

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

P103670793

<b>FACILITY:</b> BPV Environmental LLC	<b>SRN / ID:</b> P1036
<b>LOCATION:</b> 511 76th Street SW, BYRON CENTER	<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> BYRON CENTER	<b>COUNTY:</b> KENT
<b>CONTACT:</b> Jacob Draaisma , Plant Manager	<b>ACTIVITY DATE:</b> 02/07/2024
<b>STAFF:</b> April Lazzaro	<b>COMPLIANCE STATUS:</b> Non Compliance
<b>SUBJECT:</b> Unannounced, self-initiated inspection.	<b>SOURCE CLASS:</b> MINOR
<b>RESOLVED COMPLAINTS:</b>	

Air Quality Division (AQD) staff, April Lazzaro and Laura Martin conducted an unannounced, self-initiated inspection of BVP Environmental, located at 511 76<sup>th</sup> Street SW, Byron Center, MI 49315. Upon arrival at the facility, AQD staff observed paper in the parking lot and truck loading bays, however no odors or visible emissions were noted at that time. We met with Kevin Arnold, General Manager and Jacob Draaisma, Plant Manager.

### FACILITY DESCRIPTION

BPV Environmental is a scrap paper and cardboard recycling and processing facility. Scrap paper and cardboard is collected from various sources and processed on one of five (5) processing and pelletizing lines currently installed. The processes at this facility generate pet and lawncare products made from recycled paper. Four lines are currently operational, and the fifth line has been installed and is in pre-production testing and will be operational soon. During the last inspection, the company was operating lines 1-4, now they are operating lines 1, 2, 4, 5 and 6. Line 3 was replaced by line 5 and line 6 is in pre-production testing. It is noted that some changes to the particulate capture and control systems have been made to the newer lines at installation, and work continues in that area to improve the existing lines. A current facility schematic was provided via email following the inspection.

### COMPLIANCE EVALUATION

Paper is received at one of the loading docks via freight truck and unloaded and staged inside the building. This area contained both baled and loose paper products which are sifted and sorted by a skid-steer. Each of the five lines follows the same basic process flow. The bales and loose paper are transferred to a bale buster for breaking up or loosening the bundles. The loosened paper is then conveyed to a sorting area where metal items are removed by magnets and the paper is further sorted by employees. The sorted paper then goes through a coarse shredder and then is refined further by processing in additional shredders. The dry material handling and shredding processes are vented through cyclones and baghouses and vented to the ambient air. The shredded material is then ducted to a tank for storage, where water is added. Once this is in a form of slurry, it is sent to a pellet mill where additional water is added and the pellets are formed. The pellets exit each pellet mill and are sent to a natural gas fired drier and the emissions from the pellet drying process are vented externally through a stack equipped with a cyclone. Some of the lines are equipped with more than one pellet mill, however they all only have one dryer per line. For some of the products, additional items are added to the materials. These things include surfactants, scents, seeds, fertilizer, and odor neutralization

products. These are added as either a powder or liquid at different stages of the process.

Each line operates in a roughly west to east orientation, and the baghouses are located on the east wall of the facility, and they exhaust outward horizontally or downward with a goosenecked stack along the length of the processing area.

The following baghouses were observed, and are identified by the line it services and the number labeled on each:

<b>Line 1:</b>	<b>Pressure drop reading</b>
<b>Unit 001</b>	<b>4.5" water column (w.c)</b>
<b>Unit 102</b>	<b>0.8" w.c</b>
<b>Unit 101</b>	<b>Maxed at 5"w.c , this unit was plugged and malfunctioning</b>

<b>Line 2:</b>	<b>Pressure drop reading</b>
<b>Unit 200</b>	<b>1.6" w.c (emitting particulate into ambient air and to the ground)</b>
<b>Unit 300</b>	<b>2.0" w.c</b>

