

P0077  
MAWILA

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

P007729119

FACILITY: Detroit International Bridge Co		SRN / ID: P0077
LOCATION: 3001 W Fort St, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Ken Carter , Superintendent		ACTIVITY DATE: 03/30/2015
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Backup generators with capacity less than 5 MW each		
RESOLVED COMPLAINTS:		

INSPECTED BY : Terseer Hemben, MDEQ

PERSONNEL PRESENT: Mr. Ken Carter (Superintendent)  
Kcarter@ambassadorbridge.com

FACILITY PHONE NUMBER : 313-989-0211 ext. 3061

FACILITY FAX : (586)-819-0412; Cell: 313-363-2868

DATES OF INSPECTION : 3/30/2015

SRN: P0077; Permit # 54-10

**Precis:** The inspection of DIBC facility was based on the following rules-

**Federal Rule-** 40 CFR 72, Potential Federal Rules to consider -40 CFR 52, NSPS IIII, NSPS JJJ, MACT ZZZZ

**State Rule-** R201, R205, R207, R219, R220, R224, R225, R301, R370, R702, R901 R912, R2001, R2003, R2004

**Address:** 2660 W. Fort Street, Detroit, MI 48216

**FACILITY BACKGROUND:** Detroit International Bridge Company

The Detroit International Bridge Company (DIBC) facility houses electric generators used for back-up power supply to the International Bridge connecting Detroit and Windsor (Canada). The Caterpillar brand generators provide power supply for maintaining steady system operations. The facility installed two generators each rated 2.0 megawatts. The generators use diesel oil for fuel. Practically, each generator is operated 2 hours per month on full load, and then run for 1 hour within the same month with no load. The purpose of running the engines with no load is to maintain frost/humidity free effects on moving parts and the machines' fuel lines. The purpose for using the generators was to make up for incidents of power failures or when a need for peak power demand arises for maintaining system operations. The DIBC power supply system receives steady electricity supply from 2 corporate power providing sources. Hence the generators are not regularly used. The fuel oil supply to the generators is drawn from underground storage tanks located outside the building and metered into the generators.

**Inspection Narrative**

I arrived at the facility at 1000 hours. Temperature at the hour was 46 F with wind speed 11.5 mph coming from the WNW and humidity 47%. Purpose of the visit was to conduct emissions control compliance inspection. I contacted Mr. Ken Carter (Superintendent) for admission to the site for the

compliance inspection. The manager admitted led me to the site through the gate and into the building. Mr. Carter escorted me around the property. We started the inspection process with a pre-inspection conference. Mr. Carter informed the facility did not make any modification to equipment or system, The DIBC facility is yet to complete installations of the remaining two generators. We went through the inspection agenda and set the time line for the Company to submit requested records to the AQD office. We concluded the meeting with a post-inspection conference. I requested operation records along with the generator specifications /manufacturer's manual and detail information concerning operations. I left the facility at 1110 hours.

**COMPLAINT/COMPLIANCE HISTORY:**

The DIBC facility has no past history of violations.

**OUTSTANDING CONSENT ORDERS:**

None

**OUTSTANDING LOV'S:**

None

**OPERATING SCHEDULE/PRODUCTION RATE:**

The DIBC supplements power during emergency power requirement period. The installation and operation of the generators was reviewed DEQ-AQD.

**PROCESS DESCRIPTION:**

As described in the facility background.

**EQUIPMENT AND PROCESS CONTROL:**

The equipment facility has 4 seats for 4 generators. However, 2 generators have been installed, and the 2 remaining seats are yet to be filled. The Generators were permitted under FG-ENGINES classification. There is no boiler installed at the facility.

**APPLICABLE RULES/PERMIT# 54-10 CONDITIONS:**

The inspection examined the record keeping and hygiene at the facility. DIBC was found to be:

1. In compliance - DIBC demonstrated there had not been any modification to any FG-ENGINES system or process at the facility in the last 24 months. Response from DIBC stated there had been no modifications to the FG-Engines system or process at the facility in the last 24months. [Attachment pg. # 1; Response# 1].
2. In compliance - DIBC demonstrated the emission of NOx in the FG-ENGINES system did not exceed 515 lb. /1000 gal year based on test method for engines [**SC. 1.1**]. Response from DIBC stated the emissions of NOx did not exceed the limit. Veeder Root fuel reports showed that the generators used less than 500 gallons from December 2010 through March 2015 (half quantity of 1000 gallons of fuel). The Load test eports completed by Caterpillar manufacturers supporting the assessment was submitted [Attachment pg. 5 & 16; Response# 2]. However, testing pursuant to SC 1.7, which AQD may request has not been done.

