

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

FY 2014 Sched. Insp.

N112726663

FACILITY: DENSO INTERNATIONAL AMERICA INC		SRN / ID: N1127
LOCATION: 24777 DENSO DR, SOUTHFIELD		DISTRICT: Southeast Michigan
CITY: SOUTHFIELD		COUNTY: OAKLAND
CONTACT: <i>JK</i>		ACTIVITY DATE: 08/27/2014
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2014 level 2 scheduled annual inspection of Denso International America, Inc.		
RESOLVED COMPLAINTS:		

Efile: N1127 - SAR - 2014 08 27

Denso International America, Inc. (N1127)
Fka Nippondeso Sales, Inc.
24777 Denso Drive
Southfield, Michigan 48033-5244

NAIC: 541380

ROP & MACT Synthetic Minor PTI No. 452-85B

PTI Mod: PTI No. 452-85 dated June 11, 1985 → PTI No. 452-85A dated Oct 11, 2011 (ROP opt-out as result of Apr 19, 2011, VN) and PTI No. 452-85A → PTI No. 452-85B dated Sep 13, 2012 (like-for-like [Cell1500 hp dyno] replacement)

PTI Voids: PTI Nos. 452-85 dated Feb 19, 1988 (voided on Oct 11, 2011) and 452-85A dated October 11, 2011 (voided on Sept 13, 2012)

Emergency generators (3) may be subject to Area Source NESHAP / MACT ZZZZ or 4 Z, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines / Final rule (Page 6674 Federal Register / Vol. 78, No. 20 / Wednesday, January 30, 2013 / Rules and Regulations / Final rule.). AQD has decided not to take delegation of these standards and therefore no attempt has been made to evaluate the Denso's compliance with NESHAP / MACT 4 Z.

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

One (2006 installed) of three emergency generators is subject to NSPS 4I for generators: NSPS IIII or 4I, New Source Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 39154 Federal Register / Vol. 71, No. 132 / Tuesday, July 11, 2006 / Rules and Regulations / Final Rule.

One of three CI RICE Diesel Generators is subject to NSPS 4I based upon manufacture date (on or after April 1, 2006).

On July 30 and August 27, 2014, I conducted a level-2 **scheduled** annual inspection of Denso International America, Inc. ("Denso") located at 24777 Denso Drive, Southfield,

Michigan 48034-5244. 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; and the ROP opt-out permit.

During the inspection, Mr. Gary Godin (Ph: 248-372-8239; fax: NA; Cell: 248-789-6597; e-mail: Gary_Godin @denso-diam.com; Mail Code: 4330), Senior Environmental Engineer, Ms. Kate Darga (Ph: 248-372-8392; fax: NA; Cell: 248-721-0897; E-mail: Kathryn_darga @denso-diam.com), Environmental Safety and Health Specialist, assisted me.

Mr. Robert F. Townsend (Ph: 248-372-8237; fax: 248-213-2381; Cell: 248-521-4896; e-mail: Robert_townsend@denso-diam.com), Director of Environmental, Safety and Health, did not participate during FY 2014 inspection.

Mark Poll (Ph: 248-372-8232; fax: 248-213-2551; E-mail: Mark_Poll @denso-diam.com), Environmental Safety and Health Specialist, separated about 2013.

Ms. M. Suzanne Anderson (Ph: 248-372-8693; Fax: 248-213-2551; E-mail: Suzanne_anderson@denso-diam.com; Mail Code: 4300), Corporate Counsel, was also present.

Mr. Jim Laney, Manager of Environmental, Safety and Health, transferred to Marysville, Tennessee (near Knoxville). Being US HQ, Mr. Laney is still associated with Southfield Office.

Denso International America (Denso) has, at Southfield, 16.5-acres R & D campus. There are three buildings with 244,000 square feet office space. Of 244,000 square feet total office space, 123,000 sq. ft. is dedicated to vehicle component development business. About 2014, Denso purchased two new buildings (20 & 40) that are used only as office space.

At the Southfield campus, Denso conducts research and development (R & D), testing, administrative, sales and marketing and corporate office activities. Manufacturing is not taking place. The Technical Center operations include engineering, design, prototype, testing and calibration of automotive components including emissions controls, fuel systems, air intake systems, ignition systems, alternators, air-conditioning systems, relays, controls, etc.

PTI No. 452-85B: two chambers (EU-TestCell1 and EU-TestCell2)

On September 13, 2012 AQD approved PTI No. 452-85B for like-for-like replacement of existing dynamometer (Cell1). However, replacement dyno has upgraded software and monitoring capability. All PTI No. 452-85A conditions are transferred without change.

Two chambers (Cell1 500 max hp and Cell2 250 max hp: the max power engine can handle) of engine dynos consisting of one engine per chamber are installed about 1988 per Permit-to-Install No. 452-85 (modification PTI No. 452-85 → PTI No. 452-85A added ROP opt-out conditions). Only requirement of this permit is that it limits dynos to zero percent opacity. The test cells do not have significant visible emissions potential. During the inspection, dynos were idled. Diesel testing is not done anymore.

Cell-2 (EU-TESTCELL2 installed 1988): Two 250 hp 800-rpm engines are present. However, only one engine can run anytime. Catalyst may or may not be used depending upon the test. This cell is used for testing aging analysis of the oxygen sensors. Durability, ageing of fuel injection and oxygen sensors are also done. Nothing changed in Cell2 during 2012-14.

