

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

B762873951

FACILITY: Transcontinental Battle Creek		SRN / ID: B7628
LOCATION: 155 Brook St., BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Ricky Schaefer ,		ACTIVITY DATE: 08/15/2024
STAFF: Jared Edgerton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Air Quality Inspection		
RESOLVED COMPLAINTS:		

On August 15, 2024, Air Quality Division (AQD) Staff (Jared Edgerton) arrived at 155 Brook St, Battle Creek Michigan at 11:00 AM to conduct an unannounced air quality inspection of Transcontinental Battle Creek. The purpose of the inspection was to determine the facility's compliance with permit No. 362-99G, which was issued on July 11, 2024, and all other applicable state and federal regulations.

Transcontinental has been operating in this building since 2018, five days a week, on a 24-hour schedule. The facility is permitted as a Synthetic Minor source for volatile organic compounds (VOCs) and for individual and aggregate hazardous air pollutants (HAPs). Transcontinental prints labels on plastic film used in a wide range of consumer product packaging. Some of the items being produced at the time of the inspection was Tide laundry detergent pods, Costco Kirkland brand packaging for various produce, and Cascade dishwasher products.

Upon arrival, the weather was mostly cloudy, and staff did not observe any visible emissions or detect any odors from the facility. After using the kiosk to check in, staff met with Mr. Ricky Schaefer, Facility Maintenance Manager. He answered all operational questions, and escorted staff for the inspection tour. Below is a summary of the results of the onsite inspection.

Inspection Walkthrough:

AQD Staff started the inspection by asking general operational questions. At the time of the inspection, the facility did not have any boilers, emergency generators, or cold cleaners located in the building. The building used to house a few exempt boilers that were associated with rotogravure press 808 and 806. However, in 2022, both presses and all boilers were removed from the facility. AQD staff also asked what other equipment has been removed. Mr. Schaefer stated that Flexographic Printing Press No. 100 was also removed recently, and this change to the facility is reflected in the new permit.

The first Emission Unit seen on the inspection was EU_LAM-404. This is a solventless laminator that was installed in 1981. Mr. Schaefer stated that this laminator has not operated since June 2023, due to the production of the item concluding. The facility does not plan to resume operations with this device for the foreseeable future. AQD staff did not observe any issues with the Emission Unit. The inspection continued past various machine shop devices which included a lathe, grinders, and various machining units. These are considered exempt under Rule 285 (2)(I)(vi)(B). There is also a plunger pad solvent station that uses ethyl acetate or n-propyl alcohol for general cleaning needs. Staff did not visually confirm if this station was still within this area, but it was at the time of the last inspection. This pad station

is considered exempt from permitting under Rule 285(2)(r)(iv). There is also a plates room with five slitting machines. This was observed by staff, and exhaust is routed to vent internally. All waste plastic is landfilled. This process is exempt under Rule 285(2)(l)(vi)(B).

The next stop on the tour was just outside the permanent total enclosure (PTE), and within the PTE is FG_FLEXO-RTO-PW. The facility is not allowed to operate this Flexible Group unless the PTE is at a minimum pressure of -0.007 inches of water on a continuous basis. Proper operation requires that the PTE is operating at a lower pressure than the adjacent areas, so that the air flows into the PTE through a natural draft opening (NDO). When arriving at one of the doors to the PTE, it was apparent that the door was not operating normally and would not close automatically. Mr. Schaefer stated that he had a crew assigned to fix the door immediately. AQD staff stated that they would want to see the door working normally again by the time this inspection report was complete, in order to avoid this being deemed a violation. Evidence of this was received by staff, and by the time the inspection was completed, the door had been fixed. Within the PTE are Emission Units, EU_FLEXO-102, EU_FLEXO-110, EU_FLEXO-112, EU_SideLoad, and EU_TopLoad. In another room within the PTE, construction was active on the site of the new flexographic press EU_FLEXO-114. EU_LAM-402 has already had its construction completed, but appeared to not be running at the time of inspection. EU_FLEXO-114 and EU_LAM-402 are also located within the PTE, but are permitted in their own Flexible Group, FGFLEXO114LAM402.

