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

N734535632

FACILITY: RAINBOW COATINGS OF MICHIGAN		SRN / ID: N7345
LOCATION: 2716 LIPPINCOTT BOULEVARD, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Frederick Leek, Owner		ACTIVITY DATE: 07/20/2016
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 7/20/2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an unannounced inspection of Rainbow Coatings of Michigan, which was last inspected by AQD in 2014.

Environmental contact:

Fred Leek, Owner; 810-877-7131; fredleek@rainbowcoatingsmi.com

Facility description:

Rainbow Coatings of Michigan (Rainbow Coatings) is a coater of metal parts, doing business primarily in the architectural field.

Emission units:

Emission units (as identified in permit application & MAERS)	Flexible group (from updated General Permit to Install)	Gen. PTI or Rule No.	Compliance status
EUPAINTLINE1	FG-COATING* and FG-SOURCE**	98-04	Compliance
EUPAINTLINE2	FG-COATING* and FG-SOURCE**	98-04	Compliance
EU-POWDERLINE	FG-COATING* and FG-SOURCE**	98-04	Compliance

*FG-COATING: One or more coating lines and all associated purge and clean-up operations, where each coating line is a single series in a coating process and is comprised of one or more coating applicators, any associated flash-off areas, drying areas, and ovens where one or more surface coatings are applied and subsequently dried or cured.

**FG-SOURCE: All coating lines and all associated purge and clean-up operations at the stationary source. This includes any coating line covered by this or any other general permit or permit or any coating line exempted by Rule 287 and/or Rule 290 from the requirement to obtain a permit to install.

Regulatory overview:

Rainbow Coatings has a General Permit to Install for a coating line No. 98-04. issued on 4/12/2004. The conditions of the General Permit were updated in December 2010.

This facility is considered to be a true minor source, rather than a major source of air emissions. A *major source* has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. *Criteria pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is also considered a minor or area source for Hazardous Air Pollutants (HAPs), because it was not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

Fee status:

This facility is not a Category I fee subject source, because it is not a major source for criteria pollutants. It is not a Category II fee-subject source because it is not a major source for Hazardous Air

Pollutants (HAPs), nor is it subject to federal New Source Performance Standards. Additionally, it is not Category III fee-subject, because it is not subject to federal Maximum Achievable Control Technology standards.

The facility is required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

This facility is located on Lippincott Boulevard, slightly east of Dort Highway, in the former Coors Distribution Plant. The surrounding area is a mixture of commercial and light industrial businesses. The nearest residences are about 600 feet to the northwest, 900 feet to the south, 800 feet to the east, and 900 feet to the northeast.

Recent history:

Rainbow Coatings began operating here in 2005. It was inspected by AQD in 2005, 2006, 2008, and 2014. No violations were found. There are no air pollution complaints on file for this facility.

Arrival:

This was an unannounced inspection. I was accompanied by two DEQ Student Interns, Ms. Katie Murphy, and Ms. Leah Bectel, for educational purposes.

Prior to arrival, we checked for odors on Ronn Drive, about 600 feet east of the plant. I detected paint odors which ranged from barely detectable to distinct and definite, at 1:16 PM. No residences are located on Ron Drive, however there are residences about 300 feet further east. Weather conditions were sunny, humid, and 88 degrees F, with winds out of the west at about 10 miles per hour. These odors were not found sufficient at this time to be causing a violation of Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

We drove to the plant itself, and arrived at 1:21 PM. No odors were detected in the plant parking lot, and no visible emissions could be seen. We met with Mr. Frederick Leek, owner of the facility. I explained the purpose of our visit. I provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedure.

I also brought along a copy of the DEQ card on the federal boiler NESHAP regulations. Mr. Leek indicated that they have no boiler onsite, though, just a water heater, residential in size. This facility therefore does not appear subject to the area source boiler regulation, 40 CFR Part 63, Subpart JJJJJJ.

I explained that we had detected paint odors downwind, several minutes prior. Mr. Leek mentioned that there is a nearby building in the industrial area, where painting of vehicles is occasionally done. I did not rule out this source as a possible contributor to the odors we had detected earlier. We did not have the time today to explore the facility which Mr. Leek described, due to a nearby stack test we were attending today.

Inspection:

Mr. Leek took us through the plant. He explained that they primarily coat parts for the architectural field, which are exposed to the elements. They use a paint called Kynar 500, a solvent-based coating made by several companies, we were informed. Mr. Leek explained that this product remains colorfast for up to 25-30 years, despite exposure to sun and inclement weather conditions. He said that most of the parts they coat are aluminum, though there may be an occasional steel part.

FG-COATING: General Permit to Install for a coating line No. 98-04

EUPAINTLINE1, EUPAINTLINE2, and EU-POWDERLINE are identified in the original permit application

and the facility's annual MAERS emissions report. They are under the flexible group FG-COATING, in General PTI No. 98-04.

We were shown that they have a 5-stage pretreatment process. It uses a series of baths and rinses, and applies a chemical conversion coating, to which an organic coating will adhere. This process is followed by a pretreatment oven, which is fired by natural gas, according to the permit application.

It is my understanding that EU-PAINTLINE1 uses 6 spray booths, some of which apply primer, and some of which apply paint. These booths are identified as B-1 through B-6 in the original permit application. EU-PAINTLINE2 is identified in the application as using booth B-7, and is said to be for small aluminum parts.

Mr. Leek said that they have ceased using Styrofoam filters in their booths, and switched to dry filters, to catch particulate matter from priming and or painting. We were told that these dry filters are compactible, which reduces the volume of solid waste which must be removed from the site. I asked how frequently the filters are replaced, and was told they do it as needed, which may be up to twice, on a busy day.

We were informed that they have two paint curing ovens onsite, one large, and one small. Mr. Leek explained that they try to achieve a metal temperature of 450 degrees F.

EU-POWDERLINE is a powder coating booth, which, we were advised, is used more for coating interior architectural parts. Powder coating uses an electrostatic charge to help paint powder adhere to a part. The part is then cured in a curing oven. The powder coating line is identified in the original permit application as using booths B-5 and B-6, which are also used by EU-PAINTLINE1. Powder coating booths may be considered exempt from the requirement of Rule 201 to obtain a permit to install, under Rule 287(d).

Recordkeeping:

The General PTI requires a current listing of the chemical composition of each coating to be maintained, with material safety data sheets being one of the acceptable options. I verified that the facility is keeping Safety Data Sheets onsite.

The facility submits an annual air emissions report to AQD, via MAERS. In May of 2016, I audited the facility's submittal for the 2015 operating year, and it passed successfully.

The general PTI limits VOC emissions to 10 TPY VOC for a single coating line plus all associated purge, and cleanup solvents, and to 30 TPY for coating lines plus all associated purge, and cleanup solvents. Their MAERS report for the 2015 operating year indicates emissions were 5.12 tons for EUPAINTLINE1 and 4.19 tons for EUPAINTLINE2, with a combined total of 9.30 tons, within permitted limits. EU-POWDERLINE had 0.00 tons of VOC emissions in 2015, according to the MAERS report.

Conclusion:

We left the facility at 1:58 PM. No instances of noncompliance were found.

NAME 

DATE 9/27/2016

SUPERVISOR 

