

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

N715627714

FACILITY: DETROIT WATER & SEWERAGE DEPT -YPSI BOOSTER		SRN / ID: N7156
LOCATION: 361 RAWSONVILLE RD, YPSILANTI		DISTRICT: Jackson
CITY: YPSILANTI		COUNTY: WASHTENAW
CONTACT: Biren Saparia , Process Control System Manager		ACTIVITY DATE: 11/10/2014
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Complete scheduled inspection, existing minor source. One Portable, R201 exempt diesel emergency generator now. Proposed permanent diesel generator requiring Air Use Permit. Area Source MACT Subpart ZZZZ subject.		
RESOLVED COMPLAINTS:		

**CONTACT: Mr. Biren Saparia, Process Control System Manager, DWSD, (313) 267-8977, [saparia@dwsd.org](mailto:saparia@dwsd.org)**

On November 10, 2014, the Michigan Department of Environmental Quality, Air Quality Division (DEQ-AQD) conducted a complete scheduled inspection of the above facility. The inspection was announced shortly prior to this date in order to access the site. This is an unmanned DWSD booster station in Ypsilanti, located at 361 Rawsonville Rd, on the border between Washtenaw and Wayne counties. Water is pumped through this site from intakes at Allen Park and Port Huron to Ypsilanti Community Utilities Authority. Three pumps increase the water pressure more than double what it comes in at.

The purpose of the inspection is to determine the facility's compliance status with the State Act 451, Part 55, Air Pollution Control regulations, the administrative rules, and any applicable federal standards. The DWSD Ypsilanti Station previously had an installed and operated exempt diesel fired generator (Rule 282 (b)(ii)) as of the prior AQD inspection conducted in June 2009. In 2002 they had obtained a PTI No. 156-02 for a Catepillar 3516B (1825kW) diesel fired generator to replace the 30 year old existing generator D349-V16 rated 750 kW. This permit was later voided when the 18 months expired from time of permit issuance and the equipment was never installed. A letter from the Director at the time, Victor Mercado is in their AQD file. Following my inspection in 2009, I recommended keeping the file open for at least one or two years due to the potential they may add a new larger diesel engine requiring a permit. It was noted at the time that there had been new federal regulations related to diesel-fired engines and it was unknown at the time whether these would apply.

The Ypsilanti station is set back from Ecorse road down a dirt driveway. I met with Biren Saparia, Process Control System Manager, and Tom Hall, Maintenance Supervisor, at the site and they accompanied me during the inspection. Upon my arrival, I entered the site via a chain link, automatic secure gate. I introduced myself, provided identification, and gave Biren a copy of the DEQ Brochure, Environmental Inspections, Rights and Responsibilities. The 2009 Diesel Generator previously observed is no longer at the facility and I observed that it has been replaced with a Portable Diesel Generator.

Per Tom, this temporary emergency diesel generator arrived Thursday, November 6, and was installed Friday, November 7 and DWSD is test running it today. I observed several other workers and vehicles at the site. The generator's purpose is to provide emergency power to at least one pump at the station during a power outage. I observed the generator was operating and is located outside in front of the main building. I observed that it is in a metal housing on a trailer.

During the inspection I informed Biren and Tom that there are federal standards that cover almost all reciprocating engine generators (RICE). These are the National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Major/Area Sources, 40 CFR Part 63, Subpart ZZZZ (referred to as Maximum Achievable Control Technology standards (MACT)), and the New Source Performance Standards (NSPS) 40 CFR 60, Subpart IIII and JJJJ. The only industrial RICE exemption from having applicable requirements under the RICE MACT is for Portable or Temporary engines. To qualify, the engine must be portable or transportable (has wheels, skid, dolly, trailer, or platform) and it can not be at one location more than 12 months. Biren agreed that their new portable engine will be able to qualify as portable. I requested Biren send me the engine specifications by Friday, November 14th in order to verify this, and its qualification for permit exemption under Act 451, Rule 201.

During the inspection I also observed a very large engine generator with two associated electric boxes on site. It did not appear to be installed or operational. This RICE was located at the back of the facility behind the former (now delapidated) pump station. Biren and Tom confirmed it is not installed and not operational because it is not in an appropriate location yet and a significant amount of work is necessary to prepare its proposed site on the old pump station footprint. The large RICE is also diesel-fired and would be the back-up or emergency unit for the entire pump station. There is a muffler and short stack on the roof of its metal container. I observed that the former or original pump station looked very old. The building has many openings to the elements and is rusty, including the pipes inside it. It obviously has not been operated or maintained in a long time. Biren said this RICE was permitted at their Oakwood Pump Station and that he had previously worked with AQD's Detroit Office staff Steve Weiss. I told Biren I would look for the permit and contact Steve however its relocation to a new site is considered a new installation and requires a new permit application be submitted.

