

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

FY2015 Insp-

N004128800

FACILITY: MERITOR LLC		SRN / ID: N0041
LOCATION: 2135 W MAPLE RD, TROY		DISTRICT: Southeast Michigan
CITY: TROY		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 10/24/2014
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: <i>78</i>	SOURCE CLASS: MINOR
SUBJECT: FY 2015 annual inspection of Meritor, LLC		
RESOLVED COMPLAINTS:		

N0041 - SAR - 2014 10 24

Meritor, LLC. (N0041)

F.K.A. Rockwell International Corporation, Rockwell Automotive, Meritor, LLC, Arvin Meritor, LLC
2135 West Maple Road
Troy, Michigan 48084-7121

www.ArvinMeritor.com

Voided on April 9, 2009: PTI Nos.: 526-96 (ROP opt-out) dated January 30, 1997, 196-88 dated April 27, 1988, based upon FY 2009 inspection, Meritor's (Mr. Krockta) request and verification of PTE.

VOIDS: 752-87 (2/24/1997), 178-89 (2/24/1997), 196-88 (04/09/2009) and ROP opt-out 526-96 (04/09/2009)

My be subject to: Area source NESHAP / MACT ZZZZ (4Z) / RICE MACT, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines / Final rule (Page 3568, Federal Register / Vol. 73, No. 13 / Friday, January 18, 2008 / Rules and Regulations / Final rule; Page 51570 Federal Register / Vol. 75, No. 161 / Friday, August 20, 2010 / Rules and Regulations / Final rule; Page 12863 Federal Register / Vol. 76, No. 46 / Wednesday, March 9, 2011 / Rules and Regulations / Direct final rule; amendments for August 20, 2010, final rule; etc.). AQD has decided not to take delegation of these standards and therefore no attempt has been made evaluate Meritor's compliance with NESHAP / MACT 4Z.

Not subject to: Asbestos NESHAP (40 CFR, Part 61, Subpart M known as old NESHAP)

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

On October 24, 201⁴, I conducted a level-2 self-initiated annual inspection of Arvin Meritor, LLC (a.k.a. Meritor; due to merger, on July 7, 2000, of Arvin, Inc., and Meritor Automotive, Inc) located at 2135 West Maple Road, Troy, Michigan 48084. 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; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

In addition, the purpose of inspection was to follow-up on PTI (including ROP synthetic minor) voids of April 2009.

During the inspection, Ms. Monique L. Brewer (Phone: 248-435-9401; fax: 248-435-1393; cell: 248-670-5382; E-mail: Monique.Brewer@ArvinMeritor.com), Health and Safety Coordinator, assisted me. Ms. Meghann E.

Muldoon Muldoon, (Meghann.Muldoon@Meritor.com), Student Asst., was also present.

Mr. Mark Nowakowski (Phone: 248-435-1614; fax: 248-435-1422; cell: 248-361-5359), Supervisor Shipping & Receiving and Environmental, retired about June 2014. Mr. Tim Krockta (Phone: 248-435-7908; Mobile: 586-292-7507), CSP, CHMM, Corporate Environmental Manager, separated about May 2014 due to workforce reduction from 1,200 to 1,000 employees (currently [Oct 2014] at Molley Industries)

Mr. John Bozick, Environmental Engineer (248-435-7908) separated from Meritor in November 2007. Mr. Ronald H. Ostrowski (phone: 248-435-1635; fax: 248-435-2098; cell: 248-227-4879), Director, Corporate Environmental, separated in October 2011. In CY 2008, Mr. Ostrowki hired Mr. Krockta as a replacement for Mr. Bozick.

As a global provider of integrated automotive systems, modules and components, the company delivers advanced technological solutions for commercial truck, trailer and specialty original equipment manufacturers (OEMs) and related aftermarkets

This is an engineering, testing and research & development facility with manufacturing not taking place. Two transmission dynamometers — one cell of two cells has been removed about twenty five years ago and the other cell was moved to North Carolina in July 2002— were the major source of air contaminants. Because of transmission dynamometers, the company obtained an opt-out permit #526-96 (voided on Apr 9, 2009) to become a synthetic minor source for Title V operating permit program. But, in CY 2002, the transmission dynamometers have been moved to Maxton, North Carolina, resulting in true minor source status.

