

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

P130970099

FACILITY: SHANNON PRECISION FASTENER, LLC		SRN / ID: P1309
LOCATION: 6160 STONY RUN DRIVE, HOLLY		DISTRICT: Warren
CITY: HOLLY		COUNTY: OAKLAND
CONTACT: Phil Menzies ,		ACTIVITY DATE: 11/20/2023
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: FY2024 Inspection		
RESOLVED COMPLAINTS:		

On Monday, November 20, 2023, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of Shannon Precision Fasteners, LLC (P1309), located at 6160 Stony Run Drive Holly, MI. The purpose of this inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and Permit to Install (PTI) No. 159-22.

I arrived at Shannon Precision Fasteners, LLC at 1:00 PM and met with Phil Menzies. Prior to the inspection, records were requested and received on 11/7/2023. Upon arrival, we discussed the electronic records and discussed operations. I was then taken on a tour of the facility.

The facility began operation in March 2023. The heat treat line at Shannon Precision Fasteners, LLC Company operates 24 hours a day Monday through Friday (three eight-hour shifts). 47 people are currently employed by the company. This is Shannon Precision Fasteners, LLC 3rd facility in Michigan (1 in Madison Heights-P0595 and 1 in Auburn Hills-P0565). The facility contains a 6,000 lb per hour heat-treating line. The line is in a large warehouse. Inside the warehouse are machines for heading and rolling the parts prior to heat treating. This process is exempt from the requirement to obtain a PTI via R336.1285(2)(l)(i). There is also an aqueous parts washer and an endothermic generator to provide the atmosphere to the hardening furnace. These processes are exempt from the requirement to obtain a PTI via R336.1281(2)(k) and R336.1285(2)(l)(iv) respectively. The facility intends to add additional heat-treat lines in the future.

PTI No. 159-22

EUHEATREAT

A heat-treating line consisting of a pre-wash station (0.83 MMBtu/hr), a steel hardening furnace with a heat input rating of 5.635 MMBtu/hr, a below grade oil quench tank, a post-wash station (0.83 MMBtu/hr), a tempering furnace with a heat input rating of 3.25 MMBtu/hr and a post temper soluble oil (water and oil emulsion) tank. An endothermic generator provides the

atmosphere to the hardening furnace. The atmosphere of the hardening furnace is controlled by a flame curtain.

SC I.1 A VOC emission limit of 3.1 tons per year based on a 12-month rolling time period. Per VI.2, the facility has developed emission factors from stack testing at the Holly facility (soluble-0.0077 lbs VOC/ton metal) & at the Auburn Hills facility (quench-0.107 lbs VOC/ton metal). The emission factors are combined, and a safety factor is added to create an emission factor of 0.122 lbs VOC/ton metal. The highest 12-month rolling average VOC emission was in October 2023 at 0.15 tons per year (the facility has not yet operated 12-months).

SC II.1 A material limit of 26,280 tons per year of metal processed on a 12-month rolling time period. The highest monthly metal usage was in October 2023 at 2,457,040 lbs (1,229 tons). The highest 12-month rolling average material usage rate was in October 2023 at 5,728.87 tons per year (the facility has not yet operated 12-months).

SC IV.1 The permittee shall not operate EUHEATTREAT unless the flame curtain is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor. During inspection the flame curtain was installed.

SC V.1 Within 180 days after commencement of trial operation, the permittee shall verify VOC emission rates from SVSOLUBLE by testing at the owner's expense, in accordance with Department requirements. Stack testing occurred on 2/21/23. A VOC emission rate of 0.022 lb/hr (0.0077 lb VOC/ ton metal) was reported for the soluble tank portion of EUHEATTREAT.

SC V.2 Upon request of the AQD district supervisor, the permittee shall verify VOC emission rates from EUHEATTREAT by testing at the owner's expense, in accordance with Department requirements. The AQD has not requested additional emission testing on EUHEATTREAT. However, SC VI 2c requires the facility to maintain an emission factor for the heat-treating process. The facility uses a factor of 0.107 lbs VOC/ton metal (based on stack testing in 2015 at Auburn Hills facility) for emissions from EUHEATTREAT (excluding soluble tank emissions).

SC VI.1 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. During inspection on November 20th, 2023, the facility provided data for all months of operation up to October 2023.

SC VI.2 The permittee shall keep the following information on a monthly basis for EUHEATTREAT:

- a) The tons of metal processed per calendar month
- b) The tons of metal processed per 12-month rolling time period as determined at the end of each calendar month.
- c) The VOC emission factor (in lbs VOC/ton metal) for the heat-treating process.
- d) The VOC emission factor (in lbs VOC/ton metal) for the soluble oil tank
- e) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
- f) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

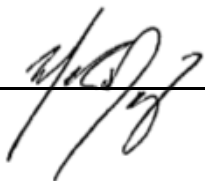
The facility is keeping the required records.

SC VII.1 Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUHEATTREAT. On April 21, 2023, the facility notified AQD of completion of installation and that trial operation began on March 27, 2023.

SC VIII.1-10 The exhaust stacks of EUHEATTREAT discharge unobstructed vertically. Stack dimensions were not verified during this inspection.

Based on the information gathered during the inspection, Shannon Precision Fasteners, LLC appears to be in compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and PTI No. 159-22.

NAME

DATE December 13, 2023 SUPERVISOR