

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

N522373619

FACILITY: Bandit Industries		SRN / ID: N5223
LOCATION: 6750 MILLBROOK RD, REMUS		DISTRICT: Bay City
CITY: REMUS		COUNTY: ISABELLA
CONTACT: Jason Daws , Facilities Manager		ACTIVITY DATE: 08/20/2024
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: facility inspection		
RESOLVED COMPLAINTS:		

On August 20, 2024, Ben Witkopp of the Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division (EGLE-AQD) inspected Bandit Industries located at 6750 Millbrook Road in Remus Michigan. Jason Daws, Facilities Manager was the primary contact. Mr. Chris Malek was also present. Jason said they are attempting to broaden the knowledge base among employees throughout the company. Mr. Pat Kyser, who manages the painting area was on vacation at the time.

The facility manufactures large scale horizontal grinders and whole tree chippers as well as tree stump grinders, and traditional hand fed woodchippers. The facility operations are covered by air use permit 397-93(C). The permit reflects Bandit's status as a synthetic minor source for hazardous air pollutants (HAPs). The facility's emissions are primarily volatile organic compounds (VOCs) which result from painting the products. The painting and pretreatment areas are located in the building on the northwest corner of the property. No drying/cure ovens are used.

The facility was subject to an Administrative Consent Order (ACO), No. 2020-17. The ACO included a settlement amount as well as submission of permit required recordkeeping on a quarterly basis for a year. Stipulated penalty amounts were also present in the ACO in case the company failed to comply. However, having successfully fulfilled the requirements of the ACO, Bandit requested the ACO be terminated. The ACO was subsequently terminated on December 6, 2023, and it is no longer in effect.

The company's products require painting. The metal surfaces go through a pretreatment wash to ensure the surfaces are cleaned as well as slightly etched by the small amount of acid in the pretreatment material. The pretreatment material is mixed with water such that the acid is very dilute in the resulting solution that is applied. The cleaning and etching promotes better adhesion of the paint that is subsequently applied. There are two pretreatment areas and powerwashers are used.

The pretreatment solution is collected in floor drains and gets routed to evaporators. The evaporators provide heat, without boiling, to drive off the water. The remaining amount of solids etc. is subsequently properly disposed.

Records of pretreatment material usage were being kept. The highest 12-month rolling time period usage was 3,067 gallons. The usage is below the permitted limit of 5,940 gallons of pretreatment material per 12-month rolling time period.

Once dry, the metal components are coated. The facility has three spray booths. All booths are equipped with exhaust filters and the exhaust is discharged unobstructed vertically upwards. The

filters are changed twice per week. Booth 1 is on the north, 2 is in the middle, and 3 is on the south. The used filters are allowed to dry and then properly disposed.

Each paint booth is equipped with both air-assisted airless spray guns and electrostatic applicators. Air-assisted airless spray guns are only used to apply primer. Electrostatic applicators are used to apply the paint coatings. Jason said they are exploring the use of electrostatic applicators for the primer as well. However, nothing is imminent. When paint lines are flushed, a system recaptures solvents. Heat separates solvents from the paint. The recovered solvent is pumped into a barrel for reuse. The material left over is disposed by Safety-Kleen.

Paints and primers are not used as received. The process used to depend on things being manually mixed in a paint kitchen. That is no longer the case as the company has invested in two ProMIX 2KE mixing units which precisely meter and mix the coatings with solvents prior to coating application. All materials used in coating operations are tracked and taken into account for emission calculations. Each booth is equipped with an electronic meter that measures paint material usage. The meters are manually zeroed at the beginning of each paint application. At the end of application, material usage is hand recorded. The handwritten records are daily transferred to an overall spreadsheet. The usage data is entered into emission calculation spreadsheets to provide records on a monthly basis.

A notable change has occurred in the painting operations. Jason said they switched to a new primer. It had a much lower HAPs and volatile organic compound (VOC) content. This resulted in lower emissions. An added benefit is that it functionally performs better than their previous primer. The change went through a meaningful change evaluation by Bruce Connell of Environmental Partners Inc. The change was found to be acceptable as a result of the evaluation. Jason said safety data sheets (SDS) are checked annually to verify no changes have occurred in formulations. He added the manufacturer will send an updated SDS in the event changes are made. If constituents have changed, they make modifications to the inputs in the emission calculation spreadsheet. The company also retains Bruce to review the emissions records.

When paint lines are flushed, a system is in place to recapture solvents. Material from flushed paint lines is processed in a device that utilizes heat to separate solvents from unused paint material. The recovered solvent is pumped into a barrel to be reused. The paint material left over from the solvent recovery process is disposed of properly by Safety-Kleen.

Emissions are based on material usage, per booth. The same coating products are used in all three booths. The facility tracks weekly usage amounts for each product used. Based on each products VOC content and the amount of material used the VOC emissions from each product are calculated. Calculated VOC emissions for each product are added to get the total VOC emissions for each paint booth. Monthly and 12-month rolling time period records are maintained.

Permit limits are in place for each booth. A monthly limit is established at 2,000 pounds per month. There is also a limit of 10.0 tons per year (tpy) per booth which is based on a 12-month rolling time period.

There is another limit which encompasses all metal parts coating lines at the facility. That limit is 30.0 tpy on a 12-month rolling time period.

Lastly there are limits on HAPs. Each individual HAP is to be less than 8.9 tpy while aggregated HAPs are to be less than 22.5 tpy. Both limits are based on a 12-month rolling time period.

Jason said production demand levels have dropped back to 2018 levels for a variety of reasons which resulted in a corresponding drop in emissions. Likewise, the switch to a new primer also resulted in less emissions.

The highest monthly emissions of VOCs for booth 1 was 270.6 pounds. Booth 2 had 527 pounds. Booth 3 had 716.1 pounds. These levels are below the permitted monthly limit of 2,000 pounds per month per booth.

VOC emissions on a 12-month rolling time period were 3.2 tpy for booth 1. Booth 2 had 3.88 tpy while 6.28 tpy were emitted from booth 3. These levels are below the permitted monthly limit of 10.0 tpy.

The highest VOC emissions from all metal parts coating lines are based on a 12-month rolling time period. The highest emission was 16.97 tpy. This level was below the limit of 30.0 tpy.

The last emissions of concern involve facility HAPs on a 12-month rolling time frame. Three individual HAPs rise to the top consisting of ethylbenzene, xylene, and toluene. The highest amount of ethylbenzene was 0.1915 tpy. Xylenes highest level was 0.8115 tpy. Lastly, there were 0.0546 tpy of toluene emitted. The individual HAP emissions are below the limit of 8.9 tpy. The highest amount of aggregated HAPs was 1.104 tpy on a 12 month rolling time period. This level was below the limit of 22.5 tpy.

The remaining operations consist of cutting, welding, grinding, and shaping metal as needed to manufacture parts used to assemble products. Some equipment repair is also performed. The operations appear to meet one or more of the AQD exemptions found under Rule 285 (i), 285 (l) (i), and 285 (l)(vi).

A new building was constructed. It is located to ESE of the coating area. It is primarily used to store steel. There are robotic welding stations in the SE corner of the building. Emissions are routed to a bag house outside the building and the air returned inside the building. A laser cutting operation is located inside the north end of the building. The emissions are captured in a baghouse next to the unit with the air being exhausted in the building. Bags for the dust collectors are reportedly checked weekly. AQD exemptions found under Rule 285 (i) and 285 (l) (vi) seem to apply.

Appropriate records appear to be maintained and were reviewed on site. Based on the records reviewed and operations seen, the facility appears to be in compliance.

NAME



DATE

9-22-24

SUPERVISOR