7. NSPS Notification not required

Emergency engines:

1. 100 hours per year for maintenance checks and readiness testing
2. 50 hours per year for non-emergency (non-income generating)
3. No hours limit for genuine emergency

CY 2010 Exhaust Modification

Per FY2011 inspection, Denso increased cross sectional area of the test cell's exhaust system and increased fan speed. These actions for increasing exhaust air flow (cfm) will allow better dispersion of the pollutants and the process itself is not modified at this time (CY 2010). Hence, the exhaust system modification is not subject to Rule 336.1201 permit modification. Therefore, it is not necessary to hire a consult to submit a permit modification application. The CY2010 PTI (Rule 336.1201) inquires pertained to this project. The process modification that may happen may require a permit revision. The exhaust system was upgraded in May 2010 by increasing fan speed from 1,050 cfm to 10,000 cfm and diameter from 10 inches to 24 inches.

Vehicle prep

Vehicle prep (preparation) areas are present, where the test vehicles (road-worthy, emission-control-equipped vehicles with manufacturer's plates [M-plates]) are prepared for testing at chassis dynamometers. These vehicles are not put into commerce.

PTI Mod (PTI No. 452-85 → PTI No. 452-85A), engine test cells and Apr 19, 2011, Violation Notice

April 19, 2011, Violation Notice: Please refer to April 19, 2011, Violation Notice. VN was issued for failure to obtain Permit-to-Install for two start-stop test engines installed in the emissions chamber (emissions tests are not done anymore) pursuant to Rule 336.1201.

AQD received VN response letters dated May 10, June 29, July 19 and October 28, 2011. In addition, on January 11, 2012, AQD and Denso personnel along with a consultant (David M. Yanochko of Fishbeck 248-324-2121) met to discuss start-stop engines and PTI exemptions.

AQD issued the violation notice for installing start-stop engines without a permit pursuant to Rule 336.1201. Subsequently, AQD allowed installation of engine test cells pursuant to Rule 336.1285(g) subject to Rule 278 restrictions with attendant record-keeping. The opt-out permit may not be used to satisfy Rule 278 restrictions. Separate Rule 278 records must be kept. Further, AQD will not be developing General Permit-to-Install for engine test cells at this time.

Denso is using car / truck idling vehicle emission factors to calculate emissions pursuant to Emission Facts EPA-420-F-98-014 dated April 1998. Hence, equivalent or better than motor

FYI: April 19, 2011, Violation Notice.

April 19, 2011

Mr. Robert F. Townsend
 Director of Environmental, Safety and Health
 Denso International America, Inc.
 24777 Denso Drive
 Southfield, Michigan 48033-5244

SRN: N1127, Oakland (63) County

Dear Townsend:

VIOLATION NOTICE

On April 4, 2011, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Denso International America, Inc. (Denso) located at 24777 Denso Drive, Southfield, Michigan. The purpose of this inspection was to determine Denso's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), and the administrative rules.

During the inspection, staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
Two starter test engines in emissions chamber.	Rule 336.1201 (Permit-to-Install)	Denso installed this process equipment without obtaining a Permit-to-install pursuant to Rule 336.1201. ^θ
^θ As we discussed Permit-to-Install No. 452-85 dated Feb 19, 1988, may be revised (PTI No. 452-85 → PTI No. 452-85A) to incorporate this unpermitted process equipment and to become synthetic minor source for federal Title V or Michigan Renewable Operating Permit (ROP) program. You may include the chassis dynamometers, the diesel generators, etc., in the ROP opt-out permit so that periodic Potential-to-Emit calculations are deemed unnecessary.		

During this inspection, it was noted that Denso had installed and/or commenced operation of unpermitted process equipment (two starter test engines in emissions chamber) at this facility. The AQD staff advised Denso on April 4, 2011, that this is a violation of Act 451, Rule 201.

A program for compliance may include a completed PTI application for the above process equipment. An application form is available at the following website:

http://www.deq.state.mi.us/aps/nsr_information.shtml#AUP

Be advised that Rule 201 requires that a permit be obtained prior to installation, construction, operation, reconstruction, relocation, or alteration of any process or process equipment which may be a source of an air contaminant.

Please initiate actions necessary to correct the cited violation and submit a written response

to this Violation Notice by May 10, 2011 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violation occurred; an explanation of the causes and duration of the violation; whether the violation is ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violation and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If Denso believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violation cited above and for the cooperation that was extended to me during my inspection of Denso. If you have any questions regarding the or the actions necessary to bring this facility into compliance, please contact me at the number listed below or the DEQ, Air Quality Division, Southeast Michigan District Office, 27700 Donald Court, Warren, Michigan 48092-2793.

Sincerely,

Iranna Konanahalli
Sr. Environmental Engineer
Air Quality Division
586-753-3741

ISK / vll

- cc: Ms. Teresa Seidel, DEQ
- Mr. Thomas Hess, DEQ
- Mr. Christopher Ethridge, DEQ
- Mr. Steve Weis, DEQ

NAME Iranna Konanahalli DATE 08/28/2014 SUPERVISOR CJE