

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

B167870162

FACILITY: GRAPHIC PACKAGING INTERNATIONAL LLC		SRN / ID: B1678
LOCATION: 1500 N. PITCHER ST., KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Steven Smock , Environmental Manager		ACTIVITY DATE: 11/02/2023
STAFF: Michael Cox	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled unannounced Inspection		
RESOLVED COMPLAINTS:		

At approximately 1:30 P.M. on November 2, 2023, Air Quality Division (AQD) staff Michael Cox (MTC) and Monica Brothers (MB) conducted an unannounced on-site inspection of Graphic Packaging International (GPI) located at 1500 North Pitcher Street, Kalamazoo, Michigan. The purpose of this inspection was to determine compliance with the facility's renewable operating permit (ROP) MI-ROP-B1678-2015 and Permit to Install (PTI) No. 133-19A. Accompanying AQD staff on the inspection was Mr. Steve Smock, Environmental Manager, who is the primary contact for on-site activities at the facility and who also provided records during and following the inspection. Also accompanying AQD staff was Mr. Greg France, Mill Manager. Prior to arriving on site MTC observed the perimeter of the facility for any visible emissions and odors. Odors were present near the facility along Pitcher Street that were attributed to the paperboard processes, however, the odors were not significant enough to be considered a Rule 901 violation. Visible steam plumes were noted prior to entry coming from several stacks associated with the paper machines and boilers.

Facility Description

GPI is a paper mill that makes a 3-ply and 2-ply thickness paperboard for things like cereal boxes and tissue boxes. The facility also prints on, cuts, folds, and glues this paperboard to create final products. The facility is located in a populated area in downtown Kalamazoo and sits adjacent to residential areas and other industry, as well as the City of Kalamazoo's Water Reclamation Plant. The facility operates 24-hours a day and seven day a week. GPI began operations at this location in 2000, after purchasing the existing papermill facility at this location.

Regulatory Analysis

GPI is a major source for nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), and volatile organic compounds (VOCs). GPI is currently operating under MI-ROP-B1678-2015 and PTI #133-19A. There are two sections to this ROP, the Mill Section, and the Carton Plant Section. The facility received PTI No. 133-19A to expand production, which included two new boilers (Boilers 10 and 11) and a new paper machine (K2). The K2 paper machine started up in February 2022, while Boilers 10 and 11 had a start-up date of November 24, 2020. Per the requirements of PTI No

133-19A, the facility no longer burns fuel oil in their boilers and uses only natural gas.

In 2019, AQD escalated enforcement against GPI because of a number of unresolved odor violations. Administrative Consent Order (ACO) 2022-20 became effective February 1, 2023, which resolved these odor violations. A second enforcement action was initiated in October 2022 for violations discovered during an on-site inspection, during stack testing, and by voluntary disclosure from the company. A PTI application (No. App-2022-0207) was received on August 18, 2022. This permitting action, along with a second ACO have resolved some of these violations. PTI No. 133-19B was issued on December 13, 2023, and ACO 2023-18 became effective on December 14, 2023. The facility also has a Nuisance Minimization Plan for Odors (NMPO) that was approved by EGLE on August 18, 2022.

GPI is considered an existing major PSD nested source due to the Potential to Emit (PTE) of Boilers 8-11 is over 100 tons per year and the boilers are a listed PSD source within another source. GPI is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. GPI is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63, Subpart CCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. GPI is also subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM), and 40 CFR Part 96 for NOx trading.

Compliance Evaluation

Source-Wide Conditions:

GPI – Mill Section and Carton Plant Section has a combined hazardous air pollutant (HAP) limit of 9.9 tons per year (tpy) for individual HAPs, and 24.9 tpy for combined HAPs on a 12-consecutive month rolling basis. This includes the emissions from the boilers and clean-up solvents. Records were requested and reviewed for the time period of August 2022 through September 2023. The highest 12-consecutive month Individual HAP emission occurred during the 12-consecutive month time period ending in August 2022 when 5.016 tons of Vinyl Acetate was emitted. The highest 12-consecutive month combined HAP emissions occurred during the 12-consecutive month time period ending in August 2022, when 11.014 tons of combined HAP was emitted.

Section 1: Mill

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EUBOILER#7:

EUBOILER#7 is a natural gas boiler with a maximum heat input of 127 MMBTU/hr. This boiler was decommissioned in April of 2022 and is no longer on site and operational.

