM on February 26, 2014. No excess odors or opacity were observed during the inspection time. Mr. James Wilson, Facility Manager, provided pertinent information regarding the facility and the operations contained therein.

Irwin Seating (Irwin) is primarily a manufacturer of auditorium and stadium seating. The current manufacturing at the company includes metal working, which are exempt from Rule 201 permitting requirements under Rule 285(l)(vi) and welding operations, exempt from Rule 201 permitting requirements under Rule 285(i).

Irwin has currently has permits that cover the three powder coating lines (two permitted and one operating under an exemption), the wet-coat booths, the wood grinding, cutting and sanding stations including a laser cutter, sewing, hot melt gluing and wood gluing. These permits will be discussed in greater detail below.

#### **PTI No. 618-77 - Woodworking Equipment and associated Carter Day Filter System**

Woodworking operations consist of cutting, grinding, sanding, etc. The particulate is collected in the Carter Day filter system. The combined cfm is less than 30,000 cfm, which allows the system to operate under the Rule 201 permitting exemption, Rule 285(l)(vi)(C). The sawdust is collected in large haul away bins which are connected to the system with flexible ductwork.

The facility is operating in compliance with the conditions of the permit. Because of the nature of the operations and the small size of this equipment, this would now qualify for a Rule 201 permitting exemption, Rule 285(l)(vi)(C). On April 19, 2014 the facility sent in a permit void request for this permit.

#### **PTI No. 163-87 - Powder Coating Line (Powder 2)**

Powder Coating is now exempt from Rule 201 permitting requirements under Rule 287(d). The exemption covers all equipment utilized in the powder coating process, booths, control, and ovens.

The facility currently is in compliance with all conditions contained therein. Because of the nature of the operations, the powder coating operations would now qualify for a Rule 201 permitting exemption, Rule 287(d). On April 19, 2014 the facility sent in a permit void request for this permit.

#### **PTI No. 271-91 - Wood Furniture Coating Operations**

This permit covers nine (9) paint spray booths, two (2) dip stations (REMOVED), and five (5) glue roller/presses. All of the booths are located in one general area of the facility, but there are two products that are made. There are five (5) booths on the main finish line. The flat-work uses primarily water-based coatings and has one (1) production lines and well as a sample booth. These parts are typically the seat and back of the chair and are air-dried. The arm block area finished the arm rests of the chair and has three (3) spray booths and a large dehumidifier that is used to cure parts.

The glue roll coaters use typical carpenter's wood glue which is pumped from the tote to the line. Some of the glue is florescent under a black light, which enables them to note any errors or excess glue. In the seat assembly area foam is cut using serrated knives and glued to the chairs.

- SC 14 - The volatile organic compound (VOC) emission rate from the wood furniture coating process consisting of eight paint spray booths, two dip stations and three glue rollers/presses, hereinafter "coating process," shall not exceed 45.0 pounds per hour nor 30 tons per year.

*Based on the updated records received on April 18, 2014, the facility is operating with emissions far below those allowed by the permit. The yearly emissions for 2013 were 2.03 tons of VOCs. Additionally, emissions for January – March 2014 are less than one ton. Irwin is currently using all coatings and adhesives that would be considered water-based. Therefore the emissions from the coating operations are far less than when the permit was issued.*

- SC 15 - There shall be no visible emissions from the coating processes.

*No visible emissions were observed from the coating operations before or after the inspection.*

- SC 16 - Rules 1001, 1003 and 1004 – Verification of VOC emission rates from the coating processes by testing, at owner's expense, in accordance with Commission requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. Prior approval of test would be required.

*No testing has been requested at this time.*

- SC 17 - Applicant shall keep a separate record for each calendar month of the usage rate of each coating, reducer, and glue used for the coating process. Further, applicant shall keep a record of the pounds of Volatile Organic Compounds (VOC) per gallon of coating and glue, (minus water), as received, and the density of each reducer. This information shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

*Based on the records received on April 18, 2014, records were requested via e-mail. Monthly records of usage and VOC content are being maintained electronically. The facility is maintaining the appropriate records to show compliance with this condition.*

- SC 18 - Applicant shall calculate the actual volatile organic compound (VOC) emissions rates from the coating process for each calendar month, using the method detailed in Appendix A, or equivalent method. This information shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

*Based on the records received on April 18, 2014, the records are being maintained as required by the permit condition. The facility is utilizing an appropriate method.*

- SC 19 - Applicant shall not operate any paint spray booth unless the associated dry filters are installed and operating properly.

