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

N830455220

FACILITY: CLOVERLAND ELECTRIC - MANISTIQUE DIESEL PEAKERS		**SRN / ID:** N8304
LOCATION: 335 CHIPPEWA AVE, MANISTIQUE		**DISTRICT:** Marquette
CITY: MANISTIQUE		**COUNTY:** SCHOOLCRAFT
CONTACT: ROGER LINE , DIRECTOR OF GENERATION		**ACTIVITY DATE:** 07/16/2020
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Announced inspection of facility to ensure compliance with PTI#58-10 for diesel peaking units EUDGPEAKER1 and EUDGPEAKER2		
RESOLVED COMPLAINTS:		

FACILITY: Cloverland Electric Manistique Diesel Peakers

INSPECTION DATE: 7/16/2020

EGLE AQD STAFF: Joseph Scanlan, EQA

FACILITY REPRESENTATIVE: Mr. Roger Line, Director of Generation for Cloverland Electric Cooperative.

LOCATION: The Cloverland Manistique Diesel Peakers are located at 335 Chippewa Avenue, Manistique, Schoolcraft County. The facility is located on the east side of Chippewa Avenue which is commercial/industrial, however there is a small residential neighborhood with homes directly across the street on the west side of Chippewa Avenue.

SOURCE DESCRIPTION: Cloverland Electric Cooperative is an electric generation and distribution company serving five rural counties in the eastern and central Upper Peninsula. In 2010, Cloverland acquired Edison Sault Electric and gained possession of the Manistique Diesel Peakers, which includes two diesel generator peaking units. These units are not for baseload operation, but rather as peaking units when demand in the service area is high or other generating units are not available.

The two General Electric diesel peaking units, EUDGPEAKER1 and EUDGPEAKER2, were installed in 1960 and 1972, respectively.

EUDGPEAKER1 is a General Electric 16-cylinder 2-cycle turbocharged diesel generator with a BHP of 2875, produces 2000kW, with a maximum fuel use rate of 154 gal/hr. This emission unit has a direct discharge unobstructed stack.

EUDGPEAKER2 is a General Electric 20-cylinder 2-cycle turbocharged diesel generator with a BHP of 3600, produces 3575 kW, with a maximum fuel use rate of 192.5 gal/hr. This emission unit also has a direct discharge unobstructed stack.

Both diesel peaking units are supplied diesel fuel from a 20,000 gallon underground storage tank.

REGULATORY APPLICABILITY:

This facility is an ROP opt-out and a synthetic minor source with emission limits for NOx and CO in PTI# 58-10. PTI# 58-10 has two Flexible Groups, FGPEAKERS and FGFACILITY. FGPEAKERS is regulated under FGFACILITY, which covers all process equipment source-wide.

Both diesel peaking units are subject to the RICE MACT (40 CFR, Part 63, Subpart ZZZZ) and operate under PTI# 58-10. Each diesel genset is fitted with an oxidation catalyst (installed 2013) to maintain compliance with RICE MACT CO and O_2 requirements.

COMPLIANCE

On 1/28/2019, EGLE AQD Marquette DO received a letter and compliance reports from Mr. Roger Line, Director of Generation for Cloverland Electric Cooperative. The letter stated that the enclosed semi-annual and annual reports had been submitted past their respective deadlines. This constituted a violation of the RICE MACT reporting requirements. Additionally, the company had missed the deadline for an emissions compliance test for the diesel peaking units, a violation of the RICE MACT testing requirements.

A VN was sent to the company on March 26, 2019. An adequate response was received by the company on 4/17/2019. In the response, Mr. Line explained that the employee that was responsible for the filing the compliance reports is no longer in the employment of Cloverland Electric and that he would be assuming these duties. Additionally an RFP had been sent out to various testing firms to complete the compliance performance testing.

August Mack Environmental, Inc. submitted a test notification on 6/18/2019 and testing was completed on 8/14/2019. During testing, pressure drop and temperature were recorded simultaneously at the inlet and outlet of the catalytic reduction system and CO was measured via gas sampled from the exhaust stack.

Per 40 CFR 63 Subpart ZZZZ, the CO concentration available limit must be less than 23 ppm at 15% O2 or meet the CO removal efficiency requirement of 70%. Results from the diesel peaker testing demonstrate that CO removal efficiency is in compliance with the Subpart ZZZZ requirements:

EUDGPEAKER1

- CO Removal efficiency: 91.06%

EUDGPEAKER2

- CO Removal efficiency: 81.52%

INSPECTION

On the afternoon of 7/16/2020 I arrived at the site. Wearing appropriate PPE, I made contact with Mr. Jonn Mackie, Manistique Division Manager for Cloverland Electric. Mr. Mackie and I went into the fenced yard and inspected the diesel peaking units. These units are stand-alone units and are located outside next to one another. The 20,000 gallon UST is located adjacent to the engines. The diesel peaking units were not operating at the time of my visit. Mr. Mackie opened the service doors on the engine covers so I could see the engines inside.

