

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

B256148058

FACILITY: PACKAGING CORPORATION OF AMERICA		SRN / ID: B2561
LOCATION: 3251 Chicago Dr, GRANDVILLE		DISTRICT: Grand Rapids
CITY: GRANDVILLE		COUNTY: KENT
CONTACT: Josh Erdman , Maintenance Manager		ACTIVITY DATE: 03/08/2019
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Packaging Corporation of America (PCA) facility located in Grandville, MI on March 8, 2019 at 9:25am to complete a scheduled unannounced inspection. The weather conditions at the time of the inspection were temperatures in the upper teens Fahrenheit, partly cloudy skies and winds from the east at 0-5mph. Prior to entering the facility, offsite odors and visible emission observations were completed. Emissions that appeared to be steam were observed. A mild fish tank odor was noted to the east of the facility, but is likely attributed to an adjoining parcel to the east. A cardboard odor was noted to the west of the facility. The area to the west is mainly commercial businesses and no recent odor complaints have been received regarding PCA.

#### Facility Description

PCA is a packaging production company that based on their website produces various products including corrugated containers, retail packaging and displays, heavy-duty packaging and produce packaging. The facility currently operates three shifts a day. The facility is a synthetic minor source of particulate matter (PM), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The facility is in operation with Opt Out Permit to Install (PTI) No. 86-14. Since the last inspection, the facility has added one printing press and removed an existing press. No additional changes have occurred since the last inspection. PCA staff were planning on submitting the 2018 Michigan Air Emissions Report System (MAERS) within the next couple of days.

#### Offsite Compliance Review

- Based on the timing of the inspection, the 2018 MAERS Report was reviewed as part of the 2019 FCE. Upon initial review, several errors and no supporting documentation were noted. PCA resubmitted the 2018 MAERS Report, and after further review, the report was determined to be acceptable.

#### Compliance Evaluation

Upon entering the site, AQD staff AS initially met with Mr. Josh Erdman, Maintenance Manager, who provided a tour of the facility and helped answer site specific questions. Throughout the course of the inspection, AQD staff AS also met with Mr. Craig Peterson, Production Manager, Mr. Jaime Kiste, Plant Superintendent, and Ms. Kymberlee Peterson, Quality Systems Manager, who helped with answering site specific questions and providing requested records.

The various stages of on-site operations were observed during the course of the inspection. Additional information regarding each specific process/equipment is described below.

## Onsite Observations

- Paper utilized for all on site operations depends on various factors including type, size and weight. At the start of the process a corrugator machine is used to corrugate, laminate, cut to appropriate size and stack the paper. Monthly records were provided of emissions from the corrugator machine. Emissions are generated from the starch additive used to create the glue that is utilized by the corrugator machine. Monthly emission records were provided from January 2018 through January 2019. In the records initially received, reported emissions consisted of acetone, formaldehyde, and methanol. However, it was later identified from additional information provided from the supplier that the emissions consist of formaldehyde, methanol and diethanolamine. Review of the monthly emissions using the updated component percentages shows that emissions appear to still be below Rule 290 limits. Moving forward, the monthly emission records shall be updated with the corrected component makeups.
- A mixing area was observed that is used to create the glue needed for the corrugator machine. The materials used are water, starch, caustic soda and borax. Potential emissions appear to be vented internally. A 2,000 gallon caustic soda tank was observed that appears to be exempt per Rule 284(2)(h).
- A wastewater treatment system was observed during the course of the site inspection. Emissions from the system are vented internally. The wastewater treatment system on site appears to be exempt per Rule 285(2)(m).
- Four flexographic printing presses were observed during the course of the site inspection. Here materials go through various steps including printing, cutting, folding and gluing. PM emissions are captured by a respective dust collection system. Several different collection systems were observed including a dust collector that utilizes cartridge filters, a wet collection system, and one system consisting of what appeared to be filter collection bags. Several of the collection units observed also compressed the dust collected into solid cakes. Emissions from each system are vented internally. Based on observations made during the inspection each dust collection system appeared to be operating satisfactory. Open containers of waste coating were observed around several of the flexographic printing presses. AQD staff AS recommended to limit the number of open containers not in use in order to prevent fugitive emissions. Two die cutting machines were observed during the course of the site inspection. Operations are similar to the flexographic printing presses except there is no folding or gluing. PM emissions are collected in what appeared to be filter collection bags and the systems are vented internally. The filter collection bags observed appeared to be operating satisfactorily. The four flexographic printing presses and two die cutting machines are potentially exempt per Rule 290. Monthly emission records were provided from January 2018 through January 2019. Upon review, the records provided were not separated out per emission unit but instead grouped together per materials used. In a phone conversation between AQD staff AS and PCA staff on March 26, 2019, additional information was requested in order to identify the monthly emissions per emission unit. Monthly hours of operation for each piece of equipment was provided from January 2018 through January 2019. Based on the hours of operation and a worst case scenario, it was concluded that monthly emissions for each of the six emission units appear to be below the 1,000 lb. limit of total uncontrolled emissions per month. The four flexographic printing presses and two die cutting