The facility has several industrial and commercial boilers as follows:

1. Cleveland-Welbuilt (0.2 million BTU per hour heat input), a vegetable steamer in cafeteria
2. Lattner (0.335 million BTU per hour heat input), humidifier
3. Lochinvar (0.75 million BTU per hour heat input), domestic hotwater
4. Bryan #317286 (1.8 million BTU per hour heat input) removed in CY 2005 replaced by Repack boilers
5. Bryan #317287 (1.8 million BTU per hour heat input) removed in CY 2005 replaced by Repack boilers
6. Orr & Sembower #301248 (10.45 million BTU per hour heat input), hot water boiler for space heating
7. Orr & Sembower #301249 (10.45 million BTU per hour heat input), hot water boiler for space heating. In 2010, the burner controls were installed to improve thermal efficiency.
8. Raypack (0.95 million BTU per hour heat input), domestic hot water boiler
9. Raypack (2.3 million BTU per hour heat input), space heating
10. Raypack (2.3 million BTU per hour heat input), space heating
11. Electric Space heater 1
12. Electric Space heater 2

Both industrial and commercial boilers are used for space heating only because this is an R&D and testing facility. All boilers are fired with sweet natural gas only and fuel oil is not used as a backup fuel. The sweet natural gas fired boilers (up to 50 million BTU per hour heat input) are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1282(b). The boilers are neither subject to **NSPS Dc** nor clean air fees because two 10.5 million BTU per hour boilers (two Orr & Sembower boilers) were installed in 1969 (<< 1989).

Rule 285 brake dynamometers

The troy complex has brake dynamometers (PTI #196-88 voided in Apr 2009). The air contaminant from these sources is particulate matter from brake shoes. The brake and axle dynamometers have closed air systems. Air is filtered through a pleated air filter system and is reused and hence air is not released to environment. Asbestos brakes are not tested at the facility; therefore, the brake dynamometers are not subject to Asbestos NESHAP (40 CFR, Part 61, Subpart M). Brake Dynamometer #1: 250 rpm, 610,118 N-M or 5,400,000 lbs.-inch torque, powered by electric 200 hp D.C. motor. Brake Dynamometer #2: 650 rpm, 20,337 N-M or 180,000 lbs.-inch torque, powered by 200 hp electric D.C. motor. Brake Dynamometer #3: 800 rpm, 56,492 N-M torque, powered by electric D.C. motor of 400 HP. 450 HP electric axle dynamometer is also present.

The brake dynamometers are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285.

The brake dynamometers (voided PTI #196-88) are not subject to **Asbestos NESHAP** (40 CFR, Part 61, Subpart M known as old NESHAP) because asbestos is not used.

Rule 287(b) paint spray booth

One 10 ft. *10 ft. * 4 ft. spray booth with back filters is present. Only spray cans were used. Now (Oct 2014), the booth is used as storage space)

The aerosol spray can painting is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.287(b).

Rule 285 brake hub durability test facility

One brake hub durability test facility is present. The process was equipped with Dust-Hog filter system. Two 55-gallon drums are the hoppers to store collected dust. The 55-gal drums have never been emptied; small quantity dust. No exhaust to outside ambient air. Now (Oct 2014) Dust-Hog is removed and stored outside idle.

The brake hub test facilities are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285.

Emergency Generators (3)

Maybe subject to RICE MACT

There are three (3) backup generators, which use diesel fuel; the generators are used only during power supply interruptions for basic functions such as lighting. One portable generator was removed in CY2007. It was replaced by a fixed Caterpillar Diesel Generator (300 kW). Three diesel emergency generators are as follows:

1. Caterpillar Diesel Generator Model # Michigan CAT C9 PKGG, 300 kW 480 Volts, 1000 gallons, , Item #832002
2. Olympian Diesel Generator Model # OlympianD40P2, 45 kW, 50 kVA 480 Volts, 112 gallons, Item #75261
3. GenSet 100 Diesel Generator Model # Onan 100 odvc-15r/27613a,100 kW 480, 250 gallons Volts Item # 75125

1,000 kW (1 MW) generator is equivalent to 8.2 million BTU per hour heat input based upon 60 gallons per hour fuel (diesel) consumption at peak load and 137,000 BTU per gallon of diesel. Therefore, the generators (<10 million BTU per hour heat input internal combustion engines) are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 285(g).

The generators are not used for last many years except for monthly testing and, therefore, diesel usage by the generators is small quantity.

Three generators are subject to: Area source NESHAP / MACT ZZZZ (4Z) / RICE MACT, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines / Final rule (Page 3568, Federal Register / Vol. 73, No. 13 / Friday, January 18, 2008 / Rules and Regulations / Final rule; Page 51570 Federal Register / Vol. 75, No. 161 / Friday, August 20, 2010 / Rules and Regulations / Final rule; Page 12863 Federal Register / Vol. 76, No. 46 / Wednesday, March 9, 2011 / Rules and Regulations / Direct final rule; amendments for August 20, 2010, final rule; etc.). AQD has decided not to take delegation of these standards and therefore no attempt has been made evaluate Meritor's compliance with NESHAP / MACT 4Z.

