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

N085445227

FACILITY: TI GROUP AUTOMOTIVE SYSTEMS LLC - Caro Test Center		**SRN / ID:** N0854
LOCATION: 628 COLUMBIA ST, CARO		**DISTRICT:** Saginaw Bay
CITY: CARO		**COUNTY:** TUSCOLA
CONTACT: Dave Schramski , Facilities Manager		**ACTIVITY DATE:** 07/09/2018
STAFF: Meg Sheehan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: On site inspection to determine compliance with MI-ROP-N0854-2018 and all other applicable state and federal air regulations		
RESOLVED COMPLAINTS:		

On Monday, July 9, 2018, a scheduled site inspection was conducted by AQD District Staff at the TI Group Automotive Systems production and test center facilities in Caro, Tuscola County, Michigan. The referenced facilities are located at 630 Columbia Street and 628 Columbia Street, respectively. The facilities were open and in operation upon arrival, and Mr. Dave Schramski (facilities manager) and Mr. Kurt Nickel (test center manager) provided tours and answered questions. Site inspection activities were conducted with the intent of confirming compliance with the existing Renewable Operating (Title V) Permit, MI-ROP-N0854-2018.

FACILITY DESCRIPTION

The site is devoted to manufacturing and testing fuel delivery components for the aftermarket automotive industry. The production facility consists primarily of component assembly and quality checking. A small portion of the facility is used for electric plastic injection molding. The test center performs durability, reliability, exposure, and general performance testing on automotive fuel pumps, tanks, modules and other components.

For Title V purposes, the two facilities are considered a single major stationary source due to the potential to emit (PTE) hazardous air pollutants (HAPs) above major source thresholds. Specifically, the PTE for a single HAP, toluene, exceeds 10 tons per year (tpy). The PTE for total HAPs exceeds the threshold of 25 tpy. The test center facility itself is a major source of volatile organic compounds (VOCs) because the PTE exceeds major source thresholds of 100 tpy.

Operations at the facility are currently considered exempt under R 336.1283(2)(d) – Equipment for the inspection of metal, wood, or plastic products. On November 3, 2005, TI Automotive submitted a 278A demonstration explaining how onsite activities do not result in an increase in actual emissions greater than the significance levels defined in R 336.1119.

Emission sources are limited to the venting of vapors as a result of QA/QC activities in the production facility, and processes in the test center facility which are reported to MAERS:

- EUGASRACK
- EULABR
- RGDLABS (EUDLAB1, EUDLAB2, EUDLAB3, EUDLAB4)
- RGFUELCHAMBERS (EUFUELCHMBRH1, EUFUELCHMBRH2)

PRODUCTION FACILITY

In the production facility, workers assemble the fuel pumps with parts that are purchased by TI Group and manufactured offsite (with the exception of a few plastic parts that are manufactured onsite using electric plastic injection molding which appears to be exempt from permitting.) The fuel pumps are QA/QC'd using Solvent 142-66 (MSDS attached) which the facility reports to be less volatile than the previously used mineral spirits. No odors were detectable while standing directly over the tank (10 – 15-gallon capacity) where the solvent is kept as part of the QA/QC booth. Each booth is equipped with a ventilation system that draws out any vapors that may be present. Mr. Schramski reported that monthly air flow checks are conducted to ensure proper ventilation.

TESTING FACILITY

Testing is conducted in individual labs (rooms/wings) in the facility, each designed to withstand explosion and/or fire. The fuel pumps are tested with up to 70 different types of fuels to mimic different environmental conditions, as well as foreign fuels for the international market. Air exchangers have been installed to keep VOC levels in the labs low. Mr. Nickel reported that the air is exchanged every six minutes, and little to no odors were observed

in the labs. The D labs (RGDLABS) are used for durability testing of equipment, with tests lasting from hundreds to tens of thousands of hours to reflect the use of a component over the life of the vehicle. The H chambers (RGFUELCHAMBERS) hold testing fuels for ongoing tests. The gas rack (EUGASRACK) is used to test initial fuel pump performance prior to durability and performance testing. The R labs (EULABR) are used for reliability testing, with tests lasting just minutes. Products are tested under heat or pressure to reflect environmental conditions the vehicle may encounter such as thermal shock. The facility also has an analytical lab to test for fuel characteristics as well as x-ray and infrared spectrometry capabilities for determining product wear and product composition signatures.

Emissions can vary year-to-year due to the unique nature of the facility's business and customers. For example, if more ethanol fuels are tested for the European market one year, VOC emissions may increase. If more diesel fuels are tested, VOC emissions may decrease.

EQUIPMENT INVENTORY

Tanks onsite include:

- Two 5,000-gallon interior above ground storage tanks for unused and spent Solvent 142-66.
- Nine bulk underground storage tanks for a variety of fuel types used by the test center; they range in size from 3,000 to 10,000 gallons each. One 10,000-gallon tank stores used fuel which is regularly emptied by a contracted hauler.
- Several 50-gallon drums containing a wide range of fuels, also for testing. All were properly sealed/covered and there were no spills at the time of my inspection.

Exempt emission units included in the ROP staff report include:

- EUUSTS9-17: nine underground storage tanks
- EUSPACEHEATERS: 38 natural gas fired, roof mounted space heating units, two are currently inactive
- EUTESTPROCESSHEATER: 500,000 Btu/hr process heater used to supply heat to test chambers
- EUPRODUCTIONHWHEATER: 199,000 Btu/hr domestic hot water heater
- EUPRODUCTIONBOILER1 and EUPRODUCTIONBOILER2: 985,000 Btu/hr boilers to provide heat to production area
- EUMINERALSPIRITSASTS: interior ASTs storing mineral spirits for use in testing production pumps

It should be noted that the heaters and two production boilers were previously subject to 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources for Industrial, Commercial, and Institutional Boilers and Process Heaters. The company determined the standards did not apply to their heaters and boilers because the production boilers were found to be excluded under 40 CFR 63.7491(d) for "a hot water heater as defined" with the definition in 63.7575 stating "hot water boilers (i.e. not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour" are included in the definition of hot water heaters. The two actual hot water heaters on site fall below the 120-gallon capacity threshold. The test center heater is an on demand 3.5-gallon unit while the production plant heater has a 91 gallon capacity.

COMPLIANCE HISTORY

No complaints are of record for the facility. MAERS and ROP annual and semiannual certifications have been submitted on time since 2008. No compliance issues have been noted during inspections conducted over the past 10 years.

COMPLIANCE DETERMINATION

There are no special conditions included in the ROP other than annual compliance certification reporting. As previously stated, all ROP certifications have been received in a timely manner. Staff reported that no changes had been made to the facility, process, or equipment since the May 18, 2016 inspection. I did advise Mr. Schramski that any future changes may be subject to permitting. At this time TI Group Automotive Systems in Caro, Michigan, appears to be in compliance with MI-ROP-N0854-2018 and all applicable rules and regulations.

NAME Meg Sheehan DATE 7/19/18 SUPERVISOR C. Hare