machines appear to be exempt per Rule 290. Moving forward, PCA will keep corrected records in a more appropriate format demonstrating each of the flexographic printing presses and die cutting machines still meet the Rule 290 exemption.

- A 500 horsepower (21.0 MMBTU/hr) boiler was observed during the course of the site inspection. The boiler was constructed in 1999. Annual and semi-annual inspections of the boiler are completed with the most recent inspection being done on 12/27/18. Based on the size of the boiler, it is subject to New Source Performance Standards (NSPS) Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Initial notifications for the boiler were previously submitted and received by the AQD on 01/27/2000 and 03/27/2000. Monthly fuel usage records were requested and provided by PCA staff. Upon initial review, it was determined that the monthly records were sitewide natural gas usage versus specifically for the boiler. In a phone conversation between AQD staff AS and PCA staff on March 26, 2019, it was concluded the majority of the natural gas usage was for the boiler with around five percent of the remaining usages being for several rooftop units. The current recordkeeping is acceptable. The boiler appears to be exempt from air permitting per Rule 282(2)(b)(i).
- Paper waste from onsite process operations is sent to the cyclone located on the roof of the site building, which is connected to the baler system. Here paper waste is collected and compressed into bales before being shipped offsite. The rooftop, cyclone and associated ductwork were observed during the course of the site inspection. When on the roof, one area of the ductwork was noted to have paper debris around it. This was stated by PCA staff to have been from a recent repair made and was never cleaned up. AQD staff AS advised PCA staff to have the area cleaned up. No other areas of concern were noted during the rooftop inspection.
- One parts washer was observed during the course of the inspection. The parts washer was labeled, had an air/vapor interface of less than 10 square feet and is maintained by Safety Kleen. The parts washer appeared to be exempt per Rule 281(2)(h).
- The cascade building located adjacent to the main site building was toured during the site inspection. Two tanks containing wax that were approximately 6,000-8,000 gallons in size were observed. In the cascade building, two cascade machines are used in applying wax to products previously made in earlier operations. The wax storage tanks and associated wax application machines appear to be exempt per Rule 284(2)(a).

#### PTI No. 86-14

#### FGFACILITY

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

This flexible group is subject to an individual and aggregate HAP emission limit of less than 9.0 tons per year (tpy) and less than 22.5 tpy respectively per a 12-month rolling time period. For the month of January 2019, 775.2 lbs (approximately 0.39 tons) of aggregate HAPs were emitted. As of January 2019, the 12-month rolling total of aggregate HAPs emitted was approximately 5.09 tpy, which is well within the permitted

limit for both individual and aggregate HAPs. Previous 12-month rolling time periods were also well within permitted limits. Not all HAPs appeared to be separated out, however, the combined HAPs were still below individual HAP limits. If total HAP emission records in the future are over individual limits, individual HAP records must be maintained to verify compliance.