Cold-cleaners

Four parts washers are present as follows:

1. Graymills LiftKleen parts washer (5.5 ft * 3.5 ft, 330 gallon capacity). Power-assisted lid is kept closed at all times. A filter system is present; twice a day solvent cleaning cycle is run. Meritor has posted corporate cleaning procedure. Power assisted lid is present.
2. One small parts washer (3 feet*43 feet, Snap-on 30 gallon capacity) is present. Mechanically assisted lid is present. Spray brush is present.
3. One small parts washer (2 feet*3 feet, Snap-on 16 gallon capacity,) is present. Mechanically assisted lid is present. Spray brush is present. Tank-on-drum type.
4. One small parts washer (3 feet*4 feet) is present. Mechanically assisted lid is present. Spray brush is present. Gray-Mill Clean-O-Matic.

Each 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 cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. While small cold cleaners are exempt from Rule 336.1201 pursuant to Rule 281(h), Graymills LiftKleen parts washer (5.5 ft * 3.5 ft, 330 gallon capacity) is exempt pursuant to Rule 285(r)(iv).

In December 2007, I gave Nowakowski three copies of DEQ's "cold-cleaner operating procedures" to post near the degreasers. On March 13, 2009, and Oct 2014, I confirmed that the procedures were posted.

The Cold-cleaners are NOT Subject to: 40 CFR, Part 63, Subpart T, NESHAP/ MACT T, since solvents containing halogenated compounds are not used.

Graymills Corp. (Chicago 800-424-9300) Super Agitene 141. Aliphatic Petroleum Distillate containing 97%v DPM (Dipropylene Glycol Methyl Ether CAS 64742-88-7)

100% VOC solvent. Flash Point (FP) = 142 °F TCC. Auto Ignition = NA °F. Boiling Point (BP) = 360-410°F @ 760 mm Hg. Vapor Pressure (VP) = 0.2 mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 0.8. Density (ρ) @ 68 °F = 6.6 lbs. / gallon (0.8 kg /L). Flammability range = 0.9 %v (LEL) – 7%v (UEL).

Laboratories

Environmental corrosion lab (hot water salt bath), structural testing labs, prototype assembly, etc. are not sources of air contaminants.

Natural gas usage

Meritor used 309, 2012 Therms = 30,921 M SCF = 30.921 MM SCF = 30.921 Billion Btu of natural gas in CY 2011.

ROP opt-out PTI No. 526-96 void request

On April 25, 2008, Mr. Krockta requested Ms. Teresa Seidel of MDEQ-AQD via e-mail to void ROP Opt-out PTI No. 526-96. I put a "pause" to an ongoing PTI void process, which Ms. Sue Thelen of AQD had started. Subsequently, I requested Mr. Krockta to submit Potential-to-Emit (PTE) calculations based upon 8,760 hours of operation per year (24/7/365) and upon maximum design capacity of each equipment / process using the PTE calculation guidebook. The ROP Opt-out permit without a proof that Meritor was true minor source.

On November 13, 2008, AQD received Meritor's PTE calculations. AQD could not conduct an inspection, until March 13, 2009, due scheduling conflict with Mr. Krockta. However, the March 13 inspection was also unannounced as usual taking advantage of a month Mr. Krockta would be available.

Based upon the March 13, 2009, and February 9, 2012, inspections and review of the PTE calculations, facts pertaining to the active permits are:

1. PTI No. 526-96 – ROP Opt-out permit for combustion equipment such as industrial and commercial boilers (8), emergency diesel generators (3). Based upon FY 2009, inspection, the opt-out permit is voided on April 9, 2009.

2. PTI No. 196-88 – Brake and axle dynamometers (exhaust air is filtered using a pleated air filter system and recirculated into the building) – exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285. Asbestos is not used for a couple of decades. Based upon FY 2009, inspection, the permit is voided on April 9, 2009.