Diesel fuel shipment manifests for 12 months show 7 deliveries, all from Manistique Oil Company. Manistique Oil Company is supplied by U.S. Oil from their terminals located in Green Bay and Cheboygan, WI. The most recent delivery prior to my inspection was 2/19/2020. U.S. Oil certifies diesel with a maximum 15 ppm sulfur content. This satisfies the requirements of SC II.1, SC VI.3 and SC VI.5 of PTI# 58-10.

SC IV.1 requires FGPEAKERS are equipped with a non-resettable hour meter. EUDGPEAKER1 and EUDGPEAKER2 both are equipped with non-resettable hour meters.

To comply with the annual NOx limit of 89.9 tpy and CO limit of 89.9 tpy set forth in SC I.1 & 2, SC VI.2 requires the facility to calculate NOx and CO emissions on a monthly basis. SC VI.4 requires the permittee to keep these records on file and available. The facility provided monthly and annual NOx and CO emission calculations for the previous 29 months. 12-month rolling totals for NOx have never exceeded 23 tpy and 12-month rolling totals for CO have never exceeded 5 tpy. The facility NOx and CO emissions are well below permitted requirements.

40 CFR 63 Subpart ZZZZ requires additional record-keeping outside of PTI# 58-10, including submittal of semi-annual and annual compliance reports. Compliance reports consist of recording operating

temperatures (4 hr averages) from the exhaust stack to ensure the engines are operating within a temperature range of 450 to 1350 degrees F. Compliance reports also include the monthly average pressure drop (in H2O) for each unit. Review of the compliance reports for the previous 18 months show excellent record-keeping and that the facility is operating each engine within permissible limits according to the RICE MACT.

SUMMARY

Based on the file records review and site inspection, Cloverland Electric Cooperative Manistique Diesel Peakers facility is in compliance with PTI# 58-10 and 40 CFR 63 Subpart ZZZZ (RICE MACT).

Image 1(MDP1) : EUDGPEAKER1

Image 3(MDP3) : EUDGPEAKER1

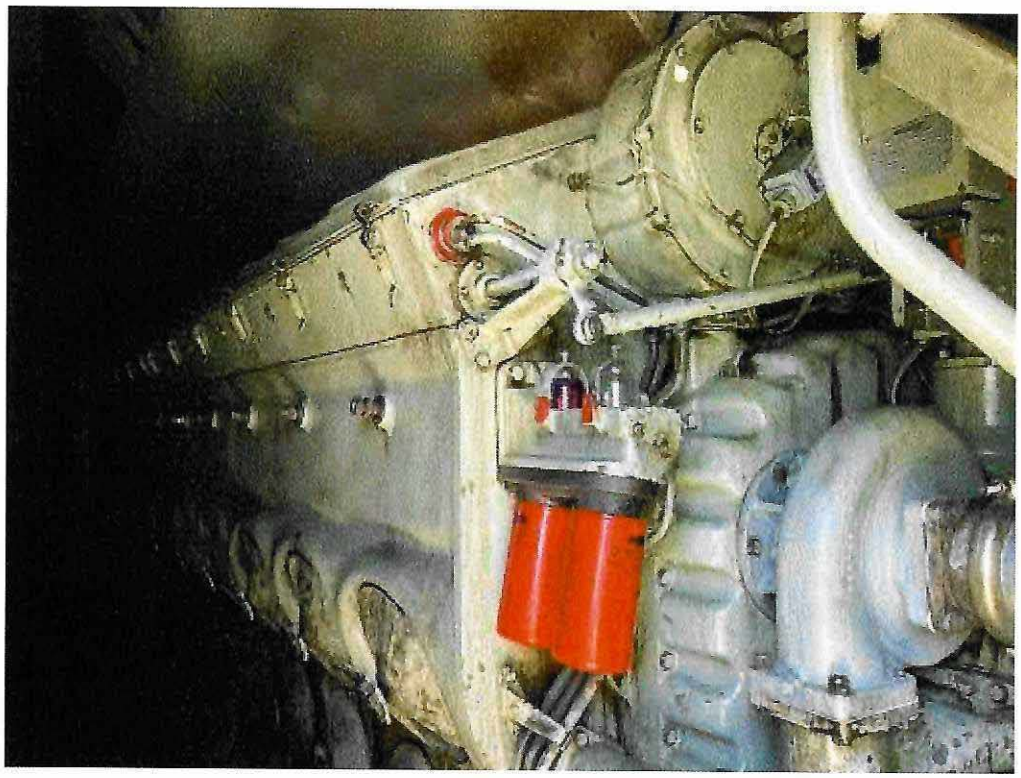

Image 4(MDP4) : EUDGPEAKER2

NAME Joe Scanlan EJL DATE 10/12/20 SUPERVISOR EJL