- 3. In compliance - DIBC demonstrated only the diesel fuel was used in firing the FG-ENGINES [SC. 1.2]. Response from DIBC stated only Diesel fuel was used in firing the FG-Engines. Visual inspection of engines, tanks and Veeder Root fuel management system was completed on site. The Michigan Cat load test confirmed the assessment [Attachment pg.8].**
- 4. In compliance – DIBC demonstrated if any electricity produced by the FG-ENGINES was sold to a utility power distribution system. If yes, confirm the maximum sulfur content of the fuel oil used does not exceed 0.050% by weight [SC. 1.3]. DIBC stated electricity produced by the FG-Engines was not sold to a utility power distribution system [Attachment pg. 2; Response# 4].**
- 5. In compliance – DIBC demonstrated the combined diesel fuel use for all units in FG-ENGINES did not exceed 136,000 gallons per a 12-month rolling time period as determined at the end of each calendar month [SC. 1.4]. Response from DIBC stated the combined diesel fuel use for all units in FG-Engines did not exceed 136,000 gallons per a 12 month rolling time period. Veeder Root fuel reports showed that less than 500 gallons of diesel fuel were used from December 2010 through March 2015 [Attachment pg. 5; Response# 5].**
- 6. In compliance – DIBC demonstrated the permittee did operate FG-ENGINES according to manufacturer's recommendations for safe and proper operations to minimize emissions during periods of start-up, shutdown and malfunction [SC. 1.5]. Response from DIBC stated permittee did operate FG-Engines according to manufacturer's recommendations for safe and proper operations to minimize emissions during periods of startup, shutdown and malfunction [Attachment pg. 5; Response# 6].**
- 7. In compliance – DIBC demonstrated the rating plates on the FG-ENGINES did not exceed 5 MW capacities [Verification of SC. 1.6]. DIBC stated the rating plates on FG-Engines did not exceed 5 MW capacities. Each FG-Engine was 2000 kW (2.0 MW) [Attachment pg. 6; Response# 7].**
- 8. In compliance – DIBC did not verify that the NOX emission limit (515 lbs. /1000 gallon) fuel used from one or more representative units of FG-ENGINES tested at owner's expense in accordance with Department requirements was performed and results submitted to the Department [SC. 1.7]. The AQD had not requested that verification be conducted as stipulated in SC. 1.1 method.**
- 9. In compliance - DBC demonstrated the permittee installed, calibrated, maintained and currently operates in a satisfactory manner the device to monitor and record fuel use for FG-ENGINES on a monthly basis [SC.1.8]. Records from DIBC stated the permittee installed, calibrated, maintained and operated in a satisfactory manner the device to monitor and record the fuel use for FG-Engines on a monthly basis consistent with Veeder Root reports [Attachment pg. 5 and 16; Response# 9].**
- 10. In compliance – DIBC demonstrated records of the date, duration, and description of any malfunction, any maintenance performed on FG-ENGINES were kept in a satisfactory manner**

[SC. 1.9]. DIBC stated no malfunction or technical maintenance was performed during the reporting period. Therefore there were no records of date, duration, and description of malfunction or maintenance performed during the reporting period. [Attachment pg. 12 through 25, Response# 10].

**11. In compliance - DIBC demonstrated permittee kept in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FG-ENGINES [SC. 1.11]. DIBC responded to this condition by referencing the fuel records presented through recordkeeping of Ullage calculations [Attachment pg. # 5; Response # 11].**

**12. In compliance – DIBC and Inspector confirmed all exhaust gases were discharged unobstructed vertically upwards to the ambient air [Verification of SC. 1.12]. Visual inspection of ducts connecting to stacks, and stack heights confirmed [Response# 12. Attachment pg. 7 & 9].**

#### Inspection Areas of Focus:

1. Stacks/Main stack opacity -the 2 stacks stood above the roof of the building. There was no discharge activities observed from the stacks.
2. The small container of No. 2 fuel oil was stored in an underground tank located outside the building. Metering and delivery device was located inside the building for feeding fuel into generators. A demonstration of volume and oil pressure reading was performed to gauge the oil properties and quantity dispensed instantaneously. DIBC did not need a permit for the storage fuel tank.
3. Record keeping was satisfactory. The facility operator was able to access most records electronically in the control room. Hard copies of records were located in file cabinet. Electronic data acquisition instrument and user-friendly software indicated evidence of satisfactory record keeping. DIBC was determined to be in compliance.

#### APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS

This facility does not have nor is in need of fugitive dust plan.

#### FINAL COMPLAINT DETERMINATION

The DIBC facility was inspected as scheduled. Records of the Company operations were available to DEQ-AQD for review. The AQD determined DIBC operated the facility in compliance with the General permit# 54-10 requirements during the reporting period. However, further level of compliance with federal regulations supporting overall permit conditions will be assessed during the next inspection cycle.

NAME                     jlr                    

DATE                     9/8/15                    

SUPERVISOR                     JK