

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

U6310053555433

FACILITY: Mazda North American Operations		SRN / ID: U63100535
LOCATION: 46976 Magellan Drive, Wixom		DISTRICT: Warren
CITY: Wixom		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 09/21/2020
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: FY 2020 inspection of Mazda North American Operations ("Mazda")		
RESOLVED COMPLAINTS:		

Mazda North American Operations (U-63-10-0535)
Powertrain Engineering Group
46976 Magellan Drive
Wixom, Michigan 48393-

SRN reassign: Suzuki Tech Center (U-63-10-0535) → Mazda North American Operations (U-63-10-0535). Mazda moved to Wixom in 2013.

Permit-to-Install: Based upon AQD's interim policy (June 12, 2013, AQD Chief Hellwig e-mail), at the option of the company, AQD will issue Rule 201 permit for Chassis Dynamometers, if requested.

Not subject to (not major source for HAPs): Major Source NESHAP / MACT 5P, 40 CFR Part 63, Subpart PPPPP, National Emission Standards for Hazardous Air Pollutants: Engine Test Cells/Stand, (Page 28774, Federal Register / Vol. 68, No. 101 / Tuesday, May 27, 2003 / Rules and Regulations) / Final rule.

Not Subject to: NESHAP/ MACT T, area source National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; NESHAP/ MACT T); Correction; 29484 Federal Register / Vol. 60, No. 107 / Monday, June 5, 1995 / Rules and Regulations; amended National Air Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T); Final Rule; Page 25138 Federal Register / Vol. 72, No. 85 / Thursday, May 3, 2007 / Rules and Regulations. Mazda does not use Halogenated (Cl, Br, I, etc.) solvents.

Tax Exemption: AQD (Jim Day) denied Tax Exemption 1-3223 for \$3,856,128.00 (entire Wixom facility) in 2004. Michigan Supreme Court upheld the denial.

On September 21, 2020, I conducted a level 2 self-initiated **FY 2020 inspection** of Mazda North American Operations ("Mazda"), Powertrain Engineering Group, formerly operated by Suzuki as Suzuki Tech Center ("Suzuki") located at 46976 Magellan Drive, Wixom, Michigan 48393. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; and Michigan Department of Environment, Great Lakes and Energy, Air Quality Division (EGLE-AQD) administrative rules.

During the inspection, Mr. Bill Kocher (Phone: 248-295-7860; Fax: 248-295-7857; Cell: 248-978-5325; E-mail: bKocher@mazdaUSA.com), Project Manager, Emission Testing and Compliance, assisted me.

About September 2013, Mazda bought Suzuki's facility including building, equipment, instruments, computers, etc. as American Suzuki Motor Corp. filed for Chapter 11 Bankruptcy (March 31, 2013, Santa Ana, CA). Mazda moved into this building about November 2013. At the Wixom site, Mazda conducts research and development, testing, administrative, and office activities. Manufacturing is not taking place. Mazda does not manufacture automobiles anymore in US. But Mazda sells its products in US. Hence, a testing facility is present in US to satisfy US EPA mobile source emission rules.

At Mazda's Wixom facility, fully assembled, road-worthy vehicles, with the required US EPA mobile source catalytic converters, are tested for exhaust analyses. There is neither transmission nor engine dynamometer present, only chassis dyno. Only automotive exhaust testing according to US EPA protocols takes place.

Two chassis dynamometers (dynos) are present. Automotive exhaust is analyzed for CO, CO₂, HC, NO_x, N₂O (nitrous oxide aka laughing gas) & CH₄ (methane) as required by US EPA per Mobile Sources part of Clean Air Act. N₂O (CAS # 10024-97-2), nitrous oxide, aka laughing gas, anesthetic, was added about 2015. From two dynos, exhaust gases are discharged via two 35-foot stacks: one analyzer stack and other non-analyzer stack. If the gases are analyzed, they go through analyzer stack or else they go through non-analyzer stack. One intake air filter system is present to dilute exhaust gases for analytical purposes.

One of two test cells (associated with analyzer stack), is capable of testing both 2-wheel and 4-wheel drive vehicles.

