

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

B240450010

FACILITY: Robert Bosch LLC		SRN / ID: B2404
LOCATION: 3737 Red Arrow Highway		DISTRICT: Kalamazoo
CITY: SAINT JOSEPH		COUNTY: BERRIEN
CONTACT: Mark Walker, Senior Leader of EH&S		ACTIVITY DATE: 08/21/2019
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On August 21, 2019 AQD Staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the Robert Bosch, LLC (facility) in St. Joseph, Berrien County. According to district file information, the facility use to be a major source when it had foundry operations but those operations ended years ago. They are now a true minor source and only have one active PTI (PTI No. 55-05A) on file with the AQD for 5 coolant mist eliminators. The purpose of staff's inspection was to determine compliance with the aforementioned permit and any other state and/or federal regulations that might be applicable. Staff departed the district office at approximately 10:45 a.m.

Staff arrived at the facility at approximately 12:45 p.m. after travel time and having lunch. Staff parked in the visitors parking lot and looked to see if any visible emissions (VEs) could be noted and none were. Staff then proceeded into the reception area of the facility. Once in the reception area, staff introduced them self to a security guard and stated the purpose of the visit. The guard had staff sign in and proceeded to try contacting several people who might be able to assist staff. Ultimately, staff ended up meeting with Mark Walker (Senior Leader of EH&S). Staff introduced them self to Mark and stated the purpose of the visit. Staff then showed Mark the permit and asked if the equipment listed was still on site. Mark looked at the permit and said he wasn't aware that they had one. Staff mentioned that they had one for 5 coolant mist eliminators and basically the only conditions in the permit are that they are installed and operated properly along with taking VE readings. Mark said he was aware of the VE readings and that security does those daily. Mark was then leading staff back to another security area where staff could view these daily VE records when he ran across another employee whom he asked about the mist eliminators (Staff forgot to right down the employees name). The employee looked at the permit and said 4 out of the 5 mist eliminators listed have been removed and only SVMIST_ELIM_4555 still exists. He mentioned that they do have another mist eliminator but that one vents inside the plant. Apparently, about 10 years or so ago Bosch sold off their caliper machining operations and approximately 75% of the equipment went along with it. Mark then led staff to where another security guard office was located and we met with another guard (Matt). Matt showed staff the readings they take daily and staff asked for a copy of it. He was having a hard time getting it to print correctly so Mark gave staff a fairly recent copy of one (See Attached). Staff then asked Mark if they could sit down somewhere so staff could ask some general questions about facility operations prior to taking a tour of the facility. Mark then led staff to a break room where they sat down and the following is a summary of our discussions.

According to Mark, the facility is currently working 2 shifts Monday through Saturday and they employ approximately 130 hourly workers and 45 salaried employees. Their main business revolves around Medium and Heavy Truck Brakes and Braking Systems. They machine cast iron parts and make hydraulic brake boosters. He said that hydraulic brake boosters are 10 times stronger than vacuum brake cylinders that you find on a typical passenger vehicle. He went on to state that the plant mainly consists of CNC lathes and grinding equipment. He also stated that they assemble the brake systems as well. Staff then went on a tour of the facility.

During the tour of the facility staff noted areas broken out for machining, grinding, and assembly. We stopped and checked out the Spool Valve Grinding area which has the mist eliminator that vents inside. The mist that's collected is exhausted to a filter box and the air is vented back inside the plant in that area. The filter box appears to have been manufactured by a company called Aercology. Staff also checked out the mist eliminator No. 4555 that still exists in the permit. After the tour, we proceeded back out into the reception area. Staff thanked Mark for his time and mentioned that he would call him should staff have any additional questions. Staff departed at approximately 1:50 p.m.

The following are the Special Conditions of PTI No. 55-05A and will be followed by staff's comments to them.

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EUMISTELIM	Machining operations controlled by five coolant mist eliminators used to collect mist off. Condensed mist is returned to coolant central system and cleaned gases are vented externally through a separate stack for each mist eliminator.	SVMIST_ELIM_4555 SVMIST_ELIM_6521 SVMIST_ELIM_6572 SVMIST_ELIM_6573 SVMIST_ELIM_4502
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

AQD Comment: Only the No. 4555 mist eliminator is present at the facility. All the others have been removed.

The following conditions apply to: EUMISTELIM

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	PM	Each Stack of the EUMISTELIM	0.010 lbs per 1000 lbs of exhaust gases*	Test Protocol	General Condition No. 13	R 336.1331
1.1b	PM-10 (Total Combined from all Stacks)	EUMISTELIM	2.3 Pounds Per Hour	Test Protocol	General Condition No. 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis.						

AQD Comment: Appears to be in Compliance with the above. The AQD has not requested any testing be done to date.