EUBOILER#8:

EUBOILER#8 now fires only natural gas and has a maximum heat input of 240 MMBTU/hr. PTI #133-19A requires that they no longer use fuel oil for this emission unit. **EUBOILER#8** has a continuous emissions monitoring system (CEMS) that records NOx during the ozone season. **EUBOILER#8** has a NOx emission limit of 40.4 tpy on a 12-consecutive month rolling basis as well as a NOx emission limit of 154 lb/MMCF on an hourly basis. Compliance with the hourly NOx emission rate is determined through stack testing which is to be conducted every 60 months as of the issuance of PTI No.133-19A. As of this inspection, stack testing has not yet been conducted on **EUBOILER#8** to verify compliance with the hourly NOx emission rate. Stack testing is due by November 24, 2025. **EUBOILER#8** has a material limit of 525 MMCF/yr of natural gas usage on a 12-consecutive month rolling basis. Records of NOx emissions and natural gas usage were requested and reviewed for the time period of August 2022 through September 2023. GPI is keeping track of NOx emissions as required. The highest 12-consecutive month NOx emission occurred during the 12-consecutive month time period ending in January 2023 when 23.3 tons of NOx was emitted. The highest 12-consecutive month natural gas usage occurred during the 12-consecutive month period ending in January 2023 when 265.7 MMCF of natural gas was used. During the facility walk through, Boiler 8 was not in operation and has not operated since March 13, 2023. GPI is required to have a malfunction abatement plan (MAP) for this unit, which has been implemented and maintained.

One stack is listed in association with **EUBOILER#8**. The stack was observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015 and PTI No.133-19A.

EUBOILER#9:

EUBOILER#9 now fires only natural gas and has a maximum heat input of 227 MMBTU/hr equipped with low NOx burners and flue gas recirculation. PTI No.133-19A requires that they no longer use fuel oil for this emission unit. **EUBOILER#9** has a CEMS unit that monitors NOx emissions. **EUBOILER#9** has NOx emission limits of 0.06 lbs/MMBTU on a 24-hour average basis, 13.6 pph on an hourly basis, and 59.6 tpy on a 12- consecutive month rolling basis. **EUBOILER#9** has a total gaseous non-methane organic compound (NMOC) measured as methane of 0.025 lbs/MMBTU of heat input on an hourly basis and 5.7pph NMOC limit on an hourly basis. Records of NOx emissions were requested and reviewed for the time period of August 2022 through September 2023. GPI is keeping track of NOx emissions as required. Two exceedances were noted during the records review for the 0.06 lb/MMBTU limit that occurred on August 20, 2022, and August 21, 2022 with the 24-hour average values at 0.126 and 0.074 lb/MMBtu respectively, however, these exceedances were already addressed during the previous inspection. There were also 37 exceedances of the 13.6 pph limit from August 19, 2022 to August 21, 2022 which were also addressed during the previous inspection. The highest 12-consecutive month NOx emission occurred during the 12-consecutive month time period ending in September 2022 when 21.39 tons of NOx was emitted. Compliance with the hourly NMOC emission

rates are determined through stack testing which is to be conducted every 60 months as of the issuance of PTI No.133-19A. As of this inspection, stack testing has not yet been conducted on EUBOILER#9 to verify the hourly NMOC emission rates. Stack testing is due by November 24, 2025. During the facility walk through, Boiler 9 was in operation. Below are the operational values collected from the CEMS unit during the inspection:

EUBOILER#9		
NOx lb/MMBtu	NOx pph	CO2
0.035 lb/MMBtu	4.3 pph	3.9

GPI is required to have a MAP for this unit, which has been implemented and maintained.

One stack is listed in association with EUBOILER#9. The stack was observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015 and PTI No.133-19A.

EUAMU:

This emission unit consists of a natural gas-fired Air Makeup Units (AMU) with a combined heat capacity of 106.5 MMBtu/hr. This emission unit serves the K2 paper machine processes. This emission unit has a limit of 262.8 MMCF/yr for natural gas usage on a 12-consecutive month rolling basis and a NOx emissions limit of 6.6 tpy on a 12-consecutive month rolling basis. Facility records show that they are under each of these limits. Records of NOx emissions and natural gas usage were requested and reviewed for the time period of August 2022 through September 2023. The highest 12-consecutive month NOx emission occurred during the 12-consecutive month period ending in March 2023 when 4.97 tons of NOx was emitted. The highest 12-consecutive month natural gas usage occurred during the 12-consecutive month period ending in March 2023 when 198.78 MMCF/yr.

