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

N077043545

FACILITY: BASF Corporation		**SRN / ID:** N0770
LOCATION: 23930 Concord Ave, MATTAWAN		**DISTRICT:** Kalamazoo
CITY: MATTAWAN		**COUNTY:** VAN BUREN
CONTACT: Douglas Teugh , QC Supervisor of Operations		**ACTIVITY DATE:** 03/02/2018
STAFF: Amanda Chapel	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT:		
RESOLVED COMPLAINTS:		

On March 2, 2018 Amanda Chapel (staff) conducted an unannounced inspection of BASF (facility) located in Mattawan, Van Buren County. The purpose of this inspection was to determine compliance with all applicable state and federal air regulations. The following will summarize facility operations and compliance status.

I arrived at the facility at 10:00 am. There were no visible emissions or odors detectable from the road in front of the facility. I parked and entered the main entrance. There was no secretary but there was a phone number listed to call. I first tried calling Dwight Taylor then I called Doug Teugh the Quality Control Supervisor. He answered his phone and I told him I was from the DEQ air quality division here to do an unannounced air quality inspection. He let me in, I gave him a card and presented my credentials, and we walked up the stairs to a conference room. He explained that Mr. Taylor was out sick, but Mr. Teugh did call him to tell him that I was at the facility to do an inspection.

The last inspection of the facility was on February 2, 2011 and the facility was in compliance. Based on the last inspectors notes in the inspection report, the facility determined that it could operate entirely under the Rule 290 exemption and they voided their permit on June 24, 2016. BASF is a chemical manufacturer making polyurethane glue, adhesives, concrete coatings, and other similar products. The facility has about 36 employees. They operate in three shifts 24 hours a day, five days a week. They are subject to MACT VVVVVV for chemical manufacturers. They were subject to MACT CCCCCCC for Paints and Allied Products but notified the department on May 6, 2013 that they had worked with their supplier to reformulate the raw material to below the 0.1% threshold concentration and are no longer subject. Mr. Teugh ran me through a small safety training before I could walk around the facility. First, we reviewed the equipment on site and the records and this was followed by the facility tour. All of the below listed equipment was viewed on the facility tour.

Basement:
The basement contains the EUWBLine which was formerly covered by the PTI. Tanks 7A and 7B are still present but not used, Mixer 5 and 7, and a packaging line. They have also installed a one-part polyurethane adhesive rotary packaging line in 2015. The Acrylics room has mixer A which only runs one type of acrylic. Mixer B and C are used to make UCrete. Mixer X was never used and has been removed from the facility. Mixer Y and Z are still in the area but unused. There are 5 tanks along the east wall. Three contain castor oil, one has sanitizer 261A, and one is empty. Three were removed from the last inspection. The same 10 tanks with the same liquid as the last inspection are along the south wall.

First Floor:
The first floor has a packaging area containing a linear premium pints packaging machine and a rotary Pro 2000 pint packing machine. Neither of these were running during the inspection. Mixer 5 is across from this packaging area. It was also not in use during the inspection. Mr. Teugh opened the lid to allow me to look inside the mixer. There is a very small cold cleaner located in the quality control lab. The lid was closed, and the rules were posted. Mr. Teugh indicated that the cold cleaners contain mineral spirits. This is exempt under Rule 281(2)(h).

The PL Mix Room which was under the permit as EUPLMIXROOM, has undergone some equipment changes. Hexane is no longer used in this area. Toluene, Xylene, and IPA are stored in small totes on the outside of the walls. Tanks 1 and 2 have been removed. Mixers 2 and 3 have also been removed. Mixer 1 is still used in this area as well as Mixer 4. Mixer 6B was moved from the Myers mix room into PL Mix Room and is now called Mixer 6. There is also MOPA Blend and MDI stored in small tanks in this area. The PL Packaging area is outside of the PL Mix room. It is a very small packaging line which requires employees to hand fill the containers. It was not in use during the inspection. The Kure N Seal is no

longer made at the facility.

EUMyersRoom contained both the prepolymer room and the mix room. The prepolymer room contains tanks which store Lupranate, Pluracol 220 Polyol, and Pre-polymer. The mix room has also experienced equipment changes from the last inspection. Mixer 6A has been removed from the facility. Mixer 6B was moved in the PL Mix room as noted above. The four carbon scrubbers or drums that were connected to this mixer have been removed. This room now contains Mixer FC, FD, FE, and FF. Mixer G is also used in this room but it is small and portable. It was not plugged in or in the room during this inspection. Mixer FE (also referred to as Mixer E) is the only mixer in which Xylene is used. The FC mixer is packaged in the basement. The baghouse which is attached to this room vents horizontally. We walked outside to view the baghouse. No leaks were seen and the drums appeared to have good suction. These are inspected frequently to ensure they are running.