Equipment

1.2 The permittee shall not operate EUMISTELIM unless the five coolant mist eliminators are installed maintained, and operated in a satisfactory manner. (R 336.1205, R 336.1225, R 336.1331 R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. Only one permitted mist eliminator currently exists. It appears to have been installed, maintained, and staff will assume being operated properly.

Monitoring

1.3 The permittee shall perform a daily check for visible emissions during routine operating conditions. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. The results shall be recorded in the mist eliminators maintenance log. (R 336.1301, R 336.1303)

AQD Comment: Appears to be in Compliance. Security guard personnel conducts the daily VE readings.

Recordkeeping/Reporting/Notification

1.4 The permittee shall keep, in a satisfactory manner, daily records of visible emission observation of EUMISTELIM. At a minimum, records shall include the date, time, name of observer/reader

whether the reader is certified/uncertified, and status of visible emissions. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. Also, the permittee shall make them available by the 15th day of the calendar month, for the previous calendar month. (R 336.1205, R 336.1225, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. Security guard personnel conducts the daily VE readings and records them (See Attached).

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Dimensions or Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.5a	SVMIST_ELIM_4555	48 by 24	27.5	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
1.5b	SVMIST_ELIM_6521	30.0	44.0	
1.5c	SVMIST_ELIM_6572	30.0	44.0	
1.5d	SVMIST_ELIM_6573	30.0	44.0	
1.5e	SVMIST_ELIM_4502	26.8	43.0	
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

AQD Comment: Appears to be in Compliance. As mentioned earlier, only one of the mist eliminators listed in the permit is still present at the facility. The stack dimensions listed for the No. 4555 mist eliminator appear to be accurate.

INSPECTION CONCLUSION: The facility appears to be in Compliance with the terms and conditions of PTI No. 55-05A at the present time. The majority of the equipment at the facility is permit exempt. Staff assumes the original 5 mist eliminators and the one that is still present were originally permitted because they exhausted outside the plant and didn't have a pre-filter system and/or a mechanical pre-cleaner for metal operations.

NAME Matt Dak

DATE 8-22-19

SUPERVISOR RIL 8/26/19

JpP/EMS 104.5.1 s9

Daily Environmental Inspection Form



1. The following must be checked each operating day
2. All blanks must be filled out, any comments use back of form
3. Call responsible department for corrective actions
4. Form is to be forwarded to HSE.
5. E-mails: HSE: Mark Walker
6. E-mails: TEF: Brian Traver

Week beginning date: 8-3-2019

Inspection check	Inspector's Initials	√ = OK or operating; NP = no production (contact HSE if anything unusual is observed)						
		Sa	Su	M	T	W	Th	F
Time (24 hour clock)		1217 Da	1217 Da	1300MS	1330MS	1330MS	1330MS	0830MS
Air Permit If problem, call HSE Mist eliminators Dept 455	< 20% Opacity	✓	✓	✓	✓	✓	✓	✓
NPDES Permit If problem, call HSE #2 and #3 basins for escaping oil sheen or debris	No oil released from basins	✓	✓	✓	✓	✓	✓	✓
Outfall 001 (Creek check)	No oil sheen	✓	✓	✓	✓	✓	✓	✓
Air Stripper Operation Record M-W-F that the system is operating. Call Phillip Environmental if the orange light is flashing	Is it operating?	down Lisa aware	✓	✓	✓	✓	✓	✓
SVE Operation Call Phillips Environmental if the outside red lights are flashing or unit not operating(sound)	Is it operating?	✓	✓	✓	✓	✓	✓	✓

Storm Water Effluent Monitoring

	Sa	Su	M	T	W	Th	F
Analyst Initials	1217 Da	1217 Da	1300MS	1330MS	1330MS	1330MS	0830MS
Weekly effluent temperature (°F)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pit Level Checks: enter ok, or e-mail to HSE & TEF for SWTB, or e-mail HSE for 101 & 32 per the below details	e-mail 7-27-19	e-mail 7-27-19	High FOI	101 High E-mailed HSE	101 High E-mailed HSE	101 High E-mailed HSE	✓
SWTB(Storm Water Treatment Basin) Tank 102 – if full & not raining & no oil sheen, e-mail HSE & TEF to pump it down approx 13 inches below outlet	✓	✓	✓	✓	✓	✓	✓
Pit 101 – if level within 2 feet of the discharge elbow, then e-mail HSE to have one Polar tanker truck come and pump it down to lower level	Walker aware High 101	Walker aware high 101	High Walker aware	High Walker aware	High Walker aware	High Walker aware	✓
Pit 32 – if level within 3 feet of the top, then e-mail HSE to have one Polar tanker truck pump it down to lower level	✓	✓	✓	✓	✓	✓	✓