

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

A421662283

FACILITY: Rogers Printing Inc	SRN / ID: A4216
LOCATION: 3350 Main St, RAVENNA	DISTRICT: Grand Rapids
CITY: RAVENNA	COUNTY: MUSKEGON
CONTACT: Jeff Raap , Manufacturing Manager	ACTIVITY DATE: 02/04/2022
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance
SUBJECT: On-site inspection to assess compliance with permitted and all other air quality regulations.	
RESOLVED COMPLAINTS:	

Introduction

On Friday, February 4, 2022, at approximately 11:00 AM, State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) staff member Scott Evans (SE) conducted an unannounced, on-site air quality inspection of the Rogers Printing Inc. facility located at 3350 Main St. in Ravenna, Michigan, to assess compliance with air quality regulations. This facility is classified as a Synthetic Minor Title V Opt-out facility and has one active permit to install (PTI), PTI No. 114-01D, which was approved on May 9 of 2016. The facility is a printing facility that produces various newspaper, magazine, and mail advertisements. This compliance evaluation included visual inspections of all printer lines and storage areas as well as a review of required records maintained by the facility.

Inspection

Upon arrival at the facility, SE observed no visible emissions or odors during an exterior inspection of the facility perimeter. SE was then greeted by facility representative Jeff Raap (JR). A brief discussion was held to discuss the purpose of the day's visit, after which a visual inspection was conducted.

PTI No. 114-01D

This PTI is the only active PTI at the facility. It includes requirements for five emission units (EUHEIDELBERG01, EUMISCELLANEOUS, EUHEIDELBERG02, EUHARRIS, and EUHEIDELBERG03) and three flexible groups (FGOFFSET1, FGOFFSET2, and FGFACILITY).

EUHEIDELBERG03

This emission unit consists of a lithographic printing press that has an integrated recuperative thermal oxidizer (RTO). It has two emission limits associated with it as follows:

- Volatile Organic Compounds (VOC) emissions are limited to 11.5 tons-per-year (TPY) per each 12-month rolling annual period.
- VOC emissions are limited to 20ppmv as hexane on a dry basis.

Compliance with these limits is assessed with reviewed records, which are discussed further below.

This emission unit is subject to the following process restrictions:

- All VOC-containing materials shall be stored in closed containers and disposed of properly.
- VOC and Hazardous Air Pollutant (HAP) containing material shall be handled and stored so as to minimize emissions.
- Cleaning solvents shall have partial vapor pressures of not more than 10mmHg at 20°C (68°F).
- The RTO may only operate after the submission of an appropriate malfunction abatement plan (MAP).

During the inspection it was observed that all materials are stored in closed containers. The process of removal and storage of waste materials was discussed. One waste container could be seen actively in use with a lid nearby to be used to seal the container when not in use. Waste barrels are taken regularly by a contracted waste removal company. This appears to comply with waste handling requirements. The facility also maintains records of safety data sheets of all materials used, which can demonstrate compliance with partial vapor pressures. The facility continues to use the same MAP as has been used in the past, as the RTO equipment has not changed.

This emission unit has three design parameters within the PTI:

- The unit may only operate if the RTO is operating properly.
- The unit may only operate if the associated dryer is operating properly.
- A continuous temperature monitoring device for the combustion chamber of the RTO must be installed and operational.

During the inspection, all of the required equipment was installed and operating as expected. As per the conditions of PTI No. 114-01D, the RTO is considered to be operating properly if the burner temperature maintains an average of 1418°F or is operating within temperature parameters assessed during the most recent stack test. On July 19, 2016, a stack test was conducted and the RTO temperature range during that test was between 1404°F and 1417°F. During the inspection the RTO was maintaining an average temperature of approximately 1415°F, demonstrating proper function in accordance with the permit requirement. Display readings could also be seen demonstrating a negative pressure being maintained within the dryer, demonstrating proper airflow as outlined in the permit as demonstration of proper operation. For both parameters, data for past readings were observed on site and demonstrated consistent, proper functioning over time.

This emission unit has two testing requirements outlined within the PTI:

- VOC content of used materials must be verified through method 24 testing or else written approval must be obtained from the district supervisor in order to use manufacturer formulation data.
- The facility must test destruction efficiency of the RTO within 180 days of the issuance of the PTI.

Upon reviewing the file for the facility maintained at the AQD district facility it can be confirmed that written approval for the use of manufacturer formulation data was obtained in 2016 and that proper destruction efficiency testing was conducted on July 19 of 2016, well under 180 days after the issuance of the PTI. At this time there appears to be no need to reevaluate VOC or destruction efficiency values.