The room that used to be the acrylic coatings mix room is now the UCrete mix room. The tops of Mixer A, B, and C come up through the floor. Mixer A is still used for acrylic coatings and mixer B and C are used for UCrete. The baghouse for this room is still installed but it is not running since no powders are used anymore in this area. Mixer S and T are also still in this room.

The underground storage tanks are located outside to the east of the facility. There are three tanks split down the middle into 6 separate storage areas. They are currently storing xylene, conosol, naptha light aromatic, and mineral spirits.

The boiler is used for heating. It was marked as 5,250,000 Btu/hr or 5.25 MMBtu/hr. This is exempt under Rule 282(2)(b)(i).

Second Floor:
The premium quarts packaging machine was moved from the 1st floor to the 2nd floor in 2010. There is also a RAM hydraulics machine, vacuum pumps, and a chiller in this area. A new chiller was installed after 2011 and the old one is still installed but only used as backup. The vacuum pumps are attached to Mixers FD and FF in the Myers Mix room. All three carbon drums that used to be installed here have been removed.

The maintenance area has a cold cleaner that was not in use during the inspection. The rules were posted but there were objects being stored on top of the cleaner, making it appear that it has not been used in quite some time.

Third Floor:
This used to be the UCrete area. The Part 1 mixed and packaged UCrete area as been decommissioned. The equipment is still there but it is idle. The Part 2 Ucrete packaging line is still there and operating. It was not operating at the time of the inspection.

During the records review, Mr. Taylor joined us. We reviewed the requirements for MACT VVVVVV as well at Rule 290 records.

MACT VVVVVV:
According to records, the DEQ received a notice of compliance status report on February 18, 2014. They are subject to the MACT due to use of Manganese, a metal HAP with a threshold of less than 400 lbs/year. The facility completes the required AVO procedure which is documented on each batch sheet. Mixer E is the mixer which these manganese-containing chemicals, manganese trioxide and titanium dioxide, are used. The Accu-tinter is no longer at the facility. Records of either the batches or monthly operating hours were requested for the product which contains these chemicals. In an email received in on Friday March 2, these were provided. The product using these chemicals is called Good Bye Crack. One batch was run in March and October 2017 and pounds per month of Manganese Trioxide was calculated. There were no malfunctions of the equipment and therefore no notification to the DEQ was required. A site-specific monitoring plan for the facility was also included in the email as well as a compliance check sheet. These are included with the inspection report. The facility appears to be in compliance with MACT VVVVVV.

Rule 290:
The facility uses a program called SAP to track all the chemicals, usages, and emissions for the Rule 290 exemption. There is a process order for everything made at the facility. This details what chemicals are

in each batch and how much to put of each. This also tracks what chemicals are on site and how much. From this tracking, everything is put into a sheet and each of the emissions are calculated for each individual chemical. Calculations were developed from stack tests and volume and potential of emission from each chemical.

The facility has each 290 unit separated into emission units. These 290 groupings are EUPLLINE, EUMYERS, EUWBLINE, EUTANKS, EUMYERS290, EU1stFLRPKG, EU2ndFLQTPKG, EUUCRETE, EUWaterbased290, EUPLPKG, BLADEandPOTWASHING.

An example of the records kept for these units is included with the inspection report. EUTANKS has each stored chemical listed at the top. These chemicals are then broken out into the components separated into VOC, Xylene, and Cumene. From here, the amount of each stored chemical used per month is listed out. The percentage of each component is calculated and the VOC, Xylene, and Cumene are calculated as a total for the tanks.

These chemicals are then listed under the correct 290 group with the allowed emission amount based on the ITSL screening levels next to them. The emissions are summed up for the month and then compared to the allowed emission limit found in the rule. The highest emission of any chemical was VOC from EUPLLINE in May 2017 with an emission level of 158.45. The breakout of what contributed to this VOC number would be available under the EUPLLINE tab. It appears that the company is in compliance with Rule 290.

I thanked Mr. Teugh for the tour and explanation of records and left about 12:20 pm.

NAME Aaron Clark DATE 3/8/18 SUPERVISOR MD 3/9/2018