

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

B171554276

FACILITY: Industrial Container Services - MI, LLC		SRN / ID: B1715
LOCATION: 4336 HANSEN ST SW, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Tyler Mayo , Plant Manager		ACTIVITY DATE: 07/08/2020
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Announced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an announced, scheduled inspection and met with Tyler Mayo, Facility Manager. I spoke with Mr. Mayo earlier in the morning to notify him of my arrival at 12:30 PM. Mr. Mayo and I went into the office and I explained the purpose of the inspection. We were joined by Robert Werner, Maintenance Lead who assisted on the inspection as well. On June 3, 2020 I had sent a records request via email, and the information presented below is based on the records request and on-site inspection. Proper PPE was utilized, and social distancing was maintained to the extent possible during the inspection. Since the time of the inspection, AQD staff has learned that Mr. Mayo is no longer with the company. Communications from mid-August to the date of the report were conducted mainly with Mike Laarman, Maintenance Manager who has been with the company for two years.

FACILITY DESCRIPTION

Industrial Container Services- MI, LLC (ICS) is a drum reconditioning facility operating pursuant to Permit to Install No. 430-83A, which covers an interior and an exterior drum coating line as well as purge and cleanup operations. The facility also operates a drum reconditioning furnace pursuant to PTI No. 874-91B which limits PM. Steel drums are brought in via tractor trailer, and as the drums are emptied out of the trailer, the lid is removed, and they are verified that they are empty pursuant to RCRA regulations. If the drum is not empty, it is sent back to the originator. Following inspection, the drums are placed on a conveyor that travels into the drum reclamation. The furnace was re-permitted in 2007 and replaced in 2008. No changes were made to the permit special conditions at that time. Following the furnace, the drums go through one of two wheelabrators, the lids go through a cover blaster, and the rings go through a ring blaster. These use premium cast steel shot to remove any remaining debris from the drums, lids and rings. There is a baghouse for each and a total of four on-site, however only three are currently in use. The coverblaster dust collector is a cartridge style, while the #1 and #2 inline dust collectors are bag style and are the same size.

The material is collected in the drop chute of the collectors. Following that, the interior and exterior of the drum are painted. Each booth is equipped with double bank filters and ovens for curing. The coatings come pre-mixed and ICS pulls straight from the agitated drum for coating. No formulation or mixing takes place on site.

This facility has been the source of odor complaints over the years however, has never been cited in violation of Rule 901. No odors were identified during a brief odor evaluation conducted around the facility prior to the inspection.

COMPLIANCE EVALUATION

PTI No. 874-91B

This PTI covers a 16.0 MMBtu drum reconditioning furnace, waste heat boiler (no supplemental fuel) and a 16.96 MMBtu thermal oxidizer. This permit limits the particulate matter (PM) emission rate to 0.30 lb/1,000lb of exhaust gas, corrected to 50% excess air. The application states that there is a maximum exhaust flowrate of 9,000 scfm when converted to a temperature of 1,600° F is 34,981 acfm. Due to the very high allowable PM emission rate, during the 2016 inspection I asked Senior Permit Engineer Dave Riddle to help me with the calculation. Mr. Riddle confirmed that it is appropriate to utilize the value at scfm to run the calculations, so data is standardized. Corrected to 50% excess air that is a potential to emit of 49 tons PM based on the data as supplied in the permit to install application. ICS can only accept drums that are empty pursuant to 40 CFR 261.7(b). Empty is defined as 1" or less of liquid. Any drum received that is not empty is placed off to the side for eventual return to the originator. They are also not permitted to accept any drum that formerly contained acute hazardous waste as listed in 40 CFR 261.33(e). To be an acute hazardous waste, it must be 100 percent pure or the sole active ingredient in a chemical formulation. ICS does not deal with pharmaceutical or pesticide manufacturing facilities, and therefore does not accept acute hazardous waste.

The oxidizer generally runs without issue, and a section of the unit was recently replaced as identified in the attached maintenance/repair invoice. I was able to go through past temperature charts that had been recently scanned for a US EPA 114r request. On the chart, the afterburner temperature generally ranges from 1,700-2,000°F and the low-end set point is 1,710°F. The furnace temperature peaks at over 1,800°F and has a hi-end set point of 2,000°F. An external visual inspection was conducted on the afterburner, and no obvious structural issues were observed. The pit in the furnace is cleaned out of solids daily and that material is disposed of. The permit requires a monthly visual inspection of the thermal oxidizer, which they do more frequently. Due to the excess temperature of the gasses leaving the afterburner, and the fact that the system is under negative pressure, there is a gap in the ductwork prior to the fan. This is to bring in dilution air to cool the gas, so the fan is not damaged. If stack testing is required on the furnace in the future, the probe should be placed in a location prior to the addition of dilution air.

The opacity monitor is located in the stack after excess air is added. PTI No. 814-91B requires the facility to monitor and record visible emissions. The current opacity monitor was installed in 2008. The system records data points on a paper chart, and additional information was requested to evaluate the adequacy of the data collected.

During a review of the data, AQD staff learned that while information is recorded on the paper chart, there is no timeframe or opacity value associated with it. As such, the data collected cannot be used to determine compliance with the permit and at this time is not considered acceptable to the Air Quality Division. Special Condition 1.11 states the following:

The permittee shall monitor and record the visible emissions from the furnace on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. An alarm shall be set to go off at an opacity as established by the District Supervisor. (R 336.1301)

The data is not transferred into 6-minute averages which is the basis for determining compliance with the opacity limit established in R 336.1301 (Rule 301). Rule 301 states that a person shall not cause or permit to be discharged into the outer air from a

process or process equipment a visible emission of a density greater than the most stringent of the following: a 6-minute average of 20% opacity, except for 1 6-minute average per hour of not more than 27% opacity. Compliance with Rule 301 is not able to be determined from the data on the paper chart. Going forward, ICS representatives also need to communicate with the district supervisor to identify and agree upon an alarm set point. A violation notice will be issued.

