

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

U19161220650021

FACILITY: BNM Trailers		SRN / ID: U191612206
LOCATION: 7577 N Hollister Rd, Elsie		DISTRICT: Lansing
CITY: Elsie		COUNTY: CLINTON
CONTACT: Bill and/or Scott Jones , Owner		ACTIVITY DATE: 07/22/2019
STAFF: Julie Brunner	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Compliance inspection of BNM Trailers Sales, Inc.		
RESOLVED COMPLAINTS:		

On July 22, 2019, I conducted an unannounced, scheduled inspection of BNM Trailer Sales, Inc. (U191612206) in Elsie. Jill Coulter (MMD) accompanied me and conducted a waste inspection. The last inspection of BNM Trailer Sales, Inc. was on September 13, 2018 as a follow-up to a complaint investigation.

Contacts:

Mr. Bill Jones, Owner, 989-862-5252, bj4664@yahoo.com

Facility Description and Regulatory Overview:

BNM Trailer Sales, Inc. manufactures quad, covered, utility/construction trailers. Operations include sand blasting, welding, and painting to manufacture the trailers. There are 15 employees, and the hours of operation are from 7:30 am to 5:00 pm Monday through Friday, and 9:00 am to noon on Saturday. The manufacturing is done in two buildings that are 60' x 24' each. They are currently making 8 to 10 trailers per day. They have been in business at this location for approximately 30 years, and added sand blasting to the business about 10 years ago.

The facility is located just north of downtown Elsie in a commercial/rural area. Commercial businesses are located to the north, east and south. An empty property to the south was the location of a refinery. Elsie wastewater treatment ponds are located to the west.

BNM is a minor source of any regulated air contaminants including hazardous air pollutants (HAPs) and not subject to the Title V Renewable Operating Permit (ROP) program.

The facility has a number of exempt processes.

Michigan Air Emissions Reporting System (MAERS):

The facility is not required to report emission information to MAERS.

Complaint History:

Complaints of fall out and fugitive dust due mainly to the operation of the sand blasting process started in November of 2016. Complaint investigations of BNM were conducted on October 3rd and 25th, and August 24, 2018. A follow-up complaint investigation (inspection) was conducted on September 13, 2018. BNM has received two (2) violation notices (VN) for the sand blasting process. One VN was on October 6, 2017 for Rules 201 and 370, and the other on December 15, 2017. The second VN was for Rule 901, and the VN response was to have a new sand blasting process installed and operating by May 1, 2018. The new sand blasting process was never installed, but a new control system was added to the existing sand blasting process and upgrades to the process made. All upgrades were complete and the system was in operation on November 5, 2018. Since the installation of the control, the only complaint that has been received was on June 12, 2019 which corresponds to a malfunction event. Complaints due to washing of trailers outside on the pad with an acid containing material have been addressed because BNM has stopped washing trailers.

Inspection:

Arrived: 10:15 AM

Departed: 11:22 AM

Weather: 67°F, wind NW 7 mph, UV Index 4

No visible emissions were observed from any of the facility exhaust stacks upon arrival. No odors were identified surrounding the facility.

A pre-inspection meeting was conducted with Mr. Bill Jones (owner). I gave a brief overview of the inspection process; the purpose of my visit and the status of the facility operations were discussed. The plant was operating during the inspection.

Manufacturing operations are located in two building of metal, pole barn construction. One building has the sand blasting process and generally assembly, and the other building has construction of the metal trailers and the paint operation. A third "new" building of metal, pole barn construction is used for storage of materials.

We walked around the building that houses the sand blasting operation for cleaning trailers prior to painting. The sand reclaim unit that feeds the sand blaster, and the associated fabric filter duct collector sit in a new fully enclosed shed. The outside access door to the sand reclaim system was competent with no dust around the edges or at the bottom. No dust appeared to be escaping at building seams or around doors, and previous leaks and holes had been sealed.

Two Grand Northern Products dust collection modules (each 8,960 scfm) are mounted into the north wall of the sand blasting room. The dust collection units remove dust with up to 99.9% efficiency at 0.5 micron particulate size. The units were installed venting the clean exhaust gases back into the sand blasting room. Now, exhaust vents to the ambient air are being installed vertically out the top of the units. One unit already has the external exhaust vent installed. The units are equipped with pressure gauges to make sure the unit is operating properly and the drawers in the units need to be cleaned out regularly according to manufacturer's recommendations. The sand blasting operation will still be considered exempt but will now be exempt per Rule 285(2)(l)(vi)(C) due to external exhaust.

