

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

N601246836

FACILITY: BAY VALLEY FOODS, LLC		SRN / ID: N6012
LOCATION: 652 W ELM ST, WAYLAND		DISTRICT: Kalamazoo
CITY: WAYLAND		COUNTY: ALLEGAN
CONTACT: Jeff Frey , Plant Manager		ACTIVITY DATE: 10/19/2018
STAFF: Cody Yazzie	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Scheduled Inspection.		
RESOLVED COMPLAINTS:		

On October 19, 2018 Air Quality Division (AQD) staff (Cody Yazzie) arrived at 652 West Elm Street, Wayland, Michigan at 10:30 AM to conduct an unannounced air quality inspection of Bay Valley Foods, LLC (hereafter BVF). Staff made initial contact with the office receptionist and provided her with a business card and stated the purpose of the visit. Jeff Frey, BVF, Plant Manager, arrived shortly thereafter and took staff to his office for further discussions.

BVF makes non-dairy powdered coffee creamers. The facility packages the creamer in containers in the two packaging lines. BVF also fills large sacks that are used to sell in bulk. The process starts with the facility mixing the liquid and solid ingredients before entering the dryers. Dryer 2 is larger and permitted under Permit to Install No. 450-96. The Dryers have similar process designs with primary and secondary cyclones that lead to a baghouse. After the liquid slurry is spray dried in the dryers the powdered product is transported by the vibrofluidizer for packaging.

BVF was last inspected by the AQD on March 23, 2011 and was determined to be in compliance at that time with PTI No. 450-96. Staff asked, and Mr. Frey stated that the facility does not have any emergency generators.

Mr. Frey gave staff a tour of the facility. Required personal protective equipment are a hard hat, safety glasses, hear protection, and steel toe boots. Staff observations and review of records provided during and following the inspection are summarized below:

### **Dryer 2:**

This is a liquid spray dryer that is fueled by natural gas. The dryer is larger than Dryer 1 having a maximum design heat input capacity of 5.91 MMBTU/hr. This dryer was installed in 1996. Dryer 2 is permitted under PTI No. 450-96. In accordance with PTI No. 450-96 this dryer has two primary cyclones (in parallel) followed in series by two secondary cyclones (in parallel) followed in series by the baghouse. The cyclones and baghouses are designed to capture product that is reusable in the process. Waste that is not reusable captured by the cyclones and baghouse are used as animal feed.

This dryer was operating during the inspection. There were no visible emissions observed during the inspection. BVF conducts routine Preventative Maintenance checks on both baghouses and dryers. A detailed maintenance list was provided for both Dryer 1 and Dryer 2 systems that took place on 8/27/18 and 7/27/18 respectively.

Special condition 13 of PTI No. 450-96 has emission limits that compliance can only be determined from a stack test. The facility has not been required to preform a test to this date.

**Dryer 1:**

This dryer is grandfathered from needing a permit. The dryer was installed in 1956, has an estimated 3.0 MMBTU/hour, and is fueled by natural gas only. This dryer has is similar in design as Dryer 2 except that Dryer one is controlled by a primary cyclone followed in series by a secondary cyclone followed in series by a baghouse. Dryer 1 was not in operation during the inspection.

The facility has had two recent upgrades to the dryer. In 2010 the dryer had and upgraded VFB and Kice deluge system. This upgrade is a valving safety system that douses the dryer with water in case of overheating. BVF estimated the project cost for the upgraded deluge system to be \$163,367. BVF estimated a new dryer to replace to the current system to be \$7,000,000. The deluge system project is estimated to be 2% of the capital cost of a new system which does not qualify the project for reconstruction.

BVF upgraded the dryer's computer processor in 2000. The facility estimated the project cost for the processor to be \$7,1000. Comparing this to the \$7,000,000 to replace the current system shows that the project does not qualify as reconstruction.

**Packaging Line:**

The facility has two packaging lines. These packaging lines include cold adhesives that are applied to the rim of the container to attach a seal. Once the seal is applied to the container the facility shrink wraps the label. This is done by using the heat to shrink the labels on the containers. After the label is applied a "best by" date is coated on to the container. The date is applied by an inkjet printer.

BVF uses two different types of adhesive glues. The facility was able to provide purchase records that showed that the Henkel Optal estimated usage was 10,000 lbs per year. Using the SDS provide this calculated to 1,110 gallons a year. Assuming the facility uses the same amount of adhesives each month the facility would use 92.5 gallons per month. The estimated usage for the HB Fuller adhesive was 12,000 lbs per year. Using the same assumptions as the Henkel Optal adhesive produces an estimated 111 gallons per month usage for the HB Fuller adhesive. It is estimated that both adhesive lines would comply with exemption Rule 287(2)(c). Staff did state to Mr. Frey that usage records should be kept because a fluxuation in the amount of coating from month to month could cause the facility to go over the 200 gallon a month limit that is part of Rule 287(2)(c). Mr. Frey stated in an e-mail that the facility would keep track of the monthly usage records.

BVF estimated that it uses 70 pounds per year based on purchase records that were provided to Staff. Using the SDS and estimated usage it was calculated that the facility uses around 10 gallons per year of the Ink. These are well below the limits of the 200 gallons per month. The facility appears to be in compliance with Rule 287(2)(c) for their printing line.

**Cold Cleaner:**

The facility has one cold cleaner in the maintenance area that is serviced by Safety Kleen. The cold cleaner is the sink over drum style with the solvent daring into a reservoir below the work pan. Staff provided BVF with a sticker to post on the lid of the unit that included proper usage directions. The solvent that is used is the Safety-Kleen Premium Solvent. Staff was provided with the SDS.

**Boilers:**

BVF has two boilers natural gas boilers. The Johnston Boiler has a maximum design heat input capacity of 4.185 MMBTU/hr that was installed in 1993. The Cleaver Brooks Boiler max

heat input capacity is 6.227 MMBTU/hr and installed in 1978. Both boilers appear to meet exemption Rule 282(2)(b)(i). The boilers also appear to not be subject to NSPS Dc because the maximum design heat input capacity is not greater than 10 MMBTU/hr.

**MAERS:**

The facility has been reporting emissions to the Michigan Air Emissions Reporting System (MAERS). The previous inspector had communications with the facility about them not having to report because their emissions are below reporting thresholds. Since 2013 the facility has had emissions that are well below the MAERS reporting thresholds. The facility is a true minor source that does not appear to be subject to any NSPS's. BVF does not need to report to MAERS unless actual emissions are over the thresholds. Staff noted to remove BVF from the reporting list. Staff did tell Mr. Frey that if the facility's emissions were to go over the reporting thresholds BVF would be subject to reporting again.

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with PTI No. 450-96. Staff stated to Mr. Frey that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 12:30 PM.-CJY

NAME Cody Yang

DATE 11/2/18

SUPERVISOR MA 11/5/2018