

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

B256166397

<b>FACILITY:</b> PACKAGING CORPORATION OF AMERICA		<b>SRN / ID:</b> B2561
<b>LOCATION:</b> 3251 Chicago Dr, GRANDVILLE		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> GRANDVILLE		<b>COUNTY:</b> KENT
<b>CONTACT:</b> Josh Erdman , Maintenance Manager		<b>ACTIVITY DATE:</b> 01/12/2023
<b>STAFF:</b> Michael Cox	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Scheduled Unannounced Inspection		
<b>RESOLVED COMPLAINTS:</b>		

Air Quality Division (AQD) staff Michael Cox (MTC) arrived at the Packaging Corporation of America (PCA) facility located at 3251 Chicago Drive Grandville, MI on January 12, 2023, at approximately 1:00pm to complete a scheduled unannounced inspection. Prior to entering the facility, offsite odors and visible emission observations were completed. A steam plume was noted coming from the boiler area within the facility. No odors or other visible emissions were noted.

### **Facility Description**

PCA is a packaging production company that produces various products including corrugated containers, retail packaging and displays, heavy-duty packaging, e-commerce packaging, and produce packaging. The facility currently operates three shifts a day. The facility is in operation with Opt-Out Permit to Install (PTI) No. 86-14 and is a synthetic minor source for particulate matter (PM), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). No changes have occurred since the last inspection.

### **Compliance Evaluation:**

#### **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 HAP emission limit of 9.0 tons per year (tpy) per a 12-month rolling time period and an aggregate HAP emission limit of 22.5 tpy per a 12-month rolling time period. HAP emission records were requested and reviewed for the time period of January 2022 through January 12, 2023. The highest 12-consecutive month rolling individual HAP emission occurred during the 12-month period ending in January 2022 when 2.5 tons of Monoethanolamine was emitted. The highest 12-consecutive month aggregate HAP emission occurred during the 12-month periods ending in January and February 2022, when 4.0 ton of aggregate HAP was emitted. Not all HAPs appeared to be separated out in the records provided. It was recommended in the future to separate each individual HAP as to verify compliance more easily. An updated copy of emissions records was provided separating out each individual HAP.

FGFACILITY is also subject to a particulate matter (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. Visible emissions

records as well as preventative maintenance/cyclone inspection records were requested and reviewed for the time period of January 2022 through January 12, 2023. Based on a review of the visible emission reading records, the control device appears to be operating satisfactorily. This flexible group is also subject to a PM limit of 42 tpy per a 12-month rolling time period. PM emission records on a monthly and 12-month rolling time period basis were requested and reviewed for the time period of January 2022 through January 12, 2023. PCA is 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. The highest 12-consecutive month PM emission occurred during the 12-month period ending in December 2022 when 8.85 tons of PM was emitted.

FGFACILITY is subject to a VOC emission limit of 89 tpy per a 12-month rolling time period. VOC emission records were requested and reviewed from January 2022 through January 12, 2023. The highest 12-consecutive month VOC emission occurred during the 12-month period ending in December 2022, when 15.9 tons of VOC was emitted.

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 or select coatings. Manufacturer's formulation data was reviewed for accuracy with the provided emissions records and VOC/HAP containing materials list. No issues were noted.

Per SC.VI.1, PCA shall once a month verify visible emissions from the scrap collection cyclone system. Visible emissions records as well as preventative maintenance/cyclone inspection records were requested and reviewed for the time period of January 2022 through January 12, 2023. Based on a review of the visible emission reading records, the control device appears to be operating satisfactorily.

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 2022 through January 12, 2023.

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 2022 through January 12, 2023.

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, after a review of the emission records, the emissions appear to be well below permitted limits. No reclaim of materials is completed.

#### **On-site 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. 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 2022 through January 12, 2023. The emissions consist of VOC, formaldehyde, methanol and diethanolamine. After a review of the monthly emissions, it appears that this emission unit is exempt from Rule 201 permitting per Rule 290(2)(a)(i).

- The “Starch Kitchen”, which is 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).

- The “Ink Kitchen”, which is the coating mixing area for the four flexographic printing presses was observed. All containers were closed and stored properly. Emissions from the system are vented internally. The “Ink Kitchen” appears to be exempt from Rule 201 permitting per Rule 287(2)(k).

- 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 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. Waste coating containers were observed around the flexographic printing presses and were noted to be kept closed when not in use. Two die cutting machines were also observed in the area of the flexographic printing presses during the course of the 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. Monthly emission records were requested and provided for the time period of January 2022 through January 12, 2023. Based on the review of the records provided it appears that monthly emissions for each of the six emission units are 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 from Rule 201 permitting per Rule 290(2)(a)(i).

- A 500 horsepower (20.4 MMBTU/hr) natural gas-fired 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 being completed as required. 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 January 27, 2000, and March 27, 2000. Monthly fuel usage records were requested and provided by PCA staff for the time period of January 2022 through January 12, 2023. 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. No issues were noted.
- 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 from Rule 201 permitting 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 to 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 from Rule 201 permitting per Rule 284(2)(a).

### Conclusion

Based on the observations made during the facility walkthrough and records received and reviewed, PCA appears to be in compliance with PTI No.86-14 and all other applicable State and Federal air quality rules and regulations.

NAME Michael T. Cox

DATE 2/22/2023

SUPERVISOR HH