

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

N355452227

FACILITY: RELIANCE FINISHING CO.		SRN / ID: N3554
LOCATION: 1236 JUDD ST. SW., GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Pat Cell		ACTIVITY DATE: 01/24/2020
STAFF: Adam Shaffer	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Reliance Finishing Company (RF) facility located at 1236 Judd Street SW Grand Rapids, MI on January 24, 2020, at 9:17 am to complete a scheduled unannounced inspection. The weather conditions at the time of the inspection were cloudy skies, temperatures in the middle 30's °F and winds from the east at 10-15 mph. Emissions observed appeared to be steam. Plastic and wastewater odors were identified to the west of the facility; however, no odor complaints have been received recently regarding this facility.

Facility Description

RF is a wet and powder coating facility for various industries. The facility is an opt out source for hazardous air pollutants (HAPs) and is in operation with Opt Out Permit to Install (PTI) No. 306-96B and PTI No. 222-08. Since the previous inspection, additional powder coating operations have been installed and wet coat-based operations have slowed down. No additional changes have occurred to the facility since the last inspection in 2016. The site layout consists of four plant buildings. Equipment in each building will be discussed in further detail below.

Offsite Compliance Evaluation

Due to the timing of the inspection, the 2018 Michigan Air Emissions Reporting System (MAERS) Report was reviewed. Upon review of the 2018 MAERS Report it was noted that the emissions reported used reclaim values. The records provided following the 2019 inspection did not appear to be using these values. Upon discussing this with the company, it was determined that solvents/coatings are collected and reclaim of these materials is included in the MAERS Report. However, reclaim is not applied to records provided during the inspection. The proper method to account for reclaim was discussed. No additional errors of note were identified and the 2018 MAERS Report was determined to be acceptable.

Compliance Evaluation

Upon entering the site, AQD staff AS met with Mr. Pat Cell, General Manager, and Mr. Mike Mosey, Owner. Mr. Cell accompanied AQD staff AS on the inspection of the facility and answered site specific questions. At the end of the inspection, a conference call regarding permit questions was held with previously mentioned RF staff as well as Ms. Mary Mosey, Owner. Requested records were later supplied by Mr. Cell and Ms. Mosey.

Opt Out PTI No. 306-96B

EUCLEANOVEN

This emission unit is for a cleaning oven used to remove cured coatings from metal parts. There is an afterburner associated with this equipment.

The cleaning oven was observed during the course of the site inspection in Plant Building #1. RF staff stated that the oven is no longer used as a burn off oven to remove cured coatings from hangers and other parts. The oven is instead now used as a drying oven to dry sludge collected from the wastewater treatment system onsite. All stripping operations are sent offsite to Industrial Stripping Services. EUCLEANOVEN is subject to a particulate matter (PM) emission limit of 0.1 lbs per 1000 lbs of exhaust gases per testing. Based on no opacity observed coming from the EUCLEANOVEN prior to and during the inspection, no testing is required at this time.

Per special condition (SC) IV.1, the permittee shall not operate EUCLEANOVEN unless the afterburner is

installed, maintained and operated in a satisfactory manner. As stated earlier, the oven is no longer being used to remove cured coatings from metal parts, and the afterburner would appear to not be used.

One stack is listed in association with EU-CLEANOVEN and was observed during the site inspection. The stack was noted to be discharging unobstructed vertically. RF staff stated that no changes have occurred to the stack since the last inspection.

Based on the observations made regarding EU-CLEANOVEN, the oven is permitted under PTI No. 306-96B, however, the oven is now being operated for a different purpose than what was originally permitted. Based on the observations made, this is a Rule 201 violation. RF staff were made aware of this issue and have already started the process of submitting a PTI application to modify their permit to reflect the current operations of EUCLEANOVEN.

