

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

P058628467

FACILITY: DESIGN FABRICATIONS, INC.		SRN / ID: P0586
LOCATION: 1100 E. MANDOLINE AVE. Suite 100, MADISON HTS		DISTRICT: Southeast Michigan
CITY: MADISON HTS		COUNTY: OAKLAND
CONTACT: Jessica Roberts , Chief Operating Officer		ACTIVITY DATE: 01/28/2015
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Pending	SOURCE CLASS: Minor
SUBJECT: Self initiated inspection.		
RESOLVED COMPLAINTS:		

On January 28, 2015, I conducted an unannounced self-initiated inspection of Design Fabrications, Inc. (DFab) located at 1100 E. Mandoline, Suite 100, Madison Heights, Michigan. This facility is uniquely identified with the **SRN of P0586**. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); and the administrative rules.

INSPECTION

I entered the site and met with Ms. Jessica Roberts, Chief Operating Officer, and Mr. Dave Dunaj, Director of Quality and Manufacturing. I presented AQD photo employee identification and explained the purpose of the inspection. Ms. Roberts and Mr. Dunaj escorted me throughout the inspection of the facility. This is the first time this facility has been inspected by the Air Quality Division.

DFab manufactures and installs displays for retail establishments such as Gardner White, Kroger, La-Z-Boy and Whole Foods (reference: <http://dfabdesign.com/portfolio.html>). I observed three (3) spray booths, two (2) spray adhesive coating lines, four (4) large-format inkjet printers and a fabrication area, which consisted of various machines including saws, panel saw, surface planer, miter saw, and CNC tables that are used to cut wood, wood products and plastics.

Each of the three spray booths uses dry filters to control particulate emissions. Each spray booth exhausts through a single stack attached to each individual spray booth for a total of three individual stacks. The exit point of each exhaust stack appeared to be approximately 1.5 times the height of the building. A review of coatings and solvent purchases for 2014 appeared to indicate that, on average, the monthly coating use rate has been not more than 200 gallons, as applied, minus water, per month. The purchase records we reviewed did not provided enough detail to demonstrate that the actual monthly coating use rate has been not more than 200 gallons, as applied, minus water, per month during DFab's busy season, which is typically from May through October. DFab has implemented recordkeeping to demonstrate compliance with the R 336.1287(c) exemption from R201 (R 336.1201(1)). On February 23, 2015, I observed that the recordkeeping had been implemented. Nevertheless, DFab management has applied for a R201 site specific Opt-Out permit to ensure the facility can maintain compliance with R201 during peak production months. The air use permit application has been received by the permit section in Lansing and is currently under review.

A review of adhesive purchase records appears to indicate that each of the two adhesive coating lines has an average application rate of less than 2 gallons per day. The emissions

released from each adhesive coating line are released only into the general in-plant environment. This activity appears to be exempt from R201 per R 336.1278(a). The records I reviewed did not provided enough detail to demonstrate that the actual daily adhesive application rate has been not more than 2 gallons per day during DFab's busy season. Therefore, DFab management has included the two adhesive coating lines in their air use permit to install application. Furthermore, DFab has initiated recordkeeping to demonstrate compliance with the R 336.1278(a) exemption from R201. On February 23, 2015, I observed that the recordkeeping had been implemented.

Particulates created during machining are collected by a cyclone and baghouse, which vents emissions into the general in-plant environment. The cyclone and baghouse appears to be exempt from the permit requirements of R201 per R 336.1285(l)(vi)(B). I did observe a small amount of collected contaminants outside on the ground below and adjacent to the control device. I discussed the requirement to prevent the release of collected contaminants into the environment. Ms. Roberts and Mr. Dunaj verbally committed to correcting this issue in a timely manner. Per a follow up meeting on February 23, 2015, I was informed that now all collected contaminants were bagged before disposal. The area cleanup was pending more favorable weather conditions. I'm allowing a few extra weeks to clean up the small amount of debris because this winter has exceptionally cold and the completion of the cleanup has to wait for the snow to melt.

As mentioned above, DFab uses four large-format inkjet printers. These four printers are located within a permanent total enclosure to control dust and humidity. The atmosphere in the print room is cleaned, humidified and vented back into the print room. The inkjet inks are cured either with visible light or ultra-violet light. A review of the ink MSDSs appears to indicate that these light-cured inks contain sub-de minimis, or non-detectable, amounts of VOCs. The printers appear to be exempt from R201 because there do not appear to be any appreciable contaminant emissions associated with this process. Nevertheless, DFab management has included the process description in the air use permit to install application to provide the permit section the opportunity to determine regulatory applicability.

CONCLUSION

Per information obtained during this inspection, it appears that per a monthly average each spray booth and adhesive coating line is capable of being exempt from the permitting requirements of R336.1201(1). Due to the potential to exceed the exemption coating use and adhesive application rates during periods of peak production, Design Fabrications has elected to apply for an air use permit to install. The applicability of R201 to the large-format inkjet printers shall be determined during the permit review process. Because actual use records were not available to demonstrate the company's exempt status from R201, the compliance status shall be listed as pending until the permit review process has been completed.

NAME

Bob Dunaj

DATE

3/15/15

SUPERVISOR

*CJE**3/13/15*