

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

N086442720

FACILITY: Herman Miller Spring Lake Campus - 171st & Hickory	SRN / ID: N0864
LOCATION: 18558 171st Ave., SPRING LAKE	DISTRICT: Grand Rapids
CITY: SPRING LAKE	COUNTY: OTTAWA
CONTACT: Fred Gordon , Environmental Manager	ACTIVITY DATE: 12/14/2017
STAFF: Tyler Salamasick	COMPLIANCE STATUS: Compliance
SUBJECT: FY 2018 Minor source inspection.	SOURCE CLASS: MINOR
RESOLVED COMPLAINTS:	

Background

Herman Miller Spring Lake Campus (Herman Miller) SRN: N0864 is a furniture manufacturing facility that specializes in manufacturing office furniture. The production facility is located at 18558 171st Ave and 17170 Hickory Street, Spring Lake, Michigan 49456. Herman Miller is located in a primarily industrial area with the nearest residential structures approximately 1000 feet east of the facility. The facility was inspected on 12/14/2017 by Tyler Salamasick, Environmental Quality Analyst of the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD). The purpose of this inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) and the Air Pollution Control Rules. Herman Miller's Spring Lake Campus does not have permits with the MDEQ. The facility formerly had permits for coating lines, dust collectors and paint stripping. The majority of these permits were voided in the late 1990s. The facility was a Title 5 facility until the ROP was voided in early 2000 (see previous inspector's notes). Herman Miller is a true minor source of air contaminants and currently operates under permit exemptions.

Inspection

I arrived at 18558 171st Avenue at approximately 9:30 am on 12/14/17. Upon arrival, I presented my State of Michigan identification card, informed the facility representative of the intent of my inspection and was permitted onto the site. Fred Gordon Senior Environmental Specialist is the lead contact for environmental compliance. He drove up to meet me after he was informed of my arrival. Fred showed me the facility, which includes the 18558 171st Ave building and the 17170 Hickory Street building. These buildings are on properties that are adjacent, and were previously determined to be the same source.

Process 171st Ave

The first area inspected was the shipping and receiving area. No significant emissions appeared to be generated by sources in this area of the facility. The shipping and receiving area was adjacent to the cutting stations. Herman Miller has multiple metal cutting stations. The facility receives metal base components at various stages of completion. The products include preformed steel, metal blanks, precut lengths of metal and metal coil. Depending on what products is being made, the metal is worked on at various different stages. The metal cutting utilized laser cutting and is vented through the equipment's particulate control system. Any emissions from the control are vented to the indoor air. This process does not appear to emit particulate contaminants to the outside air. The cutting process appears to meet permit exemption R 336.1285(2)(l)(vi)(B) which in part states ...

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following: ...

... (vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper board, wood, wood products, stone, glass, fiberglass, or fabric which meets any of the following: ...

... (B) Equipment that has emissions that are released only into the general in-plant environment.

In addition to cutting, some parts are also bent and or stamped. The facility has some mid-sized dies. The dies utilize the coiled metal. This large coil of metal is straightened out and fed into the press. As it passes through the die hits and shapes the metal. Prior to striking the metal a lubricant is misted onto the part. This process appears to be exempt from permitting pursuant to R 336.1285(2)(l)(i) and (ii)

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:...

... (l) The following equipment and any exhaust system or collector exclusively serving the equipment:

(i) Equipment used exclusively for bending, forming, expanding, rolling, forging, pressing, drawing, stamping, spinning, or extruding either hot or cold metals.

(ii) Die casting machines.

Some of the stamped parts are also spot welded. Herman Miller has multiple welding stations. The welding process emits small quantities of particulate matter. The processes were not vented directly outside and appear to be exempt from permitting pursuant to R 336.1285(2)(i).

Once the components are fabricated, they are powder coated. The powder coating process replaced the former autophoretic coating dip tank. The facility's powder coating equipment appears to exempt from AQD permitting per rule R 336.1287(2)(d) which in part states...

... (2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following: ...
 ... (d) A powder coating booth and associated ovens, where the booth is equipped with fabric filter control. The fabric filter control shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the owner or operator shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.

The powder coating operations also have an associated three rack burn off ovens. Herman Miller previously demonstrated that the ovens are Rule 290 exempt if they are operated with an afterburner with a minimum temperature of 1400F. I inspected one of the ovens after burner charts. The chart indicated that the control equipment was operated at 1400F while the oven is in use. Based upon the available information, the control equipment appeared to be operated correctly.

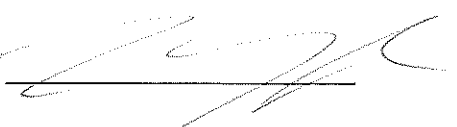
The final area of production at Herman Miller was the assembly area. In the assembly area, various value added components were added to the furniture. This included but was not limited to counter weights, rubber pads, drawer components. Some of the components were attached with hotmelt adhesive while other components required an adhesive labeled seal bond 150 HV. The facility had multiple 55 gallon drums of seal bond 150 at one of the assembly areas. The drums were labelled with a danger warning that the material may cause reproductive harm. Seal Bond adhesives, sealants, coatings lists the material as solvent free. This process does not appear to generate a significant amount of VOC emissions.

After inspecting the 171st building, we went to the Hickory building. This building had similar operations as 171st. The facility is slightly smaller, but still does stamping, cutting, welding, powder coating, rack burn off and assembly. This facility also has fabric cutting and assembly. The facility does not appear to conduct any fabric coating.

Conclusion

It appears that Herman Miller is in compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) and Michigan's Air Pollution Control Rules

NAME



DATE

2/6/18

SUPERVISOR