According to the PTE calculations (24/7/365 = 8,760 hrs/yr except generators which used 500 hrs/yr), facility-wide nitrogen oxides (most significant pollutant used as a key) are 20 tons per year based upon 8,760 hours per year. Substantial reduction in emissions (both actual and PTE) occurred after the truck transmission dynamometers were moved to North Carolina. Because NOx PTE is significantly less than 50 tons per year, ROP Opt-out PTI No. 526-96 was voided on Apr 9, 2009. Pursuant to Rule 336.1285, brake and axle dynamometers are exempt from Rule 201 as exhaust air is not vented to outside ambient air directly. Approximately, based upon PTE, 15 tons of NOx per year is emitted by commercial and industrial boilers (based upon 8,760 hrs/yr) and 5 tons of NOx per year emergency diesel generators (based upon 500 hrs/yr).

Conclusion:

PTI Nos. 526-96 (ROP Opt-out) and 196-88 are voided in April 2009. The boilers are neither subject to NSPS Dc nor clean air fees because two 10.5 million BTU per hour boilers (two Orr & Sembower boilers) were installed in 1969. The brake dynamometers (voided PTI #196-88) are not subject to Asbestos NESHAP (40 CFR, Part 61, Subpart M known as old NESHAP) because asbestos is not used.

NAME J. S. McConaha DATE 03/12/2015 SUPERVISOR CJE



OCT 2014

Meritor, Inc.

Emergency Generator SPCC Monthly Inspection Log

Monthly inspections include a determination of storage tank conditions (drip marks, discoloration, corrosion, cracks, and dead vegetation), storage tank foundations (cracks, settling, damage from vegetation, etc.), piping (droplets, corrosion, material seepage, etc.), dike or bern system or secondary containment.

Emergency Generator Olympian D40P2 Item# 75261 50kva 112 gallons	Ok	Needs Attention	Actions Taken/ Additional Comments
Tank/ Container Condition, Corrosion, Deterioration	✓		
Piping Conditions, Corrosion, Supports, Leaks, etc	✓		
Secondary Containment and Loading Areas, etc	✓		

Model #: Olympian D40P2

Inspected by: M Dion

Date: 10/10/14

OCT 2014

Meritor, Inc.

Emergency Generator SPCC Monthly Inspection Log

Monthly inspections include a determination of storage tank conditions (drip marks, discoloration, corrosion, cracks, and dead vegetation), storage tank foundations (cracks, settling, damage from vegetation, etc.), piping (droplets, corrosion, material seepage, etc.), dike or berm system or secondary containment.

Emergency Generator Genset 100- Item #75125 100kw, 250 gallon	Ok	Needs Attention	Actions Taken/ Additional Comments
Tank/ Container Condition, Corrosion, Deterioration	✓		
Piping Conditions, Corrosion, Supports, Leaks, etc	✓		
Secondary Containment and Loading Areas, etc	✓		

Model # Onan 100.cdvc-Kr/276/3a

Inspected by: M DION

Date: 10/10/14

OCT 2014

Meritor, Inc.

Emergency Generator SPCC Monthly Inspection Log

Monthly inspections include a determination of storage tank conditions (drip marks, discoloration, corrosion, cracks, and dead vegetation), storage tank foundations (cracks, settling, damage from vegetation, etc.), piping (droplets, corrosion, material seepage, etc.), dike or berm system or secondary containment.

Emergency Generator Caterpillar Item #83202 300kw, 1000 gallon	Ok	Needs Attention	Actions Taken/ Additional Comments
Tank/ Container Condition, Corrosion, Deterioration	✓		
Piping Conditions, Corrosion, Supports, Leaks, etc	✓		
Secondary Containment and Loading Areas, etc	✓		

Model # Michigan CAT C9 PH66

Inspected by: M DION

Date: 10/10/14

Konanahalli, Iranna (DEQ)

From: Muldoon, Meghann E. <Meghann.Muldoon@Meritor.com>
Sent: Thursday, March 12, 2015 2:48 PM
To: Konanahalli, Iranna (DEQ)
Subject: FW: SDS and model #
Attachments: DOC038.PDF; DOC039.PDF

Hi Iranna-

Attached is the sds and model numbers for the generators you asked for. If you need anything else please let me know.

Regards,

MERITOR

Meghann Muldoon
EHS Specialist
Office Hours: Monday-Friday 7:30 am – 4:00 pm
248.435.1475 tel
248.435.6102 fax

Meritor, Inc.
2135 W. Maple
Troy, MI 48084
United States
meghann.muldoon@meritor.com

From: Muldoon, Meghann E.
Sent: Tuesday, October 28, 2014 10:55 AM
To: 'konanahalli@michigan.gov'
Subject: SDS and model #

Hi Iranna-

Attached is the sds and model numbers for the generators you asked for. If you need anything else please let me know.

Thank you,

MERITOR

Meghann Muldoon
EHS Intern
Office Hours: Monday-Friday 8-4
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248.435.6102 fax

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