N6962
MANILA

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N696232415

FACILITY: Ricardo Inc.		**SRN / ID:** N6962
LOCATION: 40000 Ricardo Drive, VAN BUREN TWP		**DISTRICT:** Detroit
CITY: VAN BUREN TWP		**COUNTY:** WAYNE
CONTACT: Craig Assenmacher , Engineering Operations Manager Powertrain		**ACTIVITY DATE:** 12/03/2015
STAFF: Jill Zimmerman	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION	:	December 3, 2015
TIME OF INSPECTION	:	10:30 am
NAICS CODE	:	541330
EPA POLLUTANT CLASS	:	VOC, CO, NOx
INSPECTED BY	:	Jill Zimmerman
PERSONNEL PRESENT	:	Craig Assenmacher, Engineer Manager, Powertrain Development
FACILITY PHONE NUMBER	:	734-394-3712
FACILITY FAX NUMBER	:	734-397-6677

FACILITY BACKGROUND
Ricardo operates eleven engine test cells. These engines are capable of operate on gasoline, diesel or compressed natural gas. The facility operates two shifts per day, five days per week based on a need from the customers.

PERSONAL PROTECTION EQUIPMENT
The personal protection equipment required to inspect this facility is safety glasses and steel toe shoes.

COMPLAINT/COMPLIANCE HISTORY
No complaints have been received regarding this facility. No VNs have been issued to this facility since at least the last inspection.

OUTSTANDING VNs
No VNs have been issued since at least the last time that this facility was inspected.

PROCESS EQUIPMENT AND CONTROLS
Each engine is equipped with a catalytic convertor to control emissions. Each test cell operates one of the engines to be tested on a dynamometer. The test is controlled in the control room by the technician based on the test protocol.

INSPECTION NARRATIVE
I arrived at the facility on Friday November 13, 2015 at 1:15 pm, and met with Mr. Ted Brynes. I was told that the person who handles the daily operations and maintains the records was out of the office for the next week. I choose to return to the facility at a later date when I could meet with the employee who could best answer any of my questions.

On Thursday December 3, 2015 at 10:45 am I arrived at the facility and met with Mr. Craig Assenmacher. Mr. Assenmaher stated that there have not been any major changes to the facility since the last inspection. The facility is currently permitted to uses gasoline, diesel or compressed natural gas in the engine test cells. On August 19 and 20, 2014 the facility preformed a stack test using both gasoline and diesel fuels. The facility has not yet preformed

a stack test using compressed natural gas because the facility has not had any work that uses compressed natural gas.

Fuel usage records are kept and recorded weekly, with the data being entered into a spreadsheet to track fuel usage as well as emissions. These calculations are then used to for the annual emissions reporting requirements. A sample of these records is attached to this report. The actual records were reviewed during the onsite inspection. Each time the facility receives a fuel supply, the facility sends a sample to be tested. Records of the results from these tests are maintained onsite and were reviewed during the onsite inspection.

The facility has four cold cleaner units onsite. None of these units are heated. Each of these units is maintained by Safety Kleen.

After we discussed the process of the facility, Mr. Assenmacher and I walked through the facility. A spin test was being performed in test cell 5. Test cell 7 is not currently being used, but the facility wishes to maintain this cell for possible future work. Test cells 1, 4, and 8 through 11 are used as AC dynamometers. Test cells 2 and 3 are used as eddy current test cells.

During the past year, the facility has replaced four mufflers on the roof related to the test cells.

APPLICABLE RULES/PERMIT CONDITIONS

The facility is currently operating under Title V permit MI-ROP-N6962-2010. The facility has submitted a permit renewal application on September 14, 2014.

Source-wide conditions – NA – The facility is required to comply with MACT CCCCCC. However, AQD has not been delegated the authority to enforce this MACT.

EU-ROLLCELL – NA – This equipment was never installed.

FG-TESTCELLS – This flexible group contains twelve compression and spark-ignited engine dynamometer test cells and one temporary cold start module. The emission units included in this group are EU-TESTCELL-01, EU-TESTCELL-02, EU-TESTCELL-03, EU-TESTCELL-04, EU-TESTCELL-05A & B, EU-TESTCELL-06, EU-TESTCELL-07, EU-TESTCELL-08, EU-TESTCELL-09, EU-TESTCELL-10, EUTESTCELL-11 and EU-TCS.