<b>Line 4:</b>	<b>Pressure drop reading</b>
<b>Unit 408</b>	<b>1.8" w.c</b>
<b>Unit 409</b>	<b>4.2" w.c</b>

<b>Line 5:</b>	<b>Pressure drop reading</b>
<b>Unit 517</b>	<b>2.9" w.c</b>

Unit 510	10" w.c this unit was plugged and malfunctioning
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Line 6: (not yet operating)	Pressure drop reading
Unit 610	NA
Unit 617	NA
Unit 699	NA

There were baghouses that were plugged and malfunctioning as indicated above. Both had been unplugged by hand earlier and there were large piles of fine particulate paper accumulated on the floor beneath the units. At one point, we observed an employee using a metal shovel to scoop up the material and place it into a wheelbarrow to take back to the beginning of the process to be reincorporated into the process. Operating a process that generates large quantities of particulate matter with a baghouse that is malfunctioning is considered a violation of Rule 910 for failure to properly operate a control device. A Violation Notice will be issued.

We requested access to the exterior of the building on the eastern side that is adjacent to highway U.S. 131. We observed that Line 2 baghouse 200 was emitting paper dust outside, which was evident by the particles in the exhaust air and the accumulation of paper dust on the ground below the stack. (see photos below) This is a violation of Rule 910 and Rule 370 for failure to properly operate a control device and for failure to collect and properly dispose of an air contaminant. A Violation Notice will be issued. We also observed an unnamed stormwater collection ditch that was impacted by the paper particles and had what appeared to be accumulation of material in it.

A review of the 2019 inspection report shows that there were possible permit exemptions identified for individual pieces of equipment used at the facility. A review of those exemptions found that the company's assessment was not properly conducted or applied to the equipment at BPV Environmental. When determining whether a process is exempt, one must follow the guidance prepared by the AQD and first determine what the emission unit consists of at the time of installation, and current operations. The emission units at this facility appear to each be one of the five paper processing and pelletizing lines, which were not previously assessed as a whole. That assessment also did not include the particulate emissions from the pelletized paper dryer, but only looked at the natural gas burner. Actual and potential emissions from each emission unit are currently unknown. As such, a Potential to Emit demonstration will be requested. BPV Environmental should ensure that all additives that are used in the manufacture of the products are included in the analysis.

At this time, it is unclear whether any exemption applies to these emission units as described above. As such, the AQD will formally request an exemption analysis and required documentation from the company pursuant to Rule 278 to properly identify each emission unit and determine whether a permit is necessary for each line. BPV Environmental should ensure that all additives that are used in the manufacture of the products are included in the analysis.

Additionally, since there have been operational failures of the baghouses observed during both the 2019 and 2024 inspections, the AQD will request a formal Malfunction Abatement and Preventative Maintenance Plan for the lines and associated baghouses.

As we walked through the facility, AQD staff observed excessive dust in the air, as well as safety concerns for handling the fine paper particulate from an explosive dust perspective. Most employees were using paper medical masks to filter the air they were breathing because the dust was prevalent throughout the facility. As such, BPV Environmental was provided contact information for the Michigan Occupational Safety and Health Administration (MIOSHA) Consultation Education and Training (CET) Division. They were also provided contact information for the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Environmental Services Division staff, and were provided the link to the EGLE Consultant Directory for assistance in assessing the permitting needs of the paper processing and pelletizing emission units.

## **SUMMARY**

BPV Environmental was in non-compliance at the time of the inspection. A Violation Notice will be issued that will include the additional information requests identified above.



**Image 1(Line 2 emissions)** : Paper particulate emissions from a line 2 baghouse. View image one turn clockwise.



**Image 2(Line 2 emissions)** : Paper particulate emissions migrating down into water. View image one turn clockwise.



**Image 3(Baghouse exhausts)** : Baghouse exhausts and air intakes for paper processing and pelletizing lines.

NAME April Lazzaro

DATE 02/21/2024

SUPERVISOR HH