FGFACILITY is also subject to a PM limit of 0.03 lbs per 1,000 lbs of exhaust gas, calculated on a dry gas basis. This emission limit is met through satisfactory operation of the scrap collection cyclone system. Based on a review of the visible emission reading records that are discussed in further detail later in this report and onsite observations, the control device appears to be operating satisfactorily. This flexible group is subject to a PM limit of 42 tpy per a 12-month rolling time period. Monthly and 12-month rolling time period records of numbers of scrap bales collected from the cyclone were provided. It appears that PCA is only keeping track of monthly and 12-month rolling time periods of bales of material recycled and not of monthly and 12-month rolling time periods of PM emissions, though records were not officially requested from PCA staff during the inspection process. Moving forward, PCA shall keep appropriate monthly and 12-month rolling time period records of PM emissions for the scrap collection cyclone system if this is not already being completed. Using the emission factor identified during the permitting process for PTI No. 86-14 of 1.83 lbs of PM per bale of product collected; for the month of January 2019, 675.72 bales of paper waste were recycled, which is equal to approximately 0.62 tons of PM emitted. As of January 2019, the 12-month rolling total of paper waste recycled was 8,032.62 bales, which equals to 7.35 tpy of PM emitted, and is well within the permitted limit. Previous 12-month rolling time periods were reviewed and also well within the permitted limit.

Additionally, FGFACILITY is subject to a VOC emission limit of 89 tpy per a 12-month rolling time period. Records were requested and reviewed from January 2018 through January 2019. For the month of January 2019, 1,204.6 lbs (approximately 0.60 tons) of VOCs were emitted. As of January 2019, the 12-month rolling time period of VOCs emitted was approximately 8.4 tpy, which is well within the permitted limit. Previous 12-month rolling time periods reviewed were also well within the permitted limit.

Per Special Condition (SC).V.1, the permittee shall determine the HAP content of any material received and as applied, using manufacturer's formulation data. Records were requested from PCA staff. PCA provided limited documentation from suppliers and purchase records to demonstrate HAP contents. After speaking with PCA staff on this issue, it was concluded that historically PCA had received records with the component breakdowns for each material. Currently PCA no longer receives records in this format for select materials and instead on a yearly basis verifies that no changes have occurred to the previous component percentages in their record tables. Though this is technically not correct, it was concluded that based on how low PCA's HAP emissions are (approximately 5.09 tpy for all HAPs as of January 2019) they appear to be meeting HAP emission limits. However, moving forward, PCA shall keep more appropriate documentation readily available to demonstrate HAP contents for materials used on site.

Per SC.VI.1, PCA shall once a month verify visible emissions from the scrap collection cyclone system. Monthly records were provided and reviewed. Based on the records reviewed, no visible emissions were observed during the monthly readings. After further review, the records were complete and appeared to show satisfactory operation

of the cyclone.

Per SC.VI.3.a-e, PCA shall keep records of usages of HAP containing materials, reclaim rates, HAP contents and monthly/12-month rolling time periods of individual/aggregate HAP emissions. Records were requested and provided from January 2018 through January 2019. Per PCA staff, emissions are based on purchase records and not material usage rates. This may result in either an over or under estimation of monthly emissions, depending on actual monthly usages. However, based on purchase records and a worst case scenario, emissions appear to still be below permitted limits. Usage rates were discussed at length with PCA staff and moving forward PCA shall record material usages of each material instead of purchase records to demonstrate compliance. No reclaim of materials is completed. Errors were noted when reviewing the records, however, were concluded to be acceptable. Moving forward, the records will be discussed with PCA staff on correcting and keeping in a more appropriate format.

Per SC.VI.4.a-e, PCA shall keep records of usages of VOC containing materials, reclaim rates, VOC contents and monthly/12-month rolling time periods of VOC emissions. Records were requested and provided from January 2018 through January 2019. Per PCA staff, emissions are based on purchase records and not material usage rates. This may result in either an over or under estimation of monthly emissions, depending on actual monthly usages. However, based on purchase records and a worst case scenario, emissions appear to still be below permitted limits. Usage rates were discussed at length with PCA staff and moving forward PCA shall record material usages of each material instead of purchase records to demonstrate compliance. No reclaim of materials is completed. Errors were noted when reviewing the records, however, were concluded to be acceptable. Moving forward, the records will be discussed with PCA staff on correcting and keeping in a more appropriate format.

### Conclusion

Based on the facility walkthrough, observations made, and records received, PCA appears to be in compliance with PTI No.86-14 and applicable air quality rules at this time.

NAME

Adam J. Smith

DATE

04/19/19

SUPERVISOR

Eric Duster, Acting

