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

B279526184

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| **FACILITY:** DTE - Electric Company COLFAX PEAKERS | | **SRN / ID:** B2795 |
| **LOCATION:** 4025 GREGORY, FOWLERVILLE | | **DISTRICT:** Lansing |
| **CITY:** FOWLERVILLE | | **COUNTY:** LIVINGSTON |
| **CONTACT:** R. C. (Chuck) Larlham , Principal Environmental Engineer | | **ACTIVITY DATE:** 07/29/2014 |
| **STAFF:** Brian Culham | **COMPLIANCE STATUS:** Compliance | **SOURCE CLASS:** MAJOR |
| **SUBJECT:** This was an announced scheduled inspection for the purpose of determining compliance with the Renewable Operating Permit (ROP) MI-ROP-B2795-2011. It was also my first time at this location. | | |
| **RESOLVED COMPLAINTS:** | | |

R. C. (Chuck) Larlham, Principal Environmental Engineer, larlhamr@dteenergy.com

This was an announced scheduled inspection for the purpose of determining compliance with the Renewable Operating Permit (ROP) MI-ROP-B2795-2011. It was also my first time at this location.

Colfax Station is a Peaking Plant equipped with 5 diesel generators. The generators are powered by EMD MP45 diesel fueled compression ignition reciprocating internal combustion engines (RICE). The units are 20 cylinder units rated at 2.75 MW or about 3600 HP. DCL DC69.5-22 catalytic converters were installed in 2012-2013. The engines are electric start and are capable of being remotely started from DTE headquarters. An onsite operator is not required.

Colfax Station is considered a major 40 CFR Part 70 source due to potential emissions of Nitrogen Oxides exceeding 100 tons. MI-ROP-B2795-2011 was issued September 1, 2011. Certification of compliance was received on March 12, 2014 from Nader Rajabian.

The Prevention of Significant Deterioration (PSD) (40 CFR 52.21) regulations and Rule 336.1220 for Major Offset Sources do not apply to this facility because the equipment was installed prior to the effective dates of those regulations.

Phillis Rynne has replaced Jim Herrmann as Staff Engineer. P. Rynne submitted a copy of the Potential to Emit (PTE) for HAP emissions completed for the Colfax Station as I had requested. Benzene is the HAP of concern with a PTE of 0.5 tpy. Combined HAPs where reported to have a PTE of 1.1 tpy. Colfax is a True Minor Source of HAP and therefore considered a Part 63 Area Source.

Colfax Station is subject to parts of 40 CFR 63 subpart ZZZZ. Because Colfax Station is an Area Source and the requirements are not included in the ROP, AQD does not presently have administrative authority over subpart ZZZZ's applicable requirements. However; a copy of a compliance test report was received July 9, 2013. A notification of Compliance Status was included with the report.

It is my understanding that each RICE at Colfax is considered a non-emergency, non-black start, stationary CI RICE >500 HP. To comply with subpart ZZZZ; DTE chose to reduce CO emissions by 70 percent or more. DTE installed DCL DC69.5-22 catalytic converters to each engine unit to accomplish this. Test results identify that all 5 engines exceeded 70% reduction.

Because there was no increase in emissions associated with the installation of the catalytic convertors, Rule 285(e) exempted the installation of the pollution control devices from the need to obtain a Rule 201 permit to install.

The DTE Colfax Station is located on the west side of Fowlerville. The surrounding area is an industrial park with almost no residences. Some agricultural land is located to the south and further west.

DTE requires 48 hour notification to arrange for staff to be available at an unmanned substation prior to an inspection. Flame retardant clothing is required.

| No. | Emission Unit or Flexible Group | Description | Permit Number or Exemption | Comp. Status |
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|---|---|---|---|---|
| 1 | FG-PEAKERS | 5- EMD MP45 diesel fueled, compression ignition, non-emergency, non-black start, stationary, reciprocating internal combustion engines (RICE). The units are 20 cylinder units rated at 2.75 MW or about 3600 HP. | MI-ROP-B2795-2011<br>40 CFR 63 subpart ZZZZ (area source) | C<br>U |
| 2 | EU-Fuel Storage | A horizontal tank used for storing No.1 or No.2 diesel | Rule 284(d) | C |

I arrived at the site at 7:45 am. I drove around the area to determine what other sources or sensitive receptors may be nearby. I did not enter the site but could easily observe the generators and associated fuel storage. I estimated the engines to be around 3,000 HP in size. There were no additional emission units installed at the site. I waited for my contact to arrive. After waiting until 9:45 I left the site.

The following day I was contacted by R. C. (Chuck) Larlham, Principal Environmental Engineer for DTE by phone. He was supposed to meet me at the site, but had been ill. He had left a message on my phone. We discussed the facility and he forwarded records to me via e-mail.

Since the last inspection DTE has switched to Ultra Low Sulfur Diesel (ULSD) fuel.

Monthly maintenance and inspections are performed on the engines the last working day of each month. The maintenance includes the collection of a fuel sample for analysis. A fuel sample collected June 30, 2014 and was analyzed by DTE and found to contain 0.0016 % Sulfur by weight. The fuel was also analyzed at 19,655 BTU/lb. Adjusted to 18,000 BTU/lb. the value becomes 0.0015% Sulfur by weight. The limit is 1.5%.

Other than general conditions, the fuel sulfur content limit and the recordkeeping of all analytical results to demonstrate compliance are the only two compliance conditions in the ROP.

I did not identify any violations.

NAME _____ DATE 8-1-2014 SUPERVISOR _____