Biren and Tom explained that the proposed project is to demolish the old pump station building and prepare the site to install the permanent back-up engine in that location. Biren estimates it will take at least about 1 year to do this. Biren explained that the Ypsilanti Booster Station never received a reliable back-up power source since Y2K. The portable diesel engine will be temporary until they can install a permanent back-up power source in case of emergency. They have two separate mains/branches into the station and each are powered separately by DTE. I went inside the current pump station with Biren and Tom to briefly observe the equipment. It appeared to be similar to what I remember seeing from the prior inspection.

During the 2009 inspection, the DWSD contact told me that DWSD was discussing plans to possibly relocate a larger diesel engine (he referenced a Cummins 2000 Cat.) from their Wayne County plant, in the Spring of 2010. He said the problem was that due to its size it will not fit in the location that the existing engine is in. The underground water pipes are also in this area. It appears DWSD would first need to demolish the former pump station building still on the site next to the current building and locate the new engine there. At that time I gave the DWSD contact a copy of the Permit to Install Exemption Handbook and informed him they will need to address the Air Use Permit to install requirements prior to relocating the new engine from the Wayne County site. It currently had a PTI according to him. He said he believed the appropriate DWSD staff are aware of the permitting process and he will pass on the information I gave him.

#### COMPLIANCE SUMMARY

All referenced correspondence is in the plant file attached to this MACES report. Following the inspection, I obtained a copy of the Active PTI No. 258-99B for SRN M4841, DWSD - Oakwood Pump Station. I contacted Steve Weiss, Detroit Office to investigate the prior PTI location and obtain information. He confirmed he has worked with Biren regarding facilities in their District. He sent me photos of the Oakwood generator from his inspection. He verified they have not received a request to VOID the permit or notice of the generator's removal from the permit location. Steve contacted me again later to inform me that he was contacted by Melvin Dacres, DWSD - Main WWTP, regarding the permit situation and Steve provided guidance and gave the person my direct contact information.

AQD determined it is appropriate to send an informational and notification letter to Biren, DWSD to document their relocation of the Oakwood RICE to the Ypsilanti Booster Station and the Rule 201 requirement that DWSD must apply for and obtain an approved PTI for the RICE at the Ypsilanti site prior to commencing construction and installation of the emission unit.

Following the inspection, Biren emailed the following portable generator specifications: Make: Caterpillar, Model 3412, 750 kW, 36 Volts, 1128 amps and Year 1998. It appears this CI-RICE qualifies for the Rule 285(g) <10 MMBTU/hr exemption from the requirement to obtain an Air Use Permit to Install.

My review of the PTI 258-99B for EUENGINE1 (the large diesel RICE): permit application indicates it commenced construction/installation at Oakwood on 7/1/1999, with completion on or about 10/1/1999. It is a Model 3516B diesel fuel-fired, capacity 1825 kW and a heat input of 18.31 MMBTU/hr. The permit contains a NOx emission limit of 39.95 tons per year per 12 month rolling time period (Emission factor noted as 0.2434 lbs NOx/gallon of fuel oil, based on 144,000 BTU per gallon).

On November 21, 2014, AQD sent a formal letter to DWSD documenting the permit situation, especially the potential Rule 201 situation if not permitted prior to installation at new location, and to document the

RICE location change. The letter identified AQD's observation, the active permit at the Oakwood Station, and the need for DWSD to apply for and obtain a new permit for the engine at the new Ypsilanti location.

DWSD Ypsilanti Booster Station appears to be in compliance at this time with Rule 201 as long as they do not commence installation of the permanent generator at the site. The permanent generator is subject to the requirement to obtain an Air Use Permit to Install due to its size. DWSD has been notified that they must apply for a new permit for the new location; they may reference its existing permit from the Oakwood site. The permanent engine generator is also subject to the RICE MACT Supart ZZZZ for Emergency Compression Ignition Engines, greater than 500 horsepower located at an Area Source of HAP, constructed before June 12, 2006. The portable generator is exempt from State and Federal regulation at this time.

NAME *Diana Kay Victor*

DATE *11/21/14*

SUPERVISOR *[Signature]*

