

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

ACTIVITY REPORT: Self Initiated Inspection

FY 2015 Insp-

U63141411327751

FACILITY: Glass and Mirror Craft Industries	SRN / ID: U631414113
LOCATION: 48230 West Road	DISTRICT: Southeast Michigan
CITY: Wixom	COUNTY: OAKLAND
CONTACT:	ACTIVITY DATE: 10/07/2014
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance
SOURCE CLASS:	
SUBJECT: FY 2015 inspection of Glass and Mirror Craft Industries	
RESOLVED COMPLAINTS:	

E-file: U-63-14-14113_SAR_2014 10 07

Glass and Mirror Craft Industries (U-63-14-14113)
48230 West Road
Wixom, Michigan 48393-3675

Rule 336.1287(c) paint spray booths (1. 5 ft. width x 5 ft. depth * 5 ft. height and 2. 20 ft. width x 5 ft. depth 5 ft. height)

On October 07, 2015, I conducted a level 2 self-initiated inspection of Glass and Mirror Craft Industries ("GMC Industries"), located at 48230 West Road, Wixom, Michigan 48393-3675. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451 and Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

During the inspection, Mr. Tony Moore (Phone: 248-624-5050-ext. 218; Fax: 248-624-6988; E-mail: tmoore@glassandmirrorcraft.com), Plant Manager, assisted me.

Glass and Mirror Craft Industries ("GMC Industries") moved into this building about 2002. GMC Industries is in the business of glass fabrication involving cutting, polishing, insulating, tempering (heat treatment), laminating, etc.

Glass tempering

One IANUA electric glass tempering furnace is present. The furnace operates at 670 °C (average). The residence time in the furnace depends on thickness of glass. The hot glass is air quenched.

The glass tempering process is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1282(a) because the furnace is electrically heated.

CNC tables (2)

Large glass pieces are cut using CNC cutters. No emissions controls and the emissions are released to in-plant environment.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (l).

Polishing machines (6)

Six glass polishing machines are present. No emissions controls and the particulate

emissions are released to in-plant environment.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (l).

Paint spray booths (2)

Two paint booths (1. 5 ft. width x 5 ft. depth * 5 ft. height and 2. 20 ft. width x 5 ft. depth 5 ft. height) with back-draft dry filter systems are present. While the small booth is mostly used for color matching (production painting is outsourced), the large booth is used for painting in the glass insulation department.

10-15 gallons per month (<< 200 gallons per month) of the paint materials are sprayed. The booths are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1287(c). The booths are a small source of VOC emissions.

Most paints are water based although some paints are solvent based.

I asked Mr. Moore to install the filters such that they fit, at all times, snugly without gaps and holes. I also asked him to keep records of paint and solvent usage. I asked him to change or check filters when the pressure drop is out of the ordinary for good working conditions.

Glass drilling and milling machines

Glass pieces are drilled and milled using CNC machines. Soaking water flow is used for cooling tools as well as particulate emissions control. The particulate emissions are released to in-plant environment.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (l).

Glass insulation manufacturing lines (2)

Two glass insulation lines (one manual and one automated) are present. No emissions controls and the particulate emissions are released to in-plant environment.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (l).

Silkscreen printing machines

Silkscreen printing machines are present.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1287 (e).

Cold-cleaner

There is one 3'x2' parts cold-cleaner with spray a brush and a solvent tank. The cold-cleaner is subject rule 336.611 or 336.1707 depending on if it is new or existing. A cold-cleaner is exempt from Rule 336.1201 pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Mechanically assisted lid was closed during the FY 2015 inspection.

Gray Mills 2RE49 solvent (Graymills Corporation of Chicago 800-424-9300) is used

The Cold-cleaner is NOT Subject to: 40 CFR, Part 63, Subpart T, NESHAP/ MACT T, since solvents containing halogenated compounds are not used.

During FY 2015 inspection, I gave DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules. I asked the company to follow the common sense work practice in the procedures.

100% VOC solvent; 97% aliphatic petroleum distillates. Flash Point (FP) = 145 °F Tag CC. Auto Ignition = NA °F. Boiling Point (BP) = 360-410 °F @ 760 mm Hg. Vapor Pressure (VP) = NA mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 0.8. Density (ρ) @ 68 °F = 800 grams / liter. Flammability range = 0.9 %v (LEL) – 7%v (UEL).

Conclusion

Two paint spray booths, several glass cutting / grinding CNC machines, etc. and one glass tempering furnace are present. All process equipment and processes are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rules 336.1285, 336.1287, 336.1282, etc.

NAME

S. L. Hannahell

DATE

11/12/2014

SUPERVISOR

CTE