While walking into the main room of the PTE, AQD staff noted that a couple of the presses were actively running. On a wall in the middle of the room is a panel with a visible and audible alarm, which is associated with the differential pressure 1. AQD staff had concerns that the PTE was not working due to the construction in the other room and the other roll top door not operating as intended. The PTE pressure reading was seen as high as 0.043 inches of water. At this time Mr. Derek Smith joined the inspection tour, Mr. Smith is taking over as Production Manager for Transcontinental. He stated that when more Emission Units are operating within the PTE, the PTE easily keeps the air flowing into the right space. The inspection tour stayed by the alarm panel for about 10 minutes to see if the alarms would go off. AQD saw the pressure go above the maximum pressure allowed, but only for a few seconds. Mr. Smith turned on multiple presses to show the pressure go down. At about that same time, the roll top door that was not working, was fixed. Staff saw the pressure go back below the limit to about -0.074 inches of water. Staff believes that the PTE is functioning in a satisfactory manner.

From the alarm panel, the tour continued into a room within the PTE, right next to EU_FLEXO-112 and EU_FLEXO-110. This room is described as the washroom that holds the Renzman side loading (EU_SideLoad) and Renzman Top Loading (EU_TopLoad) solvent distillation units. Like all the other units in FG_FLEXO-RTO-PW, these units are controlled by two parallel RTOs. The facility distills as much solvent out of the process as possible and uses the recovered solvent to clean parts in the facility. At the time of the inspection the units were not in use and looked to be properly maintained.

The tour then moved past the laminators and presses to another large open room within the PTE. A lot of construction was taking place here. Shelving was being installed in this room to increase the storage capacity of the facility. Staff was told

this room will not be used for operations but just storage. On the side of the room is the access for the roof. In addition, the control panel for the RTOs and the differential pressure 2 panel for the PTE was located here. This panel was reading at -0.012, which appear to be compliant with the requirements in their PTI. Next to the door to go outside is the control panel for the Enterprise and Clean Switch RTOs. Control panels monitor temperature continuously and send a reading to the data acquisition system (DAS) every two minutes. The panel for the Enterprise was reading 1595 degrees F and 2.38" WC. The Clean Switch panel read 1586 degrees F and 2.14" WC. The minimum temperature allowed for the RTOs is 1590 degrees F. At the time of inspection, Clean Switch, was observed to be operating below this minimum temperature at times. However, the temperatures fluctuated above and below this minimum temperature limit very quickly. It appeared to AQD staff that more investigation was needed through a records review to determine if the temperature is fluctuating below the minimum temperature often enough to warrant a violation of this condition. This condition's compliance status is discussed below within the records review portion of this report.

After reviewing the RTO panels, the tour moved outside to the RTOs themselves. AQD staff looked over the units and could tell that both units were operating at the time of inspection. The RTOs automatically switch the exhaust streams between each other after a certain amount of time. Most of the time, the demand from the facility only requires one exhaust flow. If exhaust levels are high, both RTOs have the ability to operate simultaneously. The tour then continued onto the roof, where AQD staff observed no visible emissions from the RTO stacks or odors of solvents.

Back inside, the tour moved back to the construction area where shelves were being made. We passed by presses and rollers that are used on the units. The tour ended with us walking past some storage areas for finished goods, as well as tanks for ink and solvents. All lids were on the containers and appeared to be stored properly.

Once the facility tour was complete, Mr. Schaefer was informed of a records request which would be sent to him by email. Mr. Smith and Mr. Schaefer submitted the records to AQD on time, and the results AQD's review of these records are described below.

Conclusion of Inspection / Records Review Compliance Determination:

All permit limits were compared to the highest month recorded by the facility during the last two years.

EU_LAM-404

Based on the special conditions set in the permit, the facility is required to keep records for the VOC emissions on a monthly and 12-month rolling basis. Records submitted during the records request show that the 12-month rolling VOC emissions in December 2022 were 3.359 lbs or 0.0016 tpy. This is well below the allowed VOC emission limit of 0.01 tpy. The highest monthly VOC emissions was recorded in September 2022 with 0.693 lbs being emitted. The facility maintains MSDS information in an SDS online database. The actual hours of operation are tracked monthly. The total hours of operation in 2022 were 2,286.60 hours. The equipment is labeled both on the machine itself and on the room outside where the unit is located.

It appears that EU-LAM-404 is in compliance with all requirements in PTI 362-99G. In July 2023, LAM-404 was shut down and put out of service.

