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

U6311039125535

FACILITY: TRW Automotive Research and Development		**SRN / ID:** U63110391
LOCATION: 24175 Research Drive, Farmington Hills		**DISTRICT:** Southeast Michigan
CITY: Farmington Hills		**COUNTY:** OAKLAND
CONTACT:		**ACTIVITY DATE:** 05/28/2014
STAFF: Iranna Konanahalli	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:**
SUBJECT: FY 2014 inspection of TRW Automotive ("TRW")		
RESOLVED COMPLAINTS:		

TRW Automotive Research and Development (U-63-11-0391; MCDS Misc-1359)
24175 Research Drive
Farmington Hills, Michigan 48335-2634

On April 26, 2012, I conducted a level 2 self-initiated inspection of TRW Automotive ("TRW") located at 24175 Research Drive, Farmington Hills, Michigan 48335-2634. 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) administrative rules.

The purpose of inspection is to confirm that new filter system is installed.

During the inspection, Mr. John Molina (Ph: 248-699-4302; Fax: 248-478-7241; Cell: 734-216-3465; e-mail: john.molina@trw.com), Facility Manager, assisted me.

About June 2013, Mr. Randy Rehil (Ph: 248-699-4302; Fax: 248-478-7241; Cell: 734-216-3465; e-mail: randy.rehil@trw.com), Facility Manager, retired. Mr. Molina replaced Mr. Rehil. Mr. Christopher Arai (Ph: 734-855-3342; fax: 734-855-3356; Cell: 734-536-1205; e-mail: chris.arai@trw.com), CHCM, HS&E Security Specialist, was not present.

At this Farmington Hills site, TRW conducts research and development, testing, administrative, sales and marketing activities. There is no manufacturing taking place. Software development and testing activities are also done here. The R&D, software development and testing pertain to air bag sensors, keyless entry systems (business reduced due to patent expiration), tire pressure, occupant sensing, temperature, RFI (Radio Frequency Interference), vision systems, etc.

There are many laboratories within this building:

1. Tire pressure sensing lab
2. Software lab for air bags
3. Electronics lab
4. Temperature and Environmental testing lab
5. Cyclonic corrosion lab (salt testing)
6. DV (Design Validation) level testing
7. PV (Production Validation) level testing
8. RF (Radio Frequency) testing
9. Salt bath testing

10. Crash sensing
11. Mechanical tesing
12. RFI, EMI labs
13. Dust testing
14. Temperature testing for TPMS
15. Algorithm lab
16. Failure analysis lab
17. Vision systems lab

287(b) paint spray booth

There is a paint booth in PV lab which uses only spray cans (small quantity). I asked Mr. Rehil to install filters on the booth as no filter was present during the FY2011 inspection. The booth is used only for R&D activities; i.e. non-production booth. I confirmed in April 2012 that newly designed filter system with pleated filters is installed (Oct 2011).

I asked Mr. Molina to install the filters such that they fit, at all times, snugly without gaps and holes. During FY 2014 inspection, the filters were installed properly so that there is no paint overspray property damage.

A glass door is installed on the booth so that the booth can be kept closed air-tight when not in use.

The booth is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1287(b).

Dust Testing: One room with two chambers.

One dust testing room consisting of two dust testing chambers is present. The room is equipped and enclosed with see-through glass windows. Electronic circuits and devices are tested in a dust chamber. Portland cement, Arizona, sand, etc. dust are used. When dust settles, completed test devices are removed. Each chamber is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 because it is a closed system without emissions to outside ambient air.

The chambers (each 5 ft * 5 ft * 5 ft blue box) are self-contained and are located in 10 ft * 10 ft * 10 ft room. A blower's compressed air creates a cloud of dust in the chamber. Various types of dust are used (e.g. Portland cement, Arizona dust, sands of different Taylor Screen sizes, etc.

Neither the chamber nor the test room exhausts to outside ambient air. The dust is recycled for reuse in further experiments / tests.

Conclusion

I did not find any compliance problems with TRW. This is a research and development and testing facility.

NAME [signature] DATE 06/17/2014 SUPERVISOR CTE