Direct injection gasoline engines and diesel engines are also tested. Hariba analyzer is used for particulate sampling. For gaseous pollutants also a separate Hariba analyzer is used. A mixer (a pipe with mixing baffles) for dilution air is used and dilution air is filtered to remove large particles.

AQD will review and issue a construction permit for the dyno test cells if requested according to June 12, 2013, AQD Chief Hellwig e-mail.

One cold-cleaner

There is one (1) Safety-Kleen 3'x4' parts cold-cleaner. The cold-cleaner is subject rule 336.611 or 336.1707 depending on if it is new or existing. A cold-cleaner is exempt from Rule 336.1201 pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaner is placed into operation prior to July 1, 1979. New cold cleaner is placed into operation on or after July 1, 1979. This is a brand new cold cleaner.

The solvent is stored in the tank (25-gallon drum, enclosed reservoir). Parts are placed in the sink area and solvent is pumped over the part. The solvent then drains back into the drum. Mineral spirits, a low vapor pressure organic solvent, is used as a cleaner.

Mechanically assisted lid is present. The operating procedures were posted.

On November 25, 2014, I gave Mr. Bill Kocher DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules. I asked the company to follow the commonsense work practice in the procedures. Safety-Kleen services the equipment replacing solvent about once per quarter.

Mineral spirits containing no halogenated solvents is used. The Cold-cleaner is NOT Subject to: 40 CFR, Part 63, Subpart T, NESHAP/ MACT T, since solvents containing halogenated compounds are not used.

Safety-Kleen Premium Solvent (Virgin and Recycled) (CAS 64742-47-8). Richardson, Texas (800-669-5740)

100% VOC Petroleum Distillates (CAS 64742-47-8). Flash Point (FP) = 148 °F TCC(Tag Closed Cup). Auto Ignition = 480 °F. Boiling Point (BP) = 350 °F @ 760 mm Hg. Vapor Pressure (VP) = 2 mm Hg at 68 °. Specific Gravity (SG, Water = 1.0) = 0.77-0.82. Density (ρ) @ 68 °F = 6.4-6.7 lbs. / gallon (0.770-0.800 kg /L). Flammability range = 0.7 %v (LEL) – 5%v (UEL).

Safety-Kleen services the equipment and delivers clean solvent once every six months. SK picks up dirty solvent for recycle.

Tax Exemption 1-3223

AQD (Jim Day) denied Tax Exemption 1-3223 for \$3,856,128.00 (entire Wixom facility) in 2004. Suzuki sued State Treasury in Oakland County Circuit Court. The tax exemption claim was based upon CAA Mobile Source requirements.

The matter was resolved by Michigan Supreme Court (Nos. 133400-06). On appeal by Suzuki, the circuit court entered a stipulated order "to hold this case in abeyance until final resolution of Ford cases (App 136a-137a). Supreme Court concluded the test cells are used during R & D, design, and manufacturing solely to test emissions from sample vehicles and engines as a part of manufacture of end products that are not specifically destined for use within Michigan. Thus, the test cells do not satisfy the plain meaning of the operative language of §5901 and §5903 and the agency correctly applied the plain language when it denied Part 59 tax exemptions.

August 16, 2010, Hyundai letter

In connection with Hyundai America Technical Center, Inc., AQD sought US EPA determination, via December 10, 2008, letter, regarding potential-to-emit (PTE) calculations and permitting of engine and chassis dynamometers. EPA communicated to AQD, via August 16, 2010, letter, its determination that chassis dynamometers were regulated as stationary sources since the vehicles were not put into commerce. AQD Chief Hellwig wrote a letter dated September 1, 2010, to each known affected source with a copy of US EPA's determination (August 16, 2010, letter to Mr. Hellwig from Ms. Cheryl L. Newton, Division Director, Air and Radiation Division of US EPA Region V).

June 12, 2013, AQD Chief Hellwig e-mail: At this time, AQD will not enforce Rule 336.1201 for chassis dynos. However, AQD will review and issue a construction permit (Permit-to-Install) if requested. Mazda can benefit from a NESHAP / MACT 5P opt-out permit.

Conclusion

AQD will review and issue a Rule 201 permit for the dyno test cells if requested. Otherwise, the chassis test cells are exempt from Rule 201 permit.

NAME J. S. McNamehall

DATE December 29, 2020 SUPERVISOR Joyce