

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

N777154337

FACILITY: ADVANCE PACKAGING CORPORATION		SRN / ID: N7771
LOCATION: 4459 40TH ST SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Sue Albrecht , Vice President Administration		ACTIVITY DATE: 07/15/2020
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Announced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro conducted an announced, scheduled inspection of the facility. Advance Packing was contacted the morning of the inspection to inform them of my arrival. Upon arriving at the facility, I met with Sue Albrecht, Vice President Administration and Rob Howitt. During the opening meeting, I learned that the facility had an employee test positive for COVID-19 and as such a full facility inspection was not conducted. We discussed the opportunity for either a virtual inspection, or on-site inspection in the future. However, compliance with many aspects of the regulations can be determined through recordkeeping.

FACILITY DESCRIPTION

Advance Packaging is a manufacturer of corrugated cardboard, with printing capabilities. Equipment on site includes two cardboard manufacturing, cutting and handling systems each with a baghouse with fabric filter control. Baghouse one is rated at 65,000 CFM and the current actual air flow is 40,000 CFM. Baghouse two is rated at 80,000 CFM and the current actual air flow is 45,000 CFM.

The facility operates 8 flexographic printing presses and one digital printing press.

COMPLIANCE EVALUATION

During the on-site inspection, I asked Ms. Albrecht about the required recordkeeping for ink usage or emissions data. Ms. Albrecht responded that they are exempt and do not maintain any records of ink usage or emissions pursuant to air quality regulations. I explained that this was not a correct assertion by Advance Packaging. Apparently, the human resources person that previously kept track of air quality information is no longer with the company. I told Ms. Albrecht that I would get a copy of the Air Quality Division files so that we would both know what had been done in the past. This was provided to her on July 16, 2020.

We discussed that the facility would put together the Safety Data Sheets (SDS) for the top 10 most frequently used inks, along with the ink wash and send them to me. I thought that this information would give me a good idea in which direction the company should head toward achieving compliance. As it turns out, the SDS's did not contain very good information on either volatile organic compound (VOC) or hazardous air pollutant (HAP) emissions. At this point I realized that determining compliance "at a glance" would not be possible. I suggested that Ms. Albrecht request the Environmental Data Sheets from the ink suppliers, to which she responded that she had.

I did see that one ink in particular was listed as being 90-100% diethylene glycol monomethyl ether (CAS # 111-77-3) which is a glycol ether HAP. This product has a density of 9.0 lb/gallon. Since assuming that 100% of the ink is solvent (not realistic, since there are solids) I used 95% to determine actual emissions of his HAP based on usage of 800 gallons was 6,840 lbs of diethylene glycol monomethyl ether emissions.

The ink wash information was also received, it also contains a glycol ether HAP CAS #111-76-2. The listed amount on the SDS is 1-10% so the 10% factor was used in the calculation. This product has a density of 8.53 lb/gallon and 525.21 gallons were used. Actual emissions of this HAP were 448 lbs. This product also contains tetrasodium EDTA at a range of 1-10%. Since this item has an ITSL of 0.1 on an annual basis, and emissions annually are 448 lbs, Rule 290 does not appear to be an option.

The SDS for the most frequently used white coating, lists zero ingredients.

The ink varnish contains benzophone at 5%. This item has an ITSL of 0.2 on an annual basis and emissions annually are 1,237.5. Rule 290 does not appear to be an option.

Finally, total ink and related materials usage is 36,910 gallons for one year. If that number is divided by 12 months, and then assigned equally to the 8 flexographic printing presses and one digital press, it would equate to 341 gallons per printing press (emission unit) per month. Using this method, Rule 287 (c) does not appear to be an option. It is unclear if these gallons include the volume from water or not as it is not listed in the SDS's.

Ms. Albrecht worked to provide a spreadsheet of 2019 product purchases, however without accurate constituent information the "at a glance" compliance determination is not able to be made.

In an email dated July 16, 2020 a Potential to Emit (PTE) demonstration was requested. This submittal was requested by August 13, 2020.

CONCLUSION

Due to the apparent complexity of the inks and other constituents including the inability to easily calculate emissions, the lack of recordkeeping to determine compliance and initial indications that the facility does not qualify for any permit exemptions, Advance Packaging has been determined to be in non-compliance with Rule 201 for failure to obtain a Permit to Install. A violation notice will be issued and will include a formal PTE request to confirm the one sent via email as identified above. The submittal date for the PTE will be extended from the original date due to the complexities identified above.

NAME April Lazzaro

DATE 07/27/2020

SUPERVISOR  _____