The following records are required by the permit to be maintained for this emission unit:

- Current listings of manufacturer data for all VOC containing materials.
- The following monthly records must be maintained:
 - The type of each VOC containing material used and reclaimed.
 - Gallons or pounds of each VOC containing material used and reclaimed.
 - VOC content of each material used.
 - Monthly VOC emissions.
 - 12-month rolling annual VOC emissions.
- Temperature readings of the RTO combustion chamber must be recorded at least once every 15 minutes.

Records were requested and reviewed at a later date remotely. As mentioned above, historic RTO temperature records were observed on site during the inspection. All other necessary material records above were provided by the facility in an appropriate format. For brevity, the records provided will be included with this report for detailed review of individual materials. Only records pertaining to the above listed emissions limits will be addressed directly in this report. The following emission levels were reported by the facility for the calendar year of 2021:

- November 2021 was the highest emission month with 593.82 lbs. emitted.
- Calendar year 2021 saw 2.65 TPY of VOCs emitted. This is well within compliance of the 11.5 TPY limit established in the permit.
- Compliance with Hexane limits can be addressed through review of manufacturer data and testing which was conducted in 2016 during the above-mentioned stack test and showed 12.7 ppmv of VOC emissions were released as hexane, which complies with the limit of 20 ppmv.

The facility is required to notify the AQD of any changes to this emission unit upon the completion of said changes. Per discussions during the inspection, no changes have been made to the process equipment within the unit and so there are no current compliance issues with this requirement. This unit has one associated stack. The stack was not measured during the inspection, but visual inspection appeared to confirm compliance with required dimensions.

FGOFFSET1

This flexible group is comprised of EUHEIDELBERG01 and EUMISCELLANEOUS. It has one associated emission limit: VOC emissions are limited to no more than 10.0 TPY for each 12-month rolling annual period. Records were obtained by the AQD to assess compliance with this limit and are discussed further below. This equipment was not in use during the inspection, but it remains attached and functional along with all associated control equipment for when production requires its use.

Inks and cleaning materials used for this flexible group are required by the permit to be stored and disposed of in ways that limit potential VOC emissions. During the inspection it was observed that all materials and wastes were stored in closed containers as required. One container was in active use, and a lid could be seen nearby for closing of the container when no longer in use.

For this flexible group, VOC content of used materials must be verified through method 24 testing or else written approval must be obtained from the district supervisor in order to use manufacturer formulation data. Per records retained by the AQD, approval to use manufacturer formulation data was obtained for this flexible group in 2013. Though this permit was issued as a modification in 2016, previous approval is still acceptable as this flexible group was unchanged by the permit modifications.

The facility is required to maintain the following records for this flexible group:

- Current listings of manufacturer data for all materials.
- The following monthly records must be maintained:
 - The type of each material used.
 - VOC content of each material used.

- Gallons or pounds of each material used and reclaimed.
- 12-month rolling annual VOC emissions.

Records were requested and reviewed at a later date remotely. All necessary material records above were provided by the facility in an appropriate format. For brevity, the records provided will be included with this report for detailed review of individual materials. Only records pertaining to the above listed emissions limits will be addressed directly in this report. The following emission levels were reported by the facility for the calendar year of 2021:

- October, 2021, was the highest emission month with 345.47 lbs. of VOCs emitted.
- Calendar year 2021 saw 1.72 TPY of VOCs emitted. This is well within compliance of the 10.0 TPY limit established in the permit.

FGOFFSET2

This flexible group consists of EUHEIDELBERG02 and EUHARRIS. It is controlled by an RTO unit. This flexible group is subject to the following emission limits:

- VOC emissions are limited to 4.3 pph.
- VOC emissions are limited to 17.8 TPY for each 12-month rolling annual period.

Records demonstrating compliance with these limits were requested by the AQD and reviewed remotely at a later date. A detailed discussion of these records and compliance with these limits can be found below.

This flexible group is subject to the following process restrictions:

- All VOC-containing materials shall be stored in closed containers and disposed of properly.
- VOC and HAP containing material shall be handled and stored so as to minimize emissions.
- Cleaning solvents shall have partial vapor pressures of not more than 10mmHg at 20°C (68°F).
- The RTO may only operate after the submission of an appropriate malfunction abatement plan (MAP).

Inks and cleaning materials used for this flexible group are required by the permit to be stored and disposed of in ways that limit potential VOC emissions. During the inspection it was observed that all materials and wastes were stored in closed containers as required. One container was in active use, and a lid could be seen nearby for closing of the container when no longer in use. Vapor pressures were reviewed with manufacturer data that was stored on site. The facility had previously provided a MAP that addressed facility functions appropriately. This MAP is still acceptable as processes and equipment have not changed.