FGFACILITY

This flexible group is for all process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

RF is subject to Individual / Aggregate hazardous air pollutant (HAP) emission limits of less than 9.0 tons per year (tpy) and less than 22.5 tpy respectively per a 12-month rolling time period. Records were requested and reviewed back through 2019. Upon review of the records provided, errors were noted, and the records resubmitted. For the month of December 2019, 102.64 lbs of Aggregate HAPs were emitted and as of December 2019, the 12-month rolling time period of Aggregate HAP emissions was 388.04 lbs, which is well within the permitted limits for both Individual and Aggregate HAP emissions. Previous 12-month rolling time period records reviewed were also well within permitted limits. RF is keeping track of monthly Individual HAP emissions with the most emitted HAP for December 2019 being hydrochloric acid.

Per SC V.1, RF shall use manufacturers formulation data to determine the HAP contents for all materials used. After several conversations with RF staff it was determined that RF uses Safety Data Sheets (SDS) to determine HAP contents. Upon review of the HAP contents provided, several reported HAP emissions, based on the CAS numbers were determined to not be HAPs. When brought to the attention of RF staff it was stated that staff had been taught that if components of materials contain key words (antimony, chromium) then to include them in reported HAP emissions. Additionally, upon reviewing the SDS provided and comparing the HAP values provided, errors were noted. Moving forward, these errors were discussed with and will be addressed appropriately by RF staff. After further review of Aggregate HAP emissions, it is unlikely that any applicable HAP emission limits have been exceeded. It was determined that at this time, RF shall use manufacturers formulation data, if able, or be allowed to use SDS. In the future if emissions increase significantly, then this conclusion will be reassessed.

Per SC.VI.3.a-e, RF shall keep track of usage rates of each HAP containing material used, reclaim, if applicable, of any materials, HAP contents of each material used, and monthly/12-month rolling time period emissions of Individual / Aggregate HAPs. Records were requested and reviewed. Upon review, errors were noted in records received. These errors moving forward will be addressed appropriately by RF staff. Based on the records received, it appears RF is overall keeping track of usage rates for each material. As stated earlier, RF does not apply reclaim to records provided. Additionally, RF was advised moving forward on how to properly apply reclaim to reportable emissions.

General PTI No. 222-08

FG-COATING

This is a general permit that is for eleven coating lines located on site. All coating lines are located in Plant Building #1. Additional information for each line observed on site is discussed further below.

Vikings Spray Area – This area had two spray booths. The first paint booth uses electrostatic application and was observed in operation at the time of the inspection. AQD staff AS observed one minor air gap on the filters for this paint booth and RF staff were advised to limit the air gaps in order to capture particulate emissions satisfactorily. RF staff stated that there are two sets of filters used for each booth and that all filters are changed once a day. The second spray booth uses high volume low pressure (HVLV) application and was stated by RF staff to be used daily, however, it was not in use at the time of the inspection. Containers observed around the paint booth at the time of the inspection appeared to be

properly closed.

Booth #1 – This paint booth used electrostatic application when in operation but is no longer in use.

Booth #2 – This paint booth uses HVLP application when in use. The paint booth was not operating at the time of the inspection.

Booth #3 - This paint booth used electrostatic application when in operation but is no longer in use.

Booth #4 - This paint booth used electrostatic application when in operation but is no longer in use.

Booth #5 – This paint booth uses electrostatic application when in operation and is used a couple of times a week. The paint booth was not in operation at the time of the inspection.

Booth #6 – This paint booth uses HVLP application when in operation and is used approximately once every couple of weeks. The paint booth was not in operation at the time of the inspection.

Satellite Line – This coating line consists of two spray booths that both used electrostatic application. Both booths have not been run for approximately three months.

Robot Cell Spray Booth – This paint booth used electrostatic application when in operation but has not been in use for the past couple of years.

