

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

ACTIVITY REPORT: Self Initiated Inspection

FY 2015 Insp

N229727845

FACILITY: MacLean Royal Oak, LLC		SRN / ID: N2297
LOCATION: 3200 W 14 MILE RD, ROYAL OAK		DISTRICT: Southeast Michigan
CITY: ROYAL OAK		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 11/13/2014
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY 2014 inspection of MacLean Royal Oak, LLC ("MacLean") dba MacLean-Fogg Component Solutions, A MacLean-Fogg Company		
RESOLVED COMPLAINTS:		

E-file: N 2297 - SAR - 2014 11 13

**MacLean Royal Oak, LLC (N2297)
FKA Industrial and Automation Fasteners
DBA MacLean-Fogg Component Solutions, formerly MacLean Vehicle Systems
A MacLean-Fogg Company
3200 W. 14 Mile Road
Royal Oak, Michigan 48073-1699**

Name Change (Jan 2012): Industrial and Automation Fasteners (N2297) → MacLean Royal Oak, LLC (N2297)

DBA Change (Jan 2012): MacLean Vehicle Systems or MVS → MacLean-Fogg Component Solutions

Web: www.MacLeanFogg.com

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 November 13, 2014, I conducted a level 2 self-initiated inspection of MacLean Royal Oak, LLC ("MacLean") dba MacLean-Fogg Component Solutions, A MacLean-Fogg Company, located at 3200 W. 14 Mile Road, Royal Oak, Michigan 48073-1699. 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 Environmental Quality, Air Quality Division (MDEQ-AQD) rules.

During the inspection, Mr. Gregory A. Dean (Ph: 248-658-2707; fax: 248-280-3840; Cell: 248-933-4289; E-mail: gdean@macleanfogg.com), Quality Supervisor, assisted me.

About 2013, Ms. Denise Ballanger (Ph: 248-658-2713), HR Manager, separated from MacLean-Fogg. Mr. Ben Ancona (Ph: 248-658-2727; fax: 248-280-3840; Cell: 586-436-5738; e-mail: bancona@maclean-fogg.com), Director of Operations, was not present.

In 1999, MacLean-Fogg bought Industrial and Automation Fasteners and renamed it as MacLean Vehicle Systems (MVS), DBA; Industrial and Automation Fasteners. In 1925,

Messrs. John MacLean and Jack Fogg founded MVS, which is four hundred million dollar company with facilities in North America, Europe, and Asia. MacLean is world leader in supplying high performance fasteners to automotive, truck, aerospace, etc. markets. In January 2012, MVS became MacLean Royal Oak, LLC and dba became MacLean-Fogg Component Solutions

MacLean-Fogg started operations at 125 Allen Road, Troy. From Royal Oak, MacLean-Fogg moved deep draw machines (23), assembly machines (4), parts-cleaner (1) to Troy. Royal Oak facility bought one new parts cleaner to replace the loss to Troy facility.

At Royal Oak, MacLean makes lug nuts (under trade name Decorex Wheel Fasteners) for cars' and trucks' wheels and supplies them to automotive assembly plants. Chromium and other coating processes are outsourced to the plating companies. The boilers have been idled and forced-air circulation system has been installed for space heating. Lubricating and cutting oils are used which may produce odor due to bacterial action if not managed properly.

Rule 285(l) Forming, Tapping, Assembly and Press Machines

Six (6) forming machines with Absolent filters to control oil mist are present; oil is used for cooling forming operations. All Smog-hogs are (by Nov 2014) replaced by Absolent Air Purifiers, which contain Cartridge Filters. MacLean operates 3 8-hour shifts for Monday thru Friday; 3 7-hour shifts for Saturday; and 1 7-hour shift for Sunday. Exhaust will continue to be recycled into the plant. Tapping machines (in all 24; in Dec 2011, 2 more machines were installed), which use cutting oil, put threads into the nuts. Stainless Steel (SS) caps for nuts are made using SS sheet forming machines.

The 6 forming, 14 presses and 24 tapping machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l)(vi) because the processes are vented internally via an air pollution control devices (APCD), 5 Absolent Air Purifiers. 4 Absolents replaced 3 Smog-Hogs in 2011; one last remaining Smog-Hog is also replaced by November 2014. The filters are present to control oil mist. In spite of Absolent Air Purifiers, the plant floors are slippery due to oil mist deposition causing slip-and-fall hazard. Each Absolent is equipped with 3 Cartridge Filters. The filters are inspected on an annual basis and replaced as needed based upon pressured drop. Each Absolent is equipped with three pressure drop (ΔP) measurement gauges to facilitate filter replacement decision. Based upon past experience, the filters last about two years depending upon usage and quantity of particulate oil mist emissions.

SS caps are washed using soapy water. Some caps are sent out for polishing.

Assembly machines (10) put caps on nuts. Six existing assembly machines were transferred to Troy facility. Six brand new assembly machines were bought and installed (2013 thru 2014).

Two 3'x4' parts cold-cleaners

There are two 3'x4' parts cold-cleaners. Cold-cleaners are 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.

Both FY2006 and FY2011 inspections revealed one of two cold-cleaners had a lid open. I asked Mr. Dean to ensure that lids were kept closed at all times

Two cold-cleaners are soaker type. To replace one of two machines transferred to Troy facility, MacLean bought one brand new machine and installed about 2014: Wel-Bilt parts-cleaner machine (No. 141223, 140 gallon capacity)

On Nov 13, 2014, mechanically assisted lid was open while idling. Also, the operating procedures were not posted.

I sent in 2005 to MacLean a copy of DEQ's "cold-cleaner operating procedures". Again, on November 13, 2014, I gave DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules. I asked the company to follow the common sense work practice in the procedures.

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

Degreasing solvent used is mineral spirits supplied by Cadillac Oil Corp. of Detroit (313-365-6200).

The solvent contains aliphatic hydrocarbons (98%). 100% VOC. Density = 6.560 pounds per gallon. VP = 2 mm Hg at 60 °F, Sp. Gravity = 0.790 at 68 °F, FP = 105 °F. BP = 315-398 °F. Auto-ignition = 535 °F. Flammability range = 1%v (LEL) – 6%v (UEL).

Conclusion

MacLean-Fogg is in compliance with air quality regulations and conditions of PTI exemptions (Rules 281, 285).

NAME J. S. McNeenahall DATE 11/24/2014 SUPERVISOR CTE