EUCOOLINGTW1:

This emission unit consists of a utility cooling tower with a 6,227 gallon per minute water flow rate at serves the K2 paper machine processes. This emission unit is limited to total dissolved solids (TDS) of 860 ppmw. The unit has a vendor-certified maximum drift rate of 0.001% or less. Records for the time period of August 2022 through September 2023 were requested and reviewed. Facility records show no exceedances of the limit. After a review of maintenance, calibration, and setting changes for the blow-down system, it appears that GPI is adequately maintaining the blow-down system.

Graphic Packaging submitted an application to modify PTI No. 133-19A. One of the modifications was to increase the diameter of the cooling tower stacks. The three stacks associated with this emission unit are currently over the maximum diameter limit of 144 inches and the modification to PTI No. 133-19A was recently issued on December 13, 2023, as PTI No. 133-19B which corrected the stack diameters . A Violation Notice was sent for this issue as a result of the previous inspection. At this time no further action is required.

EUSTARCH:

This emission unit consists of a 10,600 cubic foot silo, starch preparation and handling equipment, starch application equipment, cylindrical jacket with conical discharge, and includes a dust bin vent filter serving the K2 paper machine processes. No visible emissions were noted during the site visit. The dust bin vent filter only operates when the silo is being loaded. Maintenance records for the time period of August 2022 through September 2023 were requested and reviewed. After a review of the maintenance records it appears that GPI is adequately maintaining EUSTARCH.

One stack is listed in association with EUSTARCH. The stack was observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in PTI No.133-19A.

EUK1MACHINE:

This emission unit is a paperboard machine that was installed in the 1990s and produces paper in three layers. It has an in-line coating process, uses six drying ovens to remove water, and is capable of producing 1000 tons of paper per day. They use both an air knife coater and a bar coater, and the starch prep/mix is controlled by a wet scrubber. EUK1MACHINE was operating during the inspection. The stack for the starch prep scrubber was observed with no visible emissions noted. As noted in a previous inspection, white staining was observed on the wall behind the stack which indicates that particulate matter does get emitted during cleaning or upset conditions.

EUK1MACHINE is limited to 41.4 tpy of volatile organic compounds (VOC) emissions on a 12-consecutive month rolling basis, 3,934.1 lbs/yr of Formaldehyde emissions on a 12-consecutive month rolling basis, 12,841.4 lbs/yr of Acetaldehyde emissions on a 12-consecutive month rolling basis, 39.8 lbs/day of Acetaldehyde emissions on a calendar day basis, 58.9 lbs/yr of Acrylonitrile emissions on a 12-consecutive month basis, and 240.0 lbs/yr of Acrylamide emissions on a 12-consecutive month basis. EUK1MACHINE also has a material limit of 0.5 lb/gal minus water as applied VOC content for coating materials used. Records for EUK1MACHINE were requested and reviewed for the time period of August 2022 through September 2023. The highest 12-consecutive month VOC emissions occurred during the 12-consecutive month period ending in August 2022, when 9.77 tons of VOC was emitted. The highest 12-consecutive month Formaldehyde emissions occurred during the 12-consecutive month periods ending in October 2022 and December 2022, when 7.62 lbs of Formaldehyde was emitted. The highest 12-consecutive month Acetaldehyde emissions occurred during the 12-consecutive month period ending in August 2022,

when 5,108.24 lbs of Acetaldehyde was emitted. The highest daily Acetaldehyde emission occurred on August 12, 2022, when 16.33 lbs of Acetaldehyde was emitted. Records indicate that Acrylonitrile and Acrylamide were not emitted during the time period covered by this inspection. Records indicate that the highest VOC content in lb/gal (minus water) as applied for VOC content was 0.005 lb/gal for the top coating curtain during the months of August 2022 and November 2022.

Five stacks are listed in association with EUK1MACHINE. The stacks were observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015.

EUK3MACHINE:

This emission unit is a paperboard machine that was installed in the 1950s and produces paper in eight layers. It has an in-line coating process, produces a third of what K1 can, and uses presses to remove water. The starch prep/mix historically vented uncontrolled. GPI installed a scrubber in 2019 to control emissions from the starch prep/mix to mimic the control of EUK1MACHINE. EUK3MACHINE was not in operation during the site visit and should be noted that this emission unit has been decommissioned as of July 2023 but still remains on site.