Each coating line plus all associated purge and clean-up operations are subject to a monthly VOC emission limit of 2,000 lbs/month. Records were requested back through 2019. For the month of December 2019, 312.8 lbs of VOCs were emitted for all eleven coating lines which is well within the permitted limit for one coating line. Previous monthly VOC emissions for all combined coating lines was also well within the 2,000 lb/month limit. RF does not separate out emissions per booth but instead per production line. Since total VOC emissions for all paint booths are within the permitted limit, this was determined to be acceptable at this time. Individual coating lines are subject to a second VOC emission limit of 10 tpy per a 12-month rolling time period. As of December 2019, 2.27 tpy of VOCs were emitted per a 12-month rolling time period. Previous 12-month rolling time periods reviewed were also within the permitted limit.

Per SC VI.3.a-e, RF shall keep track of purchase orders and invoices for all coatings, reducers, and purge/cleanup solvents, the VOC contents of materials used, reclaim of any applicable materials and monthly / 12-month rolling time period emission rates. Based on the records reviewed onsite and discussion with RF staff, RF appears to be keeping track of purchase order / invoices of all materials used. RF appears to utilize a mixture of SDS and other more specific materials such as Environmental Data Sheets and verifications from suppliers to determine the VOC contents. Records were requested and provided to verify several of the VOC contents used for applicable materials. Records reviewed for select materials identified the VOC contents, however, the VOC contents for several materials were unable to be verified. Moving forward, RF will keep more appropriate records demonstrating the VOC contents for materials used during applicable processes. Though materials are reclaimed as stated previously, reclaimed emissions are not applied to records that were received from the inspection. While reviewing the records provided, several errors were noted, and corrected records were submitted. Additional errors were found; however, it appears emissions will still be below permitted limits. Moving forward, these errors were discussed with RF staff and shall be addressed appropriately. Overall, RF appears to be keeping track of usages, and monthly / 12-month rolling time period emission records.

During the inspection, the rooftop was accessed, and applicable stacks were identified for each coating line. Stacks observed were vented unobstructed vertically and appeared to be at the applicable height necessary.

FG-SOURCE

This flexible group is for all coating lines and associated purge and clean-up operations onsite. Records were requested and provided back through 2019. As of December 2019, 2.27 tpy of VOCs were emitted per a 12-month rolling time period. Previous 12-month rolling time periods reviewed were also within the permitted limit.

Additional Observations

- Powder coating operations were observed in several of the buildings located onsite. Application of powder coating materials consisted of manual and/or robotic spraying. Filters were observed in place. Clean outs of collected powder from the filters is completed each night. Every twelve months the filters are sent out to be cleaned. Based on the observations made the powder coating operations appear to be exempt per Rule 287(2)(d).
- A phosphoric acid wash line was observed during the inspection that is mainly used as a pre-treatment for the powder coating operations. Previously, RF had utilized the Rule 290 exemption and had provided a calculation demonstration showing that emissions from the line would be sulfuric acid and would be less than one pound per month. During the current inspection it was stated by RF staff that the solution has not changed since then. Based on this, it would appear that the phosphoric acid wash line is still exempt per Rule 290.
- A wastewater treatment line was observed during the inspection. The line separates metals which are mainly zinc from the wastewater before it is sent to the wastewater treatment facility. The collected sludge is then dried as stated previously in the former burn off oven before it is shipped offsite for disposal. The wastewater treatment process would appear to be exempt per Rule 285(2)(m).
- One large parts washer was observed during the inspection that uses acetone as the cleaning agent. The parts washer appears to be exempt from Rule 201 permitting under Rule 281(2)(k).

Conclusion

Based on the review of the records provided and the facility walk through, RF is not in compliance with PTI No. 306-96B and applicable air pollution control rules. A violation notice (VN) will be sent for the following violation.

- PTI No. 306-96B was issued for an oven to remove cured coatings from metal parts. The oven is now used to dry sludge from the wastewater treatment system on site. Since the oven is no longer used for its original intent as permitted and there has been a change in the method of operation, this is a Rule 201 violation.

NAME

Adam J. Staffer

DATE

03/03/20

SUPERVISOR

[Signature]