This flexible group has two design parameters stated in the permit:

- The RTO must maintain a combustion chamber temperature of at least 1500°F or the minimum temperature assessed during the most recent stack test, which was conducted on October 29, 2013, and established an operating temperature of 1501°F while in use.
- A continuous temperature monitoring device for the combustion chamber of the RTO must be installed and operational.

During the inspection a temperature measuring device was installed and was reading approximately 1505°F while in use. As with the previous RTO, historic records were observed on site to confirm continuous, proper operation of the unit.

For this flexible group, VOC content of used materials must be verified through method 24 testing or else written approval must be obtained from the district supervisor in order to use manufacturer formulation data. Per records retained by the AQD, approval to use manufacturer formulation data was obtained for this flexible group in 2013. Though this permit was issued as a modification in 2016, previous approval is still acceptable as this flexible group was unchanged by the permit modifications. The facility is also required to test and verify these values at the request of the AQD. At this time, it is not felt that testing is required.

The facility is required to maintain the following records for this flexible group:

- Current listings of manufacturer data for all materials.
- The following monthly records must be maintained:
 - The type of each material used.
 - VOC content of each material used.
 - Gallons or pounds of each material used and reclaimed.
 - 12-month rolling annual VOC emissions.

Records were requested and reviewed at a later date remotely. All necessary material records above were provided by the facility in an appropriate format. For brevity, the records provided will be included with this report for detailed review of individual materials. Only records pertaining to the above listed emissions limits will be addressed directly in this report. The following emission levels were reported by the facility for the calendar year of 2021:

- August 2021 was the highest emission month with 234.97 lbs. of VOCs emitted.
- 0.31 TPY of VOCs were emitted during the calendar year of 2021, which is well below the limit of 17.8 TPY.

There is one stack associated with this flexible group. The stack was not measured during the inspection, however, the stack appeared to be compliant with the required dimensions upon visual inspection.

FGFACILITY

This flexible group encompasses all process equipment within the facility. There are two associated emission limits for this flexible group:

- Individual HAP emissions are limited to 9.0 TPY for each 12-month rolling annual period.
- Aggregated HAP emissions are limited to 22.5 TPY for each 12-month rolling annual period.

Records demonstrating compliance with these limits were obtained by the AQD and a discussion of these records can be found further below.

The facility is required to determine HAP content of all materials using manufacturer formulation data. The facility keeps this required information as was confirmed during the inspection and records review.

The following records are required to be maintained by the facility on a monthly basis for this flexible group:

- Gallons or pounds of HAP containing material used and reclaimed.
- HAP content of each material used.
- Individual and aggregate monthly HAP emissions.
- Individual and aggregate 12-month rolling annual HAP emissions.

Records were obtained by the AQD and were reviewed remotely. Copies of these records will be included with this report.

- Adequate usage and reclamation records were provided. They are attached and can be reviewed as needed.
- HAP content is recorded for each material. These records are attached and can be reviewed as needed.
- The highest individual monthly HAP emission level was Ethylene Glycol at press M-600 at 22.796 lbs emitted regularly due to consistent use of 75 gallons per month for standard operation. This was also the highest individual annual HAP emission as it was the highest emitter every month with 273.55 lbs emitted during the calendar year of 2021.
- The highest aggregate monthly HAP emission level was 91.54 lbs emitted in October of 2021.
- Calendar year of 2021 saw 0.477 TPY of aggregate HAPs emitted.

All of the above results demonstrate compliance with the HAP emission limits within the permit.

Exemptions

The facility has one dust collector that is used to control particulate matter released by an on-site paper shredder. This dust collector vents to the facility interior. It appears to be exempt from air permitting by Rule 285(2)(I)(vi)(B).

The facility has no boilers or generators located on site.

MAERS

This facility, as a Title V opt-out, is required to submit annual records through the Michigan Air Emissions Reporting System (MAERS). The facility was late in their submission for the 2021 reporting period. A violation notice was issued and then a second, subsequent violation notice was issued for failure to respond to the initial violation in a timely manner. The facility eventually did submit their MAERS report on October 22, 2021. The details of that report may be found within the MAERS files retained by the AQD. At this point the violation notices are considered resolved. A conversation was had with facility representatives to discuss the importance of submitting MAERS reports in a timely manner and that repeated late submissions may subject the facility to more stringent consequences in the future.

Conclusion

At the conclusion of the inspection, the facility appears to be compliance with the requirements outlined in PTI No. 114-01D. Though the facility has had recent violations regarding MAERS reporting, at this time the facility also appears to be compliant with all other applicable air quality regulations.

NAME Scott Evans

DATE 3/24/2022

SUPERVISOR HH