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

B360764752

FACILITY: Linear Motion, LLC		**SRN / ID:** B3607
LOCATION: 628 N HAMILTON, SAGINAW		**DISTRICT:** Bay City
CITY: SAGINAW		**COUNTY:** SAGINAW
CONTACT: Mary Kay Csire ,		**ACTIVITY DATE:** 09/12/2022
STAFF: Gina McCann	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Inspection of PTI 383-08.		
RESOLVED COMPLAINTS:		

On September 12, 2022, I performed an unannounced inspection of Linear Motion. I met with Mary Kay Csire, Environmental, Health and Safety Administrator and Randy Zimmerman, Operations Manager for Thomson Aerospace and Defense. The purpose of the inspection was to determine compliance with PTIs # 383-08. At the time of the inspection the facility was not in compliance with the active permit.

The facility is located on Hamilton Street in Old Town Saginaw. Through the years the facility had various owners ranging from General Motors Delphi in the late 1970's to General Motors Saginaw Steering Gear Division/Thompson Saginaw Ball Screw in the mid 1980's and most recently called Linear Motion, LLC as of 2008. The company is currently owned by the parent, European company Meggitt and operates under the name Thomson Aerospace and Defense. They manufacture ball screws for civilian and military aerospace as well as munitions for defense. Due to the nature of equipment they manufacture, the facility is an ITAR, International Traffic in Arms Regulations, regulated plant. ITAR regulates the export and import of defense related articles and services. They currently employ 100-120 employees and operate three shifts. The third shift is a skeleton crew.

One active PTI is listed in permit cards for this facility, #383-08. The permit has HAP opt-out limits, though it is unclear that this is a true HAPs opt-out permit.

EUPGBBLASTER

The Pangborn Rotoblast system is used to remove scale from heat treated metal parts. A 1,095 scfm Wheelabrator dust collector is the associated control device. EUPGBBLASTER was taken offline 18-20 months ago and remove in the fourth quarter of 2019.

EUWHLBLASTER

The Wheelabrator Tumblast system is used to remove scale from heat treated parts. The part tumbles through this equipment to "de-bur" the part. A 4,250 scfm Pulsair dust collector is the associated control device. EUWHLBLASTER is restricted from operating unless the associated dust collector is installed, maintained, and operated in a satisfactory manner. Records were requested to verify compliance during the 2020 inspection and were not available. In turn, a malfunction abatement plan (MAP) was requested for this equipment. The approved MAP requires daily pressure drop of the dust collector. During the inspection I viewed logs from January 2021. It appears records were not maintained beyond January 2021. During the inspection the pressure differential was -2.1 "W.C., which was within the required parameters in the MAP. A violation notice was sent on September 20, 2022, for not maintaining records.

EUPLATING

EUPLATING consists of two copper plating lines with phosphating or pickling tanks for surface treatment of metal parts. Each plating line is controlled by a cross-flow scrubber and mist eliminator system. Lines 1 and 2 perform copper plating. Lines 3 and 4 use phosphate and black oxide for rust inhibitors. I asked what happens when the scrubbers are not working, is production able to shift to another line? Randy Zimmerman said they shut the line down. The plating line associated with scrubber 3 and 4 have been down since August 4th, 2022. The scrubbers had maintenance performed, including changing the medium, and the plating vats were empty during the inspection. The plating line associated with scrubbers 1 and 2 were in operation. These scrubbers had been taken down earlier in the year for maintenance.

Special condition (SC) III.1. restricts the facility from operating the plating lines unless a malfunction abatement plan (MAP) is submitted for the packed bed wet scrubber system with mist eliminator. The MAP requires an annual reading of the scrubber liquid flow rate. During the inspection we viewed logs for the liquid flow rate of the scrubbers. There were several times between January and August of 2022 when the liquid flow rate was below the required 42 gallons per minute (gpm). Any one of these times could have been an annual observation. During the inspection the scrubber flows were 46.58 gpm for scrubber 1 and 41.26 gpm for scrubber 2.

SC VI. 2 requires the facility to keep in a satisfactory manner, daily records of a once per day reading of both the pump discharge pressure and visual verification of return water flow to the holding tanks for the packed bed wet scrubber system with mist eliminator. The pump discharge pressure is required to be a minimum of 10 psig per minute for all four pumps. During the inspection Pump 1 associated with scrubber 1 had a discharge pressure of 30 pounds per square inch (psi). Pump 2 associated with scrubber 2 had a discharge pressure of 26 psi. Records for January 1, 2022, through September 12, 2022 were requested and reviewed. Each scrubber seems to operate the pump discharge, consistently above the minimum required 10 psig. There are periods of time when the pressure and flow data were not recorded due to the operator being on vacation. A violation notice was sent on September 20, 2022.

FGHEATTREAT

This facility group consists of two (2) emission units, EUSCANNER14 and EUHEATTREAT. EUSCANNER14 is a 14-foot vertical scanner was removed from service and decommissioned. EUHEATTREAT is a heat treat process equipped with three gas-fired furnaces with integral quench tanks; two gas-fired endothermic gas generators; two draw furnaces (one electric and one gas-fired); and one parts washer. These units do not have associated controls.

Special condition II.1 limits material usage for quench oil to 3,470 gallons during a 12-month rolling time period. SC VI.2. is the associated monitoring recordkeeping condition that requires the facility to record and calculate the quench oil usage. The facility is not maintaining a 12-month rolling record. During the walk through of the plant I viewed monthly records and summed the most recent 12 months. It appears the material usage is approximately 545 gallons, though it is clearly not a 12-month rolling record.

Special condition I.1. limits particulate emissions to 16.0 tpy based on a 12-month rolling time period. The facility is not maintaining this record. A violation notice was sent on September 20, 2022.

FGFACILITY

Emission limits appear to be opt-out limits for HAPs. The potential to emit (PTE) calculations could not be found therefore it is unknown what they were at the time of permitting and further if this is truly an opt-out permit. However, based on the HAP emission limits of 9 tpy for each individual HAP and 22.5 tpy for aggregate HAPs I am considering this an opt-out facility.

Based on previous inspections it appears that the hydrochloric acid in the muriatic acid used on the plating line was the was the only HAP associated with the facility, therefore the individual emissions are the same as the aggregate. The facility is not maintaining records. A violation notice was sent on September 20, 2022.

NAME  DATE 9/28/2022 SUPERVISOR