I. Emission Limits – Based on the values reported in MAERS for 2014
   1. NO_x – Compliance – The facility reported emitting 3.55 tons during the past twelve months, which is less than the permit limit of 34.5 TPY.
   2. CO – Compliance – The facility reported emitting 8.04 tons during the past twelve months, which is less than the permit limit of 74.6 TPY.
   3. PM_{10} – Compliance – The facility reported emitting 0.24 tons during the past twelve months, which is less than the permit limit of 7.48 TPY.
   4. SO_2 – Compliance – The facility reported emitting 0.22 tons during the past twelve months, which is less than the permit limit of 6.94 TPY.
   5. VOC – Compliance – The facility reported emitting 1.97 tons during the past twelve months, which is less than the permit limit of 21.7 TPY.

II. Material Limits
   1. Fuel: Compression ignited – Compliance – The facility reported using 8,020 gallons of diesel fuel during the past twelve months, which is less than the permit limit of 325,000 gallons per year.

2. Fuel: Spark-ignited – Compliance – The facility reported using 30,861 gallons of gasoline fuel during the past twelve months, which is less than the permit limit of 185,000 gallons per year.

III. Process / Operational Restrictions – NA -- During tests run on EU-TCS, the facility is required to operate with a properly functioning catalytic converter. During the onsite inspection, I did not observe a test being run in this testing cell.

IV. Design / Equipment Parameters – NA

V. Testing / Sampling – A stack test was performed on August 19, 2014 and August 20, 2014 to verify that the emission rates of CO and NOx. The results of this test were determined to be acceptable.

VI. Monitoring / Recordkeeping
1. Compliance – All emission calculations are completed and updated on a weekly basis. A sample of the record calculation from November 2015 is attached to this report.
2. Compliance – The facility tests each fuel delivery to verify the reference grade. Fuel usage records are completed daily. Emissions are calculated on a weekly basis.

VII. Reporting
1. NA – No deviations occurred during at least the past 24 months.
2. Compliance – The semiannual deviation reports have been received on March 14, 2014, September 11, 2014, March 6, 2015 and September 15, 2015. These reports were received on time and no deviations were reported.
3. Compliance – The annual deviation reports have been received on March 14, 2014 and March 6, 2015. These reports were received on time and no deviations were reported.
4. NA – No new equipment has been installed since the last inspection.

VIII. Stack / Vent Restrictions – Compliance – No changes have been made to the stacks since the stacks were installed.

IX. Other Requirements – NA – No change in land use has occurred for this property.

FGCOLDCLEANERS – Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281 (h) or Rule 285 (r)(iv). This flexible group includes EU-COLDCLEANER-01, EU-COLDCLEANER-02, EU-COLDCLEANER-03 and EU-COLDCLEANER-04

I. Emission Limits – NA

II. Material Limits – Compliance – All the cold cleaners are maintained by Safety Kleen and use acceptable solvents.

III. Process / Operational Restrictions
1. Undetermined – No parts were being cleaned during the onsite inspection
2. Compliance – All cold cleaners are routinely maintained by Safety Kleen.

IV. Design / Equipment Parameters – Compliance – All of the cold cleaners met these design parameters. All units were covered during the onsite inspection.

V. Testing / Sampling – NA

VI. Monitoring / Recordkeeping – Compliance – None of the cold cleaner units are heated so there are no required records. All cold cleaner units have identification information maintained onsite.

VII. Reporting
1. Compliance – No deviations have been reported in at least the past 24 months.
2. Compliance – The semiannual deviation reports have been received on March 14, 2014, September 11, 2014, March 6, 2015 and September 15, 2015. These reports were received on time and no deviations were reported.

3. Compliance – The annual deviation reports have been received on March 14, 2014 and March 6, 2015. These reports were received on time and no deviations were reported.

VIII. Stack / Vent Restrictions – NA

IX. Other Requirements – NA

On March 5, 2013 the facility was issued PTI 370-08B for the ability to use compressed natural gas in the test engines. The facility has not yet used compressed natural gas in any test engines. Therefore this permit was not evaluated at this time. This permit should not be voided because the equipment has been installed, and the permit was to allow the use of a new fuel source.

This facility is a true minor source for hazardous air pollutants (HAPs), which was determined during the permitting process for permit 370-08B. Therefore this source is not subject to MACT PPPPP.

The cold cleaner units use a naphtha-based solvent, which meets the Rule 707(2) requirements to have a Reid vapor pressure of less than 0.6 psia. These units are exempt from Rule 201 under Rule 281 (h).These units are not subject to MACT T.

MAERS REPORT REVIEW

MAERS was received on March 6, 2015 and was reviewed by me on May 31, 2015. No errors were found and all of the emissions appear to have been reported accurately.

FINAL COMPLIANCE DETERMINATION

Ricardo appears to be operating in compliance with all state and federal requirements, as well as all conditions of the ROP and any other permits. MAERS was submitted on time and appears to have been reported accurately.

NAME _____ DATE 12/22/15 SUPERVISOR JK