FG_FLEXO-ROTO-PW

Covers were observed on EU_SideLoad and EU_TopLoad, which is in compliance with Rule 707. In 2004, a stack test was conducted showing the VOC destruction efficiency from the RTOs at 98%. This shows compliance with Rule 624. The PTE panel was observed to show compliance with the minimum reading of -0.007 inches of water. Panel differential pressure 1 was -0.074 inches and pressure 2 was -0.012 inches. It was observed that the pressure changed when someone would enter the PTE, and when the door wasn't working properly. Once it was fixed, the pressure normalized. It is also important to note that an interlock system is installed on the PTE. If the pressure is out of spec for the PTE, an amber light will flash, and if it remains out of spec for more than 15 minutes, the system will shut down all the Emission Units within the PTE. Transcontinental has two VOC emission limits, 33.1 pph and 75.0 tpy for a 12-month rolling time period. Records submitted shows that January 2022 had the highest pph and tpy emitted. The month shows total lbs VOC per hour emitted as 2.04 lb/hr. In addition, 12.15 tpy was recorded, which shows the facility being well below the limit. It appears that this Flexible Group is compliant with the permit.

RTO-1 and 2

Minimum VOC capture efficiency of 100% has been verified by several performance tests on the RTOs, and destruction efficiency of VOC was last tested to be 98%. The facility is monitoring and recording the temperature in both the Clean Switch and Enterprise RTOs continuously on an Allen Bradley Process Logic Controller (PLC) which sends data to the data acquisition system (DAS). At the time of the inspection the temperature of the Enterprise RTO was 1595 degrees F, and the Clean Switch was 1586 degrees F. The minimum temperature that the RTOs are allowed operate under the facility's permit is 1590 degrees F. With further review of the temperature log, and conversations with Mr. Schaefer, it is determined that as long as one RTO is running above the minimum temperature, then the system is deemed to be compliant. Mr. Schaefer stated that if the temperature ever goes below the minimum, then all of presses and laminators shut off automatically. This happens only when both of the RTOs are below the temperature required. Alarms are also triggered when this occurs, which require electricians and operators to manually resolve. AQD staff asked what the set points were for the RTOs, and Mr. Schaefer stated that it is set at the minimum temperature of 1590 degrees F. Staff suggested that the set point be raised 20 to 30 degrees F in order to prevent the RTOs from fluctuating below the permitted minimum in the future. This is to avoid potentially being out of compliance with permit requirements, but also to prevent operations from halting each time the temperature dips. Mr. Schaefer agreed with this idea and said that the company that is in charge with the upkeep of the RTOs will be called to adjust the RTOs setpoints. All records requested were received and appeared to be compliant with the permit requirements.

FGFLEXO114LAM402

This is a new addition to the permit with the most recent modification. This Flexible Group includes one flexographic printing line (EU_FLEXO-114) with one laminator (EU_LAM-402). At the time of the inspection, only the laminator is fully installed at the facility. There are no records kept yet for the EU_FLEXO-114 portion due to the unit not being completed. The laminator has been active since May of 2023 and does have VOC emission records for hourly and 12-month rolling time periods. The highest month for pounds per hour was 0.301 pph in July 2024. July 2024 also had the highest tpy as well, at 0.000903 tpy. These numbers are well below the hour limit of 18.0 pph and yearly limit of 66.9 tpy. Run hours are also recorded by the facility, showing that 2023 had a total of 441.67 hours. A Malfunction Abatement Plan was submitted for the new Flexible Group and appears to be satisfactory.

FG_FACILITY

Since January 2022, there has been a total of 24.6 pounds or 0.0123 tpy of aggregate HAPs emitted by the facility. March 2022 was the highest emission month for HAPs at 4.0 pounds from printing inks. These totals are well below the limits for each individual HAP of less than 9.0 tpy, and aggregate HAPs of less than 22.0 tpy. The facility-wide VOC emission limit is less than 90 tpy. The facility is keeping satisfactory records for monthly and 12-month rolling time periods. March 2022 saw the highest monthly VOC emissions of 1,777.99 lbs or 0.8888 tons. The highest 12-month rolling month was January 2022 with 12.150 tpy. This is well below the 12-month rolling limit.

After reviewing what was observed during the on-site inspection and determining that records were satisfactory with the permit requirements, it appears that TC Transcontinental is currently in compliance with PTI 362-99G, as well as all other applicable state and federal regulations. AQD staff concluded the inspection at 12:20 PM. -JLE

NAME J. EdgertonDATE 9-30-24SUPERVISOR Monica Brothers