I reviewed the Preventative Maintenance and Malfunction Abatement plan for the drum reclamation furnace and afterburner, and while there is an image of the visible emissions paper chart recording system, there are no associated maintenance or calibration activities identified. Based on discussions with facility staff during the inspection, maintenance is done, however it should be added to the plan. The violation notice will include a request to modify the plan to include maintenance for the existing system.

The AQD has learned that ICS is planning to replace the opacity monitor in the future. Information regarding placement of monitors and the suggestion to coordinate with the AQD Technical Programs Unit has been provided to company representatives.

PTI No. 430-83A

This PTI covers an exterior barrel coating line, an interior barrel coating line and cleanup and purge operations associated with the two. Each line includes an automated spray application system and associated ovens. The ovens were installed in 1982 and the paint systems were installed in 1993. Each appears to be appropriately covered by the PTI which was issued post-1993. Housekeeping in these areas needs improvement.

This PTI limits emissions of VOC and HAP for the coating lines and cleanup/purge operations only. It has historically been considered a facility-wide Opt-out permit and will continue to be.

The total VOC emission rate from the exterior barrel coating line is limited to 24.5 pounds per hour nor 22.7 tons per 12-month rolling time period. The facility is keeping the pounds per hour value on a monthly basis in the spreadsheet, and each month's values indicated compliance with the limit. Total 2019 VOC emissions were 13.16 tons. They are reporting around one ton of emissions per month, and while the 12-month rolling total isn't calculated properly the records indicate compliance with the limit. The facility has made an attempt to calculate 12-month rolling records based on the discussions during the previous inspection, however it is still incorrect. I sent them the AQD 12-month rolling total spreadsheet so that they can correct it and calculate the rolling total correctly going forward.

The total VOC emission rate from the interior barrel coating line is limited to 22.4 pounds per hour nor 10.5 tons per 12-month rolling time period. The facility is keeping the pounds per hour value on a monthly basis in the spreadsheet, and each month's values indicated compliance with the limit. Total 2019 VOC emissions were 5.56 tons. They are reporting around ½ a ton of emissions per month, and while the 12-month rolling total isn't calculated properly the records indicate compliance with the limit. The facility has made an attempt to calculate 12-month rolling records based on the discussions during the previous inspection, however it is still incorrect. I sent them the AQD 12-month rolling total spreadsheet so that they can correct it and calculate the

rolling total correctly going forward.

The total VOC emission range from the cleanup and purge operations shall not exceed 35.2 pounds per hour nor 9.5 tons per 12-month rolling time period. The records indicate that only acetone is currently used for cleanup which is no longer a VOC. Therefore, no VOC emissions occur from these activities.

The interior coating line has an as applied instantaneous VOC limit of 3.5 pounds per gallon. SDS and formulation data was reviewed, and the information indicates compliance with the limit.

The exterior coating line has an as applied instantaneous VOC limit of 4.3 pounds per gallon. SDS and formulation data was reviewed, and the information indicates compliance with the limit.

No visible emissions were noted from the coating lines at the time of the inspection.

The applicant is maintaining acceptable records of emissions with the above suggestions.

Mr. Mayo was unable to measure the pressure at the cap but provided information that identifies the spray guns as Kremlin Pistolet ATX and the spray cap is marked bx 116 HVLP and has an 0.016" orifice. Mr. Mayo learned that these guns are HVLP. The spray equipment in both coating lines, and all exhaust filters were observed to be in place and operating properly. No apparent changes have been made to the exhaust stacks for the coating lines.

The total emissions of any single HAP emitted from the combination of coating lines and cleanup/purge operations shall be less than 10 tons per 12-month rolling time period and total aggregate HAP's shall be less than 25 tons per 12-month rolling time period. The facility has made an attempt to calculate 12-month rolling records based on the discussions during the previous inspection, however it is still incorrect. Total HAP emissions for calendar year 2019 were 2.0 tons. As such, the facility is able to demonstrate compliance with both the individual and aggregate HAP limits. However, I sent them the AQD 12-month rolling total spreadsheet so that they can correct it and calculate the rolling total correctly going forward.

Additional Notable Items

Housekeeping in the plant was lacking attention to detail. Specifically, I noted that as the drums are flipped over just prior to entering the drum reconditioning furnace, liquids were traveling out of the area onto the ground. The combined liquids were a variety of colors. The area does have a cement floor but did not appear in good condition. This area is also exposed to the elements, and rain would cause dispersion. I suggested that this area be kept clean and free of waste liquids, and they should try to contain them somehow or use an absorbent at a minimum.

Also, I observed several storm drains on-site that were full of material. The areas around the baghouse material collection was not very clean. It also appeared as though some of the steel shot was entering the nearby storm drain. I advised that this area needed to be cleaned immediately. ICS staff were unaware if they had an industrial storm water permit. This area was well kept during the last inspection, however if this area is in disarray during the next inspection, a violation for failure to

capture and collect an air contaminant could be cited.

This information has been shared with the Water Resources Division and Materials Management Division for follow-up as needed.

CONCLUSION

Industrial Container Services, LLC was in non-compliance at the time of the inspection.

NAME April Lazzaro

DATE 08/20/2020

SUPERVISOR 