On June 12, 2019, the filter plugged inside and they opened the back door which resulted in an amount of dust coming out the back door of the sand blasting room. This event lead to the complaint that was logged on this day.

With the installation of dust collection on the sand blasting room, AQD staff completed a potential to emit (PTE) of particulates (PM/PM10/PM2.5) from the process. The amount of process air that will be handled by the dust collectors is a total of 17,920 scfm. Plus, the small baghouse on the sand blaster/reclaim unit is estimated to be about 600 scfm. Total air flow through the sand blasting process is 18,520 scfm. Particulate emissions from the control systems are estimated to be no greater than 0.01 lb/1000 lb of exhaust gases. The PTE is calculated as follows:

$$(0.01 \text{ lb} / 1000 \text{ lb}) \times (18,520 \text{ ft}^3 / \text{min}) \times (0.075 \text{ lb} / \text{ft}^3) \times (60 \text{ min} / \text{hr}) = 0.87 \text{ lb/hr of PM/PM10/PM2.5}$$

$$\text{PTE} = (0.87 \text{ lb} / \text{hr}) \times (8760 \text{ hr} / \text{year}) \times (\text{ton} / 2000 \text{ lb}) = 3.65 \text{ ton per year (tpy) of PM/PM10/PM2.5}$$

At worse-case, 3.65 tpy of PM/PM10/PM2.5 is estimated to be emitted which is below significant for fine particulate.

We also inspected the paint room. Trailer racks and parts are sprayed with solvent-based paint coatings. Coating colors sprayed are black and red. The trailers are primed using a grey primer. Clean-up solvent is mainly methyl ethyl ketone. There are fabric filters in the intake and exhaust ventilation for the room. Fabric filters are changed every other day. A vertical exhaust stack vents the paint room. The stack had been covered in black paint indicating bleed through and some cleaning had been attempted. Because the cleaned area on the stack was staying clean, BNM was

estimating that the filter changes were done frequently enough. A gun cleaner (Model 1077 Paint Spray Gun and Equipment Parts Washer) serviced by Safety-Kleen was located in the corner of the paint room. It had a lid when installed but the lid was gone. The gun cleaner/parts washer meets the requirements for exemption Rule 281(2)(h). The gun cleaner/parts washer should have a lid and it should remain closed when not in use. There was no standing liquid/solvent in the unit at the time of inspection because liquids drain out the bottom of the unit into a 55-gallon drum. The corner bench area with the gun cleaner and surrounded by drums was messy and coated in paint. The paint handling and solvent handling will be addressed by Jill. The painting room is operated as exempt per R 336.1287(2)(c). Paint usage is tracked using invoices. Invoices for January and June were reviewed and are attached. Less than 200 gallons per month is used meeting the limit to operate as exempt per Rule 287(2)(c). According to AQD's rough estimate, less than 6 tpy of volatile organic compounds (VOCs) are emitted. The paints do have some HAPs as they are solvent-based.

Welding operations located in the same building as the paint room are exempt per Rule 285(2)(i).

Summary:

The facility appeared to be in compliance with all applicable air rules and regulations. Jill is going to send a compliance letter outlining waste issues identified and actions that need to be implemented by BNM for the painting process.



Image 1(3) : Dust collectors on the sand blasting process.

