

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

B878635878

FACILITY: Sekisui Voltek LLC.		SRN / ID: B8786
LOCATION: 17 ALLEN AVE., COLDWATER		DISTRICT: Kalamazoo
CITY: COLDWATER		COUNTY: BRANCH
CONTACT: Don Ostrander , Maintenance Dept. Manager		ACTIVITY DATE: 08/02/2016
STAFF: Dale Turton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT:		
RESOLVED COMPLAINTS:		

An unannounced inspection was conducted by Amanda Chapel and me. Don Ostrander, the Maintenance Department Manager, is in charge of environmental issues. Don was able to conduct the tour and produce records for us.

The plant produces plastic foam sheet material by mixing raw polyolefin and other ingredients, extruding it into a sheet, crosslinking the molecular structure, and then expanding. The foam material is produced in a variety of thicknesses and colors for a variety of customers in many industries.

The facility is a major source permitted under ROP #MI-ROP-B8786-2014a.

During the inspection, Staff observed the following processes.

FGPARTICULATE

A flexible group that consists of five plastic mills (EUMILL01-05) and ten storage silos (EUSILO01-10).

Plastic resin is mostly unloaded from railcars pneumatically to the storage silos. There are 8 silos on the south side of the plant and 2 on the north side. Visible emissions checks are performed during loading operations and the results are recorded on a sheet located near the silo area. The silos do not have bin vent filters since the material is in the pellet form and is not dusty. Staff was shown the VE recording sheet. Records are also being kept of the maintenance being performed according to Appendix 3 of the ROP.

The resin pellets are transferred from the silos to the mills. The mills reduce the size to specification and then it is sent to storage bins located inside the plant. The milling machines are equipped with collection cyclones and fabric socks for final dust control. There is a fabric sock (bag) located on each machine and they are discharged inside the room.

The ROP requires either annual or semi-annual preventative maintenance on the different parts of the grinding mills. Records are being kept of the required maintenance work.

EXTRUDING

After milling, the material is sent to be extruded. The powdered resins and other additives are fed into a hopper and fed through screws to mix the recipe according to the customer's specification. The mixture is heated and extruded into a flat flexible plastic sheet and taken up on spindle rolls. The extrusion process is considered exempted from permitting under Rule 286(a). They don't report any emissions in MAERS for this process.

These wound sheets are then moved to one of the two cross link machines to apply a high voltage to change the structure to get it ready for the thermal expansion ovens.

FGOVENS

There are 11 ovens (EUOVEN01-11) used to expand the extruded plastic into foam. Oven #6 has a preheater (EU-Oven6Preheat) that is exhausted out a separate stack.

The sheets are fed onto the line at a set speed and introduced into a multi-zoned oven. The ovens have various temperature zones to maintain quality and consistency during the foaming process. The exhaust gas from each

of the ovens is routed to a catalytic oxidizer. Condition III.2 of the ROP requires a minimum temperature of 600° F is to be maintained at the inlet of the catalyst bed of the associated catalytic oxidizer. The lowest set point for the temperature for any of the catalytic oxidizers is around 650° F, but it is often higher. An alarm system has been installed to alert operators if the oxidizer drops below 650 F.

A small portion of the exit gas from the oxidizer is exhausted through a stack to the atmosphere. A larger percentage is rerouted back to the oven to reuse the heat. The foam sheet exits the oven in the expanded form that is thicker, wider, and longer than the feed material.

All of the oven line and catalytic oxidizer parameters are recorded electronically and can be retrieved from the computer at a later time. Emissions are calculated based on emission factors determined during previous stack tests.

The stack heights and diameters appeared to be in compliance with the permit.

There were no VE's observed from any of the oven stacks.

FGOVEN12

This group represents a line that contains two emission units with separate exhaust stacks. This line is a horizontal foam expansion oven. There is a separate natural gas fired burner used to clean material off the belt which is exhausted separate from the oven.

This oven does not have a catalytic oxidizer installed since did not need one to meet the VOC emission limits and was not projected to have significant amounts of particulates. The line is capable of handling thicker sheets and can make a wider sheet.

The NOx, PM, and SO2 emissions are based totally on the natural gas usage. The VOC and CO are based on a combination of the natural gas usage and on the azodicarbonamide (AZO) material usage. Records are being kept of the AZO usage and the natural gas usage. A stack test in 2014 showed compliance with the ammonia limit.

There were no VE's observed from the stacks during the inspection.

FGCOLDCLEANERS

There were two Safety-Kleen cold cleaners located in the maintenance department. One is a sink over drum style and one is an immersion style. Both use mineral spirits. The operating procedures were posted and both lids were closed since they were not being used at the time. These units are in compliance with the permit conditions and Rule 707.

FGRULE290

EUCLEANINGOVEN – This is the Xaloy cleaning furnace used to remove residue from tooling parts. Temperatures are being recorded during use of this equipment. Run hours are also recorded and kept to use with the emission factors to calculate the VOC and PM emissions.

NAME Dale Turner

DATE 8/8/2016 SUPERVISOR MA 8/8/2016