DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: On-site Inspection

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FACILITY: Stanek Rack Company		SRN / ID: P1450	
LOCATION: 4786 Bellevue Street, DETROIT		DISTRICT: Detroit	
CITY: DETROIT		COUNTY: WAYNE	
CONTACT: Joe McClelland, General Manager		ACTIVITY DATE: 04/17/2024	
STAFF: Samuel Liveson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: Minor	
SUBJECT: Inspection of a minor source.			
RESOLVED COMPLAINTS: C-24-01098			

Introduction

On Wednesday April 17, 2024, I (AQD staff Sam Liveson) conducted an unannounced, scheduled inspection of Stanek Rack Company (SRC), located at 4786 Bellevue Street in Detroit, Michigan. The purpose of this inspection was to determine the facility's compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and the Michigan Air Pollution Control Rules (Rules). The inspection was in response to Complaint No. C-24-01098 received on 4/16/24.

Pre-Inspection Meeting and Facility Overview

Arrival

The inspection was unannounced. I arrived at the facility at about 8:55 AM. At the facility, I met with Joe McClelland, General Manager and Owner. I provided by state-issued identification and explained that I was here to conduct a routine unannounced inspection. We had a pre-inspection meeting where I explained that we had received an odor complaint, and that I wanted to understand SRC's operations and whether they may be causing odors. Joe explained equipment and operations and provided a walkthrough of the facility.

General Facility Overview

SRC is a tooling supplier for surface finishing. From talking with Joe McClelland, it appears the building was purchased in 2012. SRC manufactures both plating racks and painting racks. SRC receives raw material for rack construction such as copper and steel bar stock and round stock. As part of the manufacturing process, metal fabrication occurs such as welding, forming, and cutting. Additionally, racks are surface coated with a plastisol poly-vinyl chloride (PVC) coating in two dip tanks and an associated cure oven.

SRC will also repair used racks. As part of the rack repair process, a burn off oven is used to burn the plastisol PVC layer off the racks. Additionally, stripping and sand blasting is used to clean the metal, and then the rack is re-coated.

There are no cold cleaners, emergency generators, or boilers.

Compliance Background

AQD has not previously inspected this facility. SRC has no outstanding violation notices.

Facility Walkthrough: Rack Manufacturing Equipment

Machining Equipment: Rule 285(2)(I)(vi)(B)

I observed metal tooling equipment and presses. Joe explained that metal shearing and metal forming occurs. I observed a laser cutting machine that exhausts to an indoor Torit dust collector. This equipment appears to be exempt from obtaining a Permit to Install per Rule 285(2)(I)(vi)(B) for machining equipment that vents into the general in-plant environment.

Welding: Rule 285(2)(i)

Metal welding occurs on site. Exhaust vents externally. This appears exempt from obtaining a Permit to Install per Rule 285(2)(i) for welding equipment.

Coating Operation: Rule 287(2)(c)

https://intranet.egle.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=248... 6/4/2024

I observed the two dip tanks on site and the one associated oven. Joe explained that the first dip tank has an adhesive primer, which is cut with methyl ethyl ketone (MEK). The second dip tank contains plastisol. Dip tanks appear are underground. Panels covering the tanks are at floor level, and racks are lowered into the tanks to be coated. Both tanks appear to be covered when not in use. No spinning occurs. The oven is natural gas-fired and exhausts to ambient air.

Talking with Joe, the coating process appears to be: (1) racks are dipped into the adhesive primer; (2) racks are put in the oven for preheating and curing; (3) racks are dipped into the plastisol; (4) racks are put into the oven to cure.

Rule 287(2)(c) Requirements and Compliance Status

Below are the requirements of Rule 287(2)(c) and an explanation of the facility's compliance status.

Rule 287(2)(c)(i), (iii): Use no more than 200 gallons, as applied, minus water, per month; keep monthly use records for the most recent 2-year period.