EUK3MACHINE is limited to 20.8 tpy of VOC emissions on a 12-consecutive month rolling basis, 736.3 lbs/yr of Formaldehyde emissions on a 12-consecutive month rolling basis, 2,367.9 lbs/yr of Acetaldehyde emissions on a 12-consecutive month rolling basis, 8.2 lbs/day of Acetaldehyde emissions on a calendar day basis, and 11.0 lbs/yr of Acrylonitrile emissions on a 12-consecutive month basis.

EUK3MACHINE also has a material limit of 0.5 lb/gal minus water as applied VOC content for coating materials used. Records for EUK3MACHINE were requested and reviewed for the time period of August 2022 through September 2023. The highest 12-consecutive month VOC emissions occurred during the 12-consecutive month period ending in August 2022, when 2.23 tons of VOC was emitted. The highest 12-consecutive month Formaldehyde emissions occurred during the 12-consecutive month periods ending in August 2022 through July 2023, when 6.12 lbs of Formaldehyde was emitted. The highest 12-consecutive month Acetaldehyde emissions occurred during the 12-consecutive month period ending in August 2022, when 652.25 lbs of Acetaldehyde was emitted. The highest daily Acetaldehyde emission occurred on June 30, 2023 when 4.53 lbs of Acetaldehyde was emitted. Records indicate that Acrylonitrile was not emitted during the time period covered by this inspection. Records indicate that the highest VOC content in lb/gal (minus water) as applied for VOC content was 0.027 lb/gal for the A/K coating during the month of September 2022.

Eight stacks are listed in association with EUK3MACHINE. The stacks were observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015.

EUCONVERTDEPT:

This emission unit consisted of an off-line paperboard coater. This emission unit did not operate during the time period covered by this inspection. This emission unit has been decommissioned and is no longer on site.

EU01GASTANK:

This emission unit consists of an existing stationary gasoline dispensing facility that has a maximum monthly gasoline throughput of less than 10,000 gallons. GPI appears to be adequately operating the EU01GASTANK as required. Monthly gasoline throughput records were requested and provided for the time period of August 2022 through October 2023. The records indicated that EU01GASTANK did not exceed the maximum design throughput of 10,000 gallons on a monthly basis. EU01GASTANK had a total throughput of 1,606.5 gallons during the 2022 calendar year and 2,336.2 gallons so far in 2023.

FGK2MACHINE:

This flexible group consists of a 2,400 tons per day paperboard machine with in-line coating process that was installed in 2021. This emission unit includes the wet end process, steam heated drying cylinders, coating preparation and handling equipment, curtain coater and drying ovens.

FGK2MACHINE is limited to 29.3 tpy of VOC emissions on a 12-consecutive month rolling basis, 16.5 tpy of NOx emissions on a 12-consecutive month rolling basis, 5,685 lbs/yr of Acetaldehyde emissions on a 12-consecutive month rolling basis, and 116 lbs/yr of Acrylamide emissions on a 12-consecutive month basis. FGK2MACHINE also has a material limit of 657,000 tons/yr of paperboard produced. Records for FGK2MACHINE were requested and reviewed for the time period of August 2022 through October 2023. The highest 12-consecutive month VOC emissions occurred during the 12-consecutive month period ending in February 2023, when 9.51 tons of VOC was emitted. The highest 12-consecutive month NOx emissions occurred during the 12-consecutive month period ending in August 2023, when 7.22 tons of NOx was emitted. The highest 12-consecutive month Acetaldehyde emissions occurred during the 12-consecutive month period ending in February 2023, when 3,781.81 lbs of Acetaldehyde was emitted. Records indicate that Acrylamide was not emitted during the time period covered by this inspection. The highest 12-consecutive month paperboard production occurred during the 12-month period ending in October 2023, when 570,847 tons of paperboard was produced.

GPI is also keeping records of the amount of natural gas burned on a monthly basis, however there is not a limit to natural gas consumption of FGK2MACHINE. VOC content of material used in FGK2MACHINE is also being tracked as required.

GPI submitted an application to modify PTI No.133-19A to increase the MMBTU/hr limit from 2.8 MMBTU/hr to 5.46 MMBTU/hr for EUK2CALENDARHEAT1. This modification request was due to EUK2CALENDARHEAT1 being currently over the limit of 2.8 MMBTU/hr, which is in violation of their current permit. This violation was addressed in the previous inspection and the modification to PTI No. 133-19A was issued as PTI No. 133-19B on December 13, 2023.

Twelve stacks are listed in association with FGK2MACHINE. The stacks were observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in PTI No. 133-19A.

