

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

B360767139

<b>FACILITY:</b> Thomas Aerospace & Defense		<b>SRN / ID:</b> B3607
<b>LOCATION:</b> 628 N HAMILTON, SAGINAW		<b>DISTRICT:</b> Bay City
<b>CITY:</b> SAGINAW		<b>COUNTY:</b> SAGINAW
<b>CONTACT:</b> Randy Zimmerman , Operations Manager-Facilities & Maintenance		<b>ACTIVITY DATE:</b> 04/19/2023
<b>STAFF:</b> Gina McCann	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Follow up inspection to VN wrote on September 20, 2022		
<b>RESOLVED COMPLAINTS:</b>		

On April 19, 2023, I performed an unannounced inspection of Linear Motion. I met with Scott Clifford, Director of Production for Thomson Aerospace and Defense. The purpose of the inspection was to determine compliance with conditions violated in PTI # 383-08 on September 20, 2022. It appears the facility has corrected the compliance issues noted in the violation notice written on September 20, 2022 and the violation notice can be considered resolved. At the time of the inspection the facility was 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.

#### 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 pressure differential logs. The facility appears to be maintaining these logs. In addition, during the last inspection when the collector was turned on, shotblast material "rained" down from loose piping. I spoke to maintenance when on-site and they showed me where they welded a piece that had been worn by the shot blast material. The mend appeared to be working. Mr. Clifford also relayed that additional capital had been secured to replace this equipment.

#### 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. All of the plating vats were empty and maintenance was being performed. The facility is working on changing out the plating material and will be coming in for a new PTI to incorporate the changes.

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. During the September 2022 inspection, there were several times when the liquid flow rate was below the required 42 gallons per minute (gpm). At the time of the inspection, I reviewed logs and it appeared the facility has corrected this.

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 September 2022 inspection, the facility was not keeping records when the main operator was scheduled off. Since then the facility has trained the other operators to record the flow. During this inspection, I reviewed scrubber flow records and it appears the facility has corrected this.

#### 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 quench oil usage for the 12-month rolling time period ending March 2022 was 640 gallons.

Special condition I.1. limits particulate emissions to 16.0 tpy based on a 12-month rolling time period. During the September 2022 inspection, the facility was not maintaining these records. As part of the April 2023 inspection I viewed emissions records and the PM emissions for the 12-month rolling time period ending March 2022 was 2.97 tpy. It appears the facility corrected this compliance issue.

#### 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.

Hydrochloric acid in the muriatic acid used on the plating line was the only HAP associated with the facility, therefore the individual emissions are the same as the aggregate. For the 12-month rolling time period ending March 2022, HAP emissions were 0.0 tpy. This seems logical, since the plating line has been shutdown for some time. It appears the facility has put this recordkeeping in place and therefore the violation notice written on September 20, 2022 can be considered resolved.

NAME



DATE 5/2/2023

SUPERVISOR