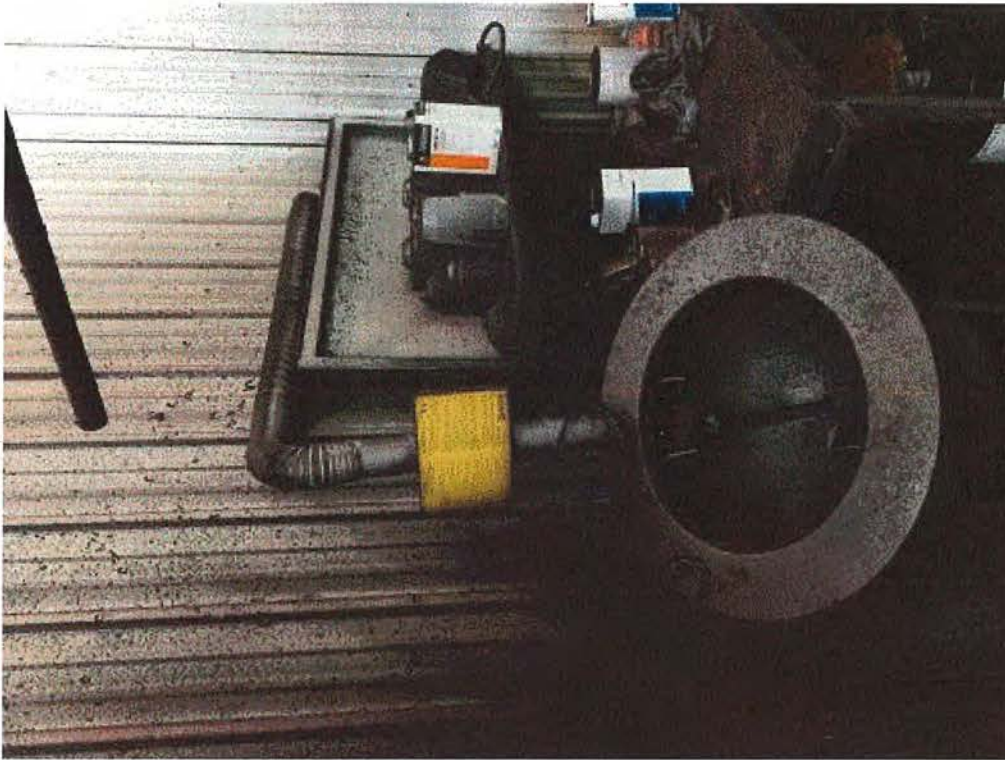


Image 2(1038) : Safety-Kleen parts washer

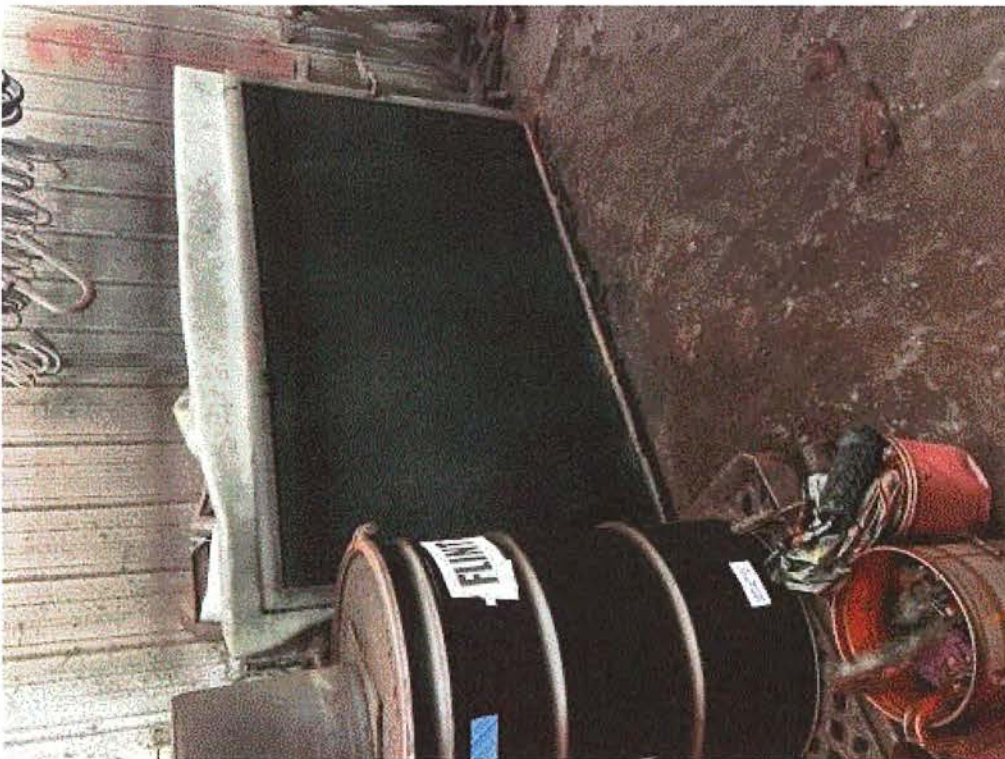


Image 3(1036) : Fabric filter on paint room exhaust.

NAME Julie L. Brown

DATE 8/2/19 SUPERVISOR B. M.