FGBOILERS10-11:

This flexible group consists of two 311 MMBTU/hr natural gas fired boilers that are used to heat steam for dryers and hot water to be used on the paper machine. These boilers equipped with low-NOx burners and flue gas recirculation. During the inspection Boiler 10 was operating at at 152.1 kpph, and Boiler 11 was operating at 154.7 kpph. As required by PTI #133-19A, the facility submitted a Malfunction Abatement Plan on August 8, 2022. This plan was approved by EGLE on August 18, 2022. Boilers 10-11 started up on February 2, 2022. GPI is required to keep fuel supplier records to show that they are under the sulfur content limit in 40 CFR 60.41b. GPI provided fuel information from Consumers Energy Company that shows the fuel is meeting the sulfur content requirements. GPI is also keeping records of NOx emissions using their CEMS. NOx emission records were requested and reviewed for the time period of August 2022 through September 2023. The records indicate that the Boilers are under the NOx limit of 0.036 lb/MMBTU. They recently conducted a RATA test on their CEMS units, which showed compliance. GPI conducted stack testing on Boilers 10-11 for PM10 and PM2.5 in October of 2022, which was a retest to stack testing conducted in June 2022 that failed to show compliance with PM10/2.5 hourly emission limits, for which a violation was sent to the facility during the previous inspection. The October 2022 stack testing results showed that Boilers 10-11 are complying with the 0.004 lb/MMBTU PM10/2.5 limit. During the facility walk through, Boilers 10-11 were in operation. Below are the operational values collected from the CEMS units during the inspection:

Boiler 10	
Operating Mode	152.1 Kpph
lb/MMBtu NOx	0.032
CO₂	8.6

Boiler 11	
Operating Mode	154.7 Kpph
lb/MMBtu NOx	0.031
CO₂	8.6

GPI is required to have a MAP for this unit, which has been implemented and maintained.

Two stacks are listed in association with FGBOILERS10-11. The stacks were observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in PTI No. 133-19A.

FGPROJECT2019:

This flexible group is for all new equipment being permitted in the 2019 project. This flexible group is required to develop and implement an Odor Investigation Plan and a Nuisance Minimization Plan prior to operation. GPI has an Odor Investigation Plan in place that was approved by AQD on June 4, 2020 and the facility submitted a Nuisance Minimization Plan for Odors (NMPO) that was approved by EGLE on August 18, 2022.

FGRULE290:

This flexible group is for their ethylacetate emissions from EUCONVERTETHYLACETATE. It was noted during the site visit that this flexible group/EUCONVERETHYLACETATE is no longer operating and has been removed from the facility.

FGCOLDCLEANERS:

This flexible group is for any cold cleaner that is grandfathered or exempt from Rule 201, pursuant to Rule 212(2)(h) and Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

GPI has one Safety Kleen unit in the stock-prep area that was installed in 1992. This cold cleaner is 6 ft² and is not heated or agitated. The solvent is 6.65 lbs/gal VOC. During the site visit it was noted that the instructions were posted, and the lid was closed.

FG-RICE-MACT4Z:

This flexible group is for each existing emergency stationary reciprocating internal combustion engine (RICE) as identified within 40 CFR Part 63, Subpart ZZZZ, 63.6590 (a)(1) and is exempt from the requirements of Rule 201 pursuant to Rules 282(2)(b) and 285(2)(g).

GPI has an existing fire pump with an hour meter. The fire pump is limited to 100 hours of operation per calendar year for maintenance and readiness testing, with 50 of those hours allowed for non-emergency situations. Records of maintenance and operating hours were requested and reviewed for the time period of August 2022 through September 2023. The operating hour records indicate that the fire pump operated within the allowable limits. The fire pump is inspected on a weekly and annual basis as per the requirements of Subpart ZZZZ. During the site visit, the non-resettable hour meter read 941.81 hours.

Wastewater Treatment Area:

During the site visit, AQD staff observed the clarifier and associated sludge dewatering buildings to assess the odors. This included the sludge pile, clarifier, AES

building and the sludge drum filter building. Odors were observed in all of these areas except for the sludge pile. It was also noted that a new scrubber was being install in the AES building to help control odors. The scrubber appeared to be powered via electricity. AQD staff asked for an exemption determination, including a potential to emit from the scrubber to have on file at the Kalamazoo District Field Office. The exemption determination was received on December 13, 2023.

