

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

P095772098

FACILITY: SAPA TRANSMISSION		SRN / ID: P0957
LOCATION: 51901 SHELBY PARKWAY, SHELBY TWP		DISTRICT: Warren
CITY: SHELBY TWP		COUNTY: MACOMB
CONTACT: Nebai Bernal , Test Engineer Supervisor		ACTIVITY DATE: 05/21/2024
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 24 Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, May 21, 2024, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of SAPA Transmission (P0957), located at 51901 Shelby Parkway Shelby Township, Michigan. 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. 107-20A.

I arrived at SAPA Transmission at 9:30 AM and met with Nebai Bernal, Test Engineer Supervisor. Also present was John Eriksson, Test Engineer. On May 13, 2024, records were requested and were made available during the inspection. Upon arrival, Nebai and I discussed the records and operations. I was then taken on a tour of the facility.

SAPA Transmission is a transmission testing facility. The equipment was originally permitted under PTI 133-18 at a different address. However, this equipment was never put into production mode at this location due to power supply issues. The current facility was built new for the equipment. The facility has 1 dynamometer test cell where transmissions are tested while connected to a diesel engine. The U.S. Military is the end user of these transmissions. The facility has a large warehouse and intends to expand operations. Nebai mentioned adding an electronic dyno to test electric motors as well as making modifications to the current stack and muffler to accommodate for the future. I notified Nebai that this would require a permit modification. The plant started operation on March 31, 2021. There is no emergency generator onsite. The facility has approximately 30 employees. According to Nebai, the facility operates 1 8-hour shift per day. During previous inspection, the facility was running some 24-hour testing on the dynos. According to Nebai, this length of testing has not occurred recently.

The facility requested a permit modification to increase diesel fuel throughput from 20 gal/hr and 20,000 gal/yr (on a 12-month rolling basis) to 45 gal/hr and 45,000 gal/yr (on a 12-month rolling basis). PTI 107-20A was issued on June 6, 2023, with the increased throughputs. The facility is considered a synthetic minor. PTI 107-20A does not list an engine size.

According to Nebai, a 700 HP engine that is owned by SAPA is tested as well as a 1,000 HP engine that was added to the emission inventory in December 2023. According to Nebai, the maximum capacity of the current dyno is 1,200 HP but it is currently designed for 1,000 HP as of today (Fuel system, cooling system, exhaust system).

Compliance

SAPA Transmission provided hard copies of all calculations. These documents can be found in the facility plant file.

PTI No. 107-20A

This PTI is for a transmission-testing dynamometer in a test cell where engines burn diesel fuel.

The facility provided hard copies of the records for the dynamometer. The records were for January 1, 2023-April 28, 2024.

SC II.1 According to Nebai and the usage records, the facility only burns diesel fuel.

SC II.2 A material limit of 45 gallons of diesel per hour. For the time reviewed, the highest average gallons per hour was 15.83 in March 2024.

SC II.3 A material limit of 45,000 gallons of diesel per rolling 12-month time period. The facility began operations in March 2021 although only approximately 1,000 gallons was burned between March 2021 and March 2022. From January 2023 to April 2024 the facility used approximately 5,041 gallons of diesel. The highest 12-month rolling average was from March 2023 to February 2024 at 4,378.8 gallons.

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. The facility is completing all required calculations.

SC VI.2 The permittee shall keep, in a satisfactory manner, records of the gallons of diesel used per hour in EUTESTCELL on an hourly basis. The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. SAPA provided the average hourly fuel usage.

SC VI.3 The permittee shall keep records of the following information on a monthly basis for EUTESTCELL:

- a. Diesel use calculations determining the gallons of diesel used per calendar month. SAPA is tracking fuel usage.
- b. Diesel use calculations determining the annual usage rate in gallons per 12-month rolling time period as determined at the end of each calendar month. SAPA provided the 12-month rolling diesel fuel usage.
- c. NOx emissions calculations determining the monthly emissions rate in tons per calendar month. SAPA is completing the calculations. The highest monthly NOx emissions were observed in February 2024 at approximately 0.25 tons.
- d. NOx emissions calculations determining the annual emission rate in tons per 12-month rolling time period. The 12-month rolling average NOx emissions for the time period ending in April 2024 was 1.26 tons.
- e. CO emissions calculations determining the monthly emissions rate in tons per calendar month. SAPA is completing the calculations. The highest monthly CO emissions were observed in February 2024 at approximately 0.35 tons.
- f. CO emissions calculations determining the annual emission rate in tons per 12-month rolling time period. The 12-month rolling average CO emissions for the time period ending in April 2024 was 1.74 tons.

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 EUTESTCELL. SAPA sent notification on May 6, 2021.

SC VIII.1 Exhaust gases from the boilers shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 8 inches at an exit point not less than 48.8 feet above ground level. The exhaust stack for the dynamometers appear to discharge vertically and unobstructed. Stack dimensions were not confirmed during this inspection.

Fuel storage tank

The facility has a 2,000-gallon above ground fuel storage tank as part of the dynamometer operations. The tank appears to be exempt from the requirements to obtain a PTI pursuant to Rule 284(2)(g)(iii).

Cold cleaner

The facility has an approximately 44 ½" x 21" cold cleaner. At the time of the inspection, the cleaner was not in use and the lid was closed. There were not instructions posted near or on the tank. A copy of the cold cleaner sticker was sent to the facility after inspection. A VN will not be sent for this. According to Nebai, Safety Kleen maintains the cold cleaner. The cold cleaner appears to be exempt from the requirements to have a PTI pursuant to Rule 282(2)(h).

Based on the information gathered during the inspection, **SAPA Transmission, Inc.** 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. 107-20A.

NAME 

DATE 06-04-2024

SUPERVISOR 