

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

U6311031826537

FACILITY: Continental Automotive Systems		SRN / ID: U63110318
LOCATION: One Continental Drive, Auburn Hills		DISTRICT: Southeast Michigan
CITY: Auburn Hills		COUNTY: OAKLAND
CONTACT: Kathy Spinks, Sr. ESH Admin II		ACTIVITY DATE: 08/19/2014
STAFF: Rebecca Loftus	COMPLIANCE STATUS: Compliance	SOURCE CLASS: <i>Misc</i>
SUBJECT:		
RESOLVED COMPLAINTS:		

On August 19, 2014, I, Rebecca Loftus, from the Department of Environmental Quality's (DEQ), Air Quality Division (AQD), conducted a self-initiated inspection of Continental Automotive Systems – North, located at One Continental Drive, Auburn Hills, 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 Michigan's Air Pollution Control Rules.

I arrived on-site at 12:00pm and met with Ms. Kathy Spinks, Senior EHS Administrator. Ms. Spinks explained that this location, known as Continental Automotive North, is a R&D facility which conducts laboratory testing and simulated testing of different automotive components including six electric brake dynamometers. Since my last inspection in 2012, additional labs have been added to the building, but no new processes with potential air emissions were observed.

Brake Dynamometer Lab

The work in the brake dynamometer lab is focused on performance testing and noise testing of brake calipers and drums. Brake lining durability is not run in the lab. The lab operates one shift, 5 days per week, and has five electric motor driven inertial brake dynamometers. Two of the dynamometer test chambers have unfiltered exhaust and three have filtered exhaust.

On August 8, 2011, I received an email from Mr. Geoff Bauer, Test and Development Manager (see email in file). Continental Automotive provided two methods of estimating Particulate matter (PM) emissions from the brake dynamometers. For the two unfiltered exhaust systems, Continental Automotive calculated the potential maximum emission for PM to be 26.07 kg/yr (57 lbs/year). Based on the information provided, the brake dynamometer test cells appear to be exempt from obtaining an air PTI pursuant to Rule 290.

Other Labs

The remainder of the building is broken down into multiple rooms/labs, each configured for the specific test being performed. These rooms/labs include:

- Endurance Lab: corrosion testing using saltwater.
- ABS area: simulated brake activity.
- PSAD Lab: software/hardware computer testing.
- Chassis Lab: Hydraulic pumps using hydraulics and electricity; exhaust system for heat. Thermotrons also vent brake fluid vapors.
- EMC: electromagnetic testing hardware.
- Conventional Lab: brake pad testing - two small pieces of equipment are used to heat brake pads and the exhaust system is used to remove odors created during the process; equipment used infrequently.
- Meteorology Lab: Microscopes and other lab equipment.
- Sensors Lab: Thermotron chambers (Temperature-Humidity control). Old hood use to be used to capture vapors from acid testing; no longer in use.
- Actuation Lab: Ventilation hood used when washing parts w/alcohol; a 710 mL lab bottle is used to spray parts. In an average month 15 of the bottles are used.
- Machine Shop: All machining equipment exhaust to an indoor Torit vacuum collector, the pieces of metal collected are sent to a dumpster for disposal. Hand welding equipment exhaust externally. A small aqueous-based parts washer is also in this room.
- Garage: Cars are brought inside the garage and brake systems are installed and set up for future testing (either on a test track or on the road). When the brake systems are initially set up, the cars are started up inside the garage and a ventilation hose is attached to the car's exhaust pipe to vent emissions outdoors. Ms. Spinks stated that the employees do not track fuel usage or running time. Cars are run for a few minutes at a time to check the installed brake system; cars do not run every day. A small aqueous-based parts washer is also located in the garage.



The machining equipment appears to be exempt from obtaining a PTI pursuant to Rule 285(l)(vi)(B) and the welding equipment pursuant to Rule 285(i).

Continental Automotive believes the emissions from the garage exhaust system are very small and from mobile sources; not one stationary source. While the EPA has issued guidance on this matter, a compliance evaluation of the emissions from the garage will be re-visited during a future inspection.

Conclusion

At this time, Continental Automotive Systems' North Building, located at One Continental Drive, Auburn Hills, appears to be in compliance with the Federal Clean Air Act and Michigan's Air Pollution Control Rules.

NAME Rebecca J. Hill

DATE 9/24/14

SUPERVISOR CJE