Section 2: Carton Plant

After leaving the mill, AQD staff met with Spencer Macko, EHS Manager for the Carton Plant, who provided a facility walk through and records required by MI-ROP-B1678-2015. This section of the facility prints a variety of paperboard products like tissue boxes, cereal boxes, and cake mix boxes. They were making tissue boxes during the site visit.

FGWEBPRESSES:

This flexible group consists of six heat-set, web-fed, offset lithographic printing presses with in-line flexographic single roller coaters and video jet printers (ultraviolet cured). All the presses are manual wash. There are now only five heat-set web-fed lithographic printing presses at the facility. EUWEBPRESS#6 was physically removed in March of 2020.

During the site visit, the solvents and inks were kept in closed containers when not in use. The used rags with solvent also get placed into a closed container. Scrap pieces of trimmed paper are conveyed by ducts to balers and then sent back to the mill for reuse. They have a dust collector for this process that is vented internally and appears to be c exempt from Rule 201 permitting per Rule 285(l)(vi)(B).

FGWEBPRESSES has emission limits of 9.9 pph of VOC for EUWEBPRESS#1-3 combined, 41.8 tpy of VOC on a 12-consecutive month rolling basis for EUWEBPRESS#1-3 combined, 26.0 tpy of VOC on a 12-consecutive month rolling basis for EUWEBPRESS#4-5, and 13.5 tpy of VOC on a 12-consecutive month rolling basis for EUWEBPRESS#6. Records of VOC emissions were requested and reviewed for the time period of August 2022 through October 2023. The highest 12-consecutive month VOC emissions from EUWEBRESSES#1-3 occurred during the 12-consecutive month period ending in October 2023 when 15.95 tpy was emitted, which equates to 3.64 pph of VOC. The highest 12-consecutive month VOC emissions from EUWEBPRESSES#4-5 occurred during the 12-consecutive month period ending in October 2023 when 11.90 tpy of VOC was emitted. As stated above EUWEBPRESS#6 was physically removed from the facility in March of 2020 and the records reflect zeros for this emission unit as they are still keeping track as required until the emission unit can be removed from the permit. Records of SDS, vendor formulation, and a list VOC containing materials along with usage were requested and reviewed. No issues were noted. The fountain solution has a limit of 5.0% by weight as applied. The fountain solution is shipped in a concentrated formulation with a VOC content of 14.8% by weight. The facility mixes 5ozs of the fountain solution per gallon of water, which reduces the VOC content, as applied, to below the 5.0% VOC limit. All of the inks have a non-volatile fraction of more than 60% by weight.

In 2006, EGLE staff approved an alternate method of determining the VOC content for the materials used on the web-presses than by using Method 24 testing. Therefore, they are in compliance with this permit condition.

Five stacks are listed in association with FGWEBPRESSES. The stacks were observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015.

FGRULE290:

This flexible group is for any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290. The emission units within this flexible group include seven gluers (EUGLUER#1-7), EUSILICONE and EUCARTON290ETHAC, which is their ethyl acetate usage. They are limited to 1000 lbs/month for each material. Emission records were requested and reviewed for all the Rule 290 emission units. The highest ethyl acetate emissions for emission unit EUCARTON290ETHAC occurred during the month of March 2023 when 64 lbs of ethyl acetate was emitted. EUSILICONE is for the application of food-grade silicone to palletizer tables. The highest VOC, Hexane isomers, and n-Hexane emissions occurred during the month of March 2023 when 195.94 lbs of VOC, 191.90 lbs of Hexane isomers, and 13.74 lbs of n-Hexane. Emissions from EUGLUER#1-7 showed that Isopropyl alcohol emissions and acetone emissions were consistently under the 1000 lb/month limit.

FGCOLDCLEANERS:

This flexible group is for any cold cleaner that is grandfathered or exempt from Rule 201, pursuant to Rule 212(2)(h) and Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

There are three cold cleaners at the carton plant. They were all installed either in 1992 or 2007 and are all under 10ft² surface area and are not heated or agitated. They use either Hickory Ink Wash (5.44 lbs/gal VOC content), or Zone Defense (6.61 lbs/gal VOC content). The facility maintains the units themselves and stores the two solvents in solvent cabinets. The spent material gets hauled away by Univar. During the site visit it was noted that the lids were closed when not in use and the rules were posted.

Compliance Determination

Based on the observations made during the inspection and review of the required records and reports, GPI appears to be in compliance with MI-ROP-B1678-2015, PTI No. 133-19A, and all other State and Federal Air Pollution rules and regulations.

NAME Michael T. Cox

DATE 12/19/2023

SUPERVISOR Monica Brothers