*All dry filters were in place and operating properly. Filters on the spray booths are fabric and are changed on an as needed basis.*

- SC 20- The exhaust gases from the coating processes shall be discharged unobstructed vertically upwards to the ambient air from 13 stacks, each at an exit point not less than 31 feet above ground level.

*Based on visual observations of the stacks, these parameters appeared to be met as required by the permit condition. However, the stacks were not physically measured.*

SC 21 - Applicant shall not substitute any coatings, reducers, glue, and/or other raw materials for those described in this permit application which would result in an appreciable change in the quality or any appreciable increase in the quantity of the emission of an air contaminant without prior notification to and approval by the Air Quality Division.

*All changes have resulted in a significant decrease in emissions. As stated above, the facility has moved to primarily spraying water-based coatings.*

## PTI No. 1330-91 - Three Metal Powder Coating Booths (Powder 1)

Powder Coating is now exempt from Rule 201 permitting requirements under Rule 287(d). The exemption covers all equipment utilized in the powder coating process, booths, control, and ovens.

The facility currently is in compliance with all conditions contained therein. Because of the nature of the operations, the powder coating operations would now qualify for a Rule 201 permitting exemption, Rule 287 (d). On April 19, 2014 the facility sent in a permit void request for this permit.

**Powder 3** consists of two powder coat booths and three associated ovens were moved from the former Country Roads facility to this location and would also be exempt under Rule 287(d). This line is only used occasionally for special projects.

During the inspection, JD spoke with Mr. Wilson regarding voiding the permits that are now covered under Rule 201 permitting exemptions. Previously there appeared to be the perception that voiding these permits could somehow affect the flexibility of the facility to manufacture their products. This is not the case. There is no benefit or detriment to the facility in keeping or voiding these permits, except to make compliance easier and more straightforward.

Based on observations made at the time of the inspection, Irwin appears to be correctly utilizing Rule 201 exemptions and is in compliance with associated permits and all applicable Air Quality rules and regulations. No further action is necessary at this time.

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After multiple e-mail and telephone correspondences regarding recordkeeping, the facility requested a face to face meeting to discuss questions that had come up during the process. On April 14, 2014 JD met with company officials – James Wilson, Kevin Thelen, and Marcia Hollenbeck.

During the gathering of records, facility personnel realized that not all of the individual components that are required by the permit to be tracked (coating, stains, lacquers, adhesives, and solvents) were being tracked. The facility has access to all of the usage information, but much of it was not reported in MAERS and had not been included in the facility record-keeping submitted to JD previously. Mr. Wilson committed to having the additional information submitted to JD by close of business on April 18, 2014. This information was received on as committed to.

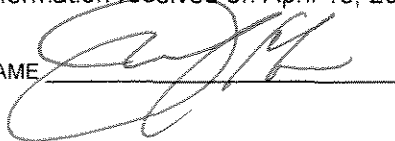
Other points of discussion included the following:

- What material usage needs to be tracked? The answer is all materials listed in the permit.
- What method should be used for determining VOC content of the materials? For example, is it OK to use the VOC content for material with the highest content and assume a worst case for the remainder? This is not OK because the permit is looking for actual values.
- Can purchases be used to determine usages? The answer is no. The permit requires actual usages. Facility personnel and JD discussed different ways to ensure that these numbers are as correct as possible. Facility will determine what works best for them.
- MAERS errors. Will this need to be updated? The answer is yes. JD will ensure that the proper information is input into MAERS.

JD provided copies of the active permits and facility personnel and JD discussed the status of the permits that cover equipment currently covered by exemptions. Mr. Wilson stated that these will be requested to be voided.

Any changes in the status of permits or emissions information that resulted from this meeting, or subsequent information received on April 18, 2014, has been noted in the main body of this report.

NAME



DATE

4/22/14

SUPERVISOR

PMB