

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

P044524565

FACILITY: ARAMCO SERVICES COMPANY		SRN / ID: P0445
LOCATION: 46535 PEARY COURT, NOVI		DISTRICT: Southeast Michigan
CITY: NOVI		COUNTY: OAKLAND
CONTACT: Burke Davis , Business Manager		ACTIVITY DATE: 03/18/2014
STAFF: Erik Gurshaw	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2014 FCE Inspection		
RESOLVED COMPLAINTS:		

SRN: P0445

COMPANY: Aramco Services Company

COMPANY ADDRESS: 46535 Peary Ct.; Novi, MI 48377

PURPOSE OF INSPECTION: Targeted

CONTACT PERSON: Mr. Burke Davis, Business Manager (Ph: 248-896-3939; Cell: 734-274-0624; E-mail: burke.davis@aramcoservices.com)

COMPANY PHONE NUMBER: 248-896-3939

On March 18, 2014, AQD staff, Erik Gurshaw and Sam Liveson conducted a targeted, unannounced inspection at Aramco Services Company located at 46535 Peary Ct. in Novi, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) Rules; and the conditions of Permit-To-Install (PTI) Number 81-13 for 4 dynamometer test cells without emission controls.

Upon arriving at the site, AQD staff introduced themselves and stated the purpose of the visit to Mr. Burke Davis, Business Manager. Mr. Vincent Costanzo, Research Scientist in Engine & Fuels Technology (Ph: 248-896-3883; Cell: 248-234-1317; E-mail: vincent.costanzo@aramcoservices.com), and Mr. David Cleary, Research Center Leader (Ph: 248-896-3870; Cell: 248-425-8619; E-mail: david.cleary@aramcoservices.com), assisted Mr. Burke on the inspection. Mr. Burke indicated that Aramco Services Company operates from Monday through Friday from 7:00 AM until 4:30 PM and employs 9 people. Aramco Services Company is a research, design, and development facility for production and prototype engines for the automotive industry. The company is conducting research to help reduce emissions and to improve the fuel economy of engines. Research on passenger fleet engines will be conducted in the dynamometer test cells once the facility begins operating, but research is scheduled to be conducted on all vehicle-based engines soon thereafter. The facility will receive engines from various engine manufactures and conduct research and testing on the engines when received. Mr. Burke did not feel comfortable revealing the names of the manufacturers of these engines. Once research and testing has taken place on the engines, they will either be discarded or put into a vehicle. If installed in a vehicle, further testing will take place using the facility's chassis dynamometer test cell.

Two of the four dynamometer test cells permitted at the facility had been installed at the time of the inspection (EUTESTCELL1 and EUTESTCELL2). Trial operation of these test cells is scheduled to begin in September or October of this year. AQD staff reminded Mr. Burke that the company's PTI requires it to notify the AQD within 30 days after the initiation of trial operation. The two remaining permitted test cells (EUTESTCELL3 and EUTESTCELL4) are scheduled to be installed later this year. In addition to the dynamometer test cells, the facility has the following equipment: 1 chassis dynamometer; 1 500 gallon gasoline storage tank; 1 500 gallon diesel storage tank; 3 natural gas-fired HARSO Industrial/Patterson-Kelly Company boilers; 1 natural gas-fired Generac emergency generator; 1 Graymills Biomatic parts washer serviced by Safety-Kleen; 1 portable MIG welder; 2 Miller Dynasty welding stations; 1 lathe; 1 drill press; 1 milling press; 1 belt sander; 1 horizontal chop saw; 1 grinder; and a chemistry lab. The chassis dynamometer is not subject to the provisions of the Clean Air Act since it tests mobile sources of air emissions. The gasoline and diesel storage tanks are

subject to MACT Subpart CCCCCC for Gasoline Dispensing Facilities, but are exempt from State of Michigan air permitting requirements pursuant Rule 284(g)(i). Aramco Services Company is an area source of hazardous air pollutants (HAPs) emissions and the AQD has not accepted delegation for area source MACT Subpart CCCCCC. The three boilers are used to heat water for building heating purposes. They were manufactured in 2013 and have a maximum heat input rate of 846,000 BTU/hour. Therefore, they are exempt from PTI requirements pursuant Rule 282(b)(i). The Generac emergency generator was manufactured in 2013 and is rated at 25 kW (33.5 Hp). This generator is subject to MACT Subpart ZZZZ for Reciprocating Internal Combustion Engines (RICE), but the AQD has not accepted delegation for RICE engines subject to this subpart at area sources of HAPs. The Graymills Biomatic parts washer appeared that it was being operated and maintained properly. The parts washer uses ArmaKleen 4 in 1 Cleaning Solution manufactured by AmraKleen, but the parts washer is serviced by Safety-Kleen. The MSDS sheet for the parts washing solvent indicates that it contains no HAPs and that its VOC content is 1.75 lbs/gallon. The solvent is diluted with soap and water so that it contains 0.088 lbs/gallon of VOC when it is being used in the parts washer, however. The lathe, drill press, milling press, belt sander, horizontal chop saw, and grinder are used to fabricate or modify parts needed for engine testing. All of these machines vent to the general plant environment and are exempt from PTI requirements pursuant Rule 285(l)(vi)(B). The welding machines are exempt from permitting requirements pursuant Rule 285(i). The company has not used the chemistry lab and was unsure of how it will be used in the future, but laboratory equipment is exempt from permitting requirements pursuant Rule 283(b).

Based on this inspection, it was determined that Aramco Services Company has not initiated operation of its dynamometer test cells and that the other process equipment at the facility is either exempt from PTI requirements or subject to area source MACTs of which the AQD has not accepted delegation. The MSDS sheet for the parts washing cleaning solvent is attached to this report.

NAME Erik Dushow

DATE 3/20/14

SUPERVISOR CTE