COMPLIANCE. On April 22, 2024, Joe provided monthly gallons of plastisol used in the second dip tank. The most gallons used were 134.55 in March of 2023. For the first dip tank, Joe provided purchase records of primer indicating that 110 gallons were purchased in January 2023, and previously to that, primer was last purchased in 2017, so that it appears several gallons are used per month. Purchase records of MEK for the last two years also indicate 330 gallons were purchased throughout 2023, or 27.5 gallons per month.

AQD used discretion regarding not having monthly use records for MEK and primer because of the low quantities of these coatings used. However, it is necessary for the facility to keep monthly usage records in the future.

Monthly plastisol usage records, along with purchase records for MEK and primer, indicate that the facility uses less than 200 gallons of coating per month, so that the coating operations appear to be exempt from obtaining a Permit to Install per Rule 287(2)(c) for surface coating lines using less than 200 gallons per month, minus water, provided monthly records are kept.

Rule 287(2)(c)(ii): Exhaust systems serving spray equipment are operated properly. NOT APPLICABLE. The coating operation does not use spray equipment.

Facility Walkthrough: Rack Repair Equipment

Stanek Rack will repair used racks as a service. The repair process involves burning off the plastisol PVC; additional metal cleaning via sand blasting; sanding the racks; and re-coating the racks.

Burn Off Oven: Rule 201

To repair used racks, the racks are burned off in a long, slow bake over about 8 hours. I observed the burn off oven on site. It was operating during the inspection. It is natural gas-fired. I observed a primary burner temperature of 477 °F, and an afterburner temperature of 970 °F at 9:49 AM. The afterburner temperature had a label indicating that the setpoint is 1450 °F. Joe explained the afterburner temperature will continue climbing and gets to 1100 or 1200 °F. We observed the afterburner stack from the back of the building. The stack is located on the facility roof. It exhausts vertically and is obstructed by a rain cap. We discussed how this burn off oven may be causing odors. The facility will sometimes avoid using the burn off oven when there are overcast skies so as to avoid odors.

Rule 201 Requirements and Compliance Status

Below are the requirements of Rule 201 and an explanation of the facility's compliance status.

Rule 201(1): Except as allowed in R 336.1202, R 336.1277 to R 336.1291, or R 336.2823 (15) a person shall not install, construct, reconstruct, relocate, or modify any process or process equipment, including control equipment pertaining thereto, which may emit any of the following, unless a permit to install that authorizes such action is issued by the department.

(a) Any air pollutant regulated by title I of the clean air act and its associated rules, including 40 C.F.R. §51.165 and §51.166, adopted by reference in R 336.1902. (b) Any air contaminant.

NON-COMPLIANCE. The facility does not have a Permit to Install for the burn off oven on site. The oven does not appear to be exempt from obtaining a Permit to Install. The facility will receive a violation notice for installing the burn off oven without a Permit to Install.

Shot Blast Cleaners: Rule 285(2)(I)(vi)(C)

I observed two cabinet shot blast cleaners using aluminum oxide pellets which exhaust outdoors. It appears these blast cleaners are used for repairing racks. After the rack plastisol PVC is burned off, sand blasters remove any additional plastisol coating still remaining on the rack. Joe and staff opened the indoor baghouse associated with the first shot blast cleaner. Bags were in place. Staff explained bags are replaced manually when they tear, and replacement bags are on site. I observed the outdoor baghouse associated with the second shot blast cleaner. I observed a barrel underneath the baghouse for collecting particulate. The baghouse appears to be operating properly. Exhaust vents downward from the baghouse. These shot blast cleaners appear to be exempt from obtaining a Permit to Install per Rule 285(2)(I)(vi)(C) for shot blasting equipment that exhausts outdoors and is controlled by an appropriately designed and operated fabric filter.

Conclusion

Based on the AQD inspection and records review, SRC will receive a violation notice for installing its burn off oven without a Permit to Install per Rule 201. Otherwise, the facility appears to be in compliance with the federal Clean Air Act; Michigan NREPA; and the Michigan Air Pollution Control Rules.

NAME AR DATE 6/4/24 SUPERVISOR JK