

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

A403372184

FACILITY: The Dow Chemical Company U.S.A., Midland		SRN / ID: A4033
LOCATION: 1790 Building, MIDLAND		DISTRICT: Bay City
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Jim Alger , Midland Area State Air Permitting Specialist		ACTIVITY DATE: 05/21/2024
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: Partial compliance evaluation of EU633RICE and EU123RICE.		
RESOLVED COMPLAINTS:		

A partial compliance evaluation (PCE) consisting of an onsite inspection and records review was conducted by Air Quality Division (AQD) staff Adam Shaffer (AS) of the Dow Chemical (DC) site located in Midland, MI. Applicable records were requested on May 14, 2024, to verify compliance with Renewable Operating Permit (ROP) No. MI-ROP-A4033-2024, specifically for emission units (EU)633RICE and EU123RICE. Through these emission units, select records were requested and reviewed for flexible group (FG)NSPSIII. It should be noted that EU1870-01 was also reviewed as a separate PCE during the course of this inspection. An in-person inspection to verify onsite compliance was later completed on May 21, 2024.

### **Facility Description**

DC is a chemical processing facility. The facility is a mega-site and is a major source of hazardous air pollutants (HAPs), nitrous oxides (NOx), particulate matter (PM) and volatile organic compounds (VOCs). Additionally, the site is subject to various federal regulations.

### **Offsite Compliance Review**

DC is required to submit semi-annual and annual compliance reports per Part A General Conditions of 19-23 of MI-ROP-A4033-2024. Previous reports were reviewed for select time periods. Based on the records reviewed, none of the deviations reported appeared to be associated with EU633RICE or EU123RICE.

Based on the timing of the inspection, DC had submitted their State and Local Emissions Inventory System (SLEIS) Report for 2023 and was already processed. DC utilizes an EPA approved emissions calculation system to determine their emissions. After additional discussions between AQD and DC staff, a step-by-step example was provided to demonstrate how the program calculates emissions. After further review, the example appears acceptable and select total emissions, based on timing, will be compared from EU's reviewed to emissions reported. Upon review of the 2023 SLEIS Report, however, it does not appear to include EU633RICE or EU123RICE. Moving forward, it was concluded that an updated equipment inventory shall be submitted by DC and the next SLEIS reporting season shall include both of these emission units.

### **Compliance Evaluation**

A request was sent to Mr. Jim Alger, Midland Area State Air Permitting Specialist, on May 14, 2024, for records required by ROP No. MI-ROP-A4033-2024, for EU633RICE, EU123RICE and FGNSPSIII. The onsite inspection was completed on May 21, 2024. AQD staff AS arrived at the offsite meeting location at 8:31am. Weather conditions at the time were temperatures in the mid 60's degrees Fahrenheit, mostly cloudy skies, and winds to the east at 5-10mph. Upon arrival AS met with Mr. Alger and several other company staff to

initially go over records offsite and later completed a tour of the site, which included EU633RICE and EU123RICE. Site specific questions were answered by company staff at the time of the inspection / following the inspection.

As mentioned above DC is a chemical processing facility. During the inspection, various components pertaining to EU633RICE and EU123RICE were reviewed and discussed at length with company staff.

#### **ROP No. MI-ROP-A4033-2024**

#### **FGNSPSIII**

This flexible group is for non-fire emergency reciprocating internal combustion diesel-fueled emergency engines with a model year of 2011 or later, subject to 40 CFR part 60, Subpart III. Emission units associated with this flex group are EU1310RadioTowerRICE, EUEVOWIFLS, EU633RICE and EU123RICE. For this inspection only portions of the flex group that pertain to EU633RICE and EU123RICE were reviewed.

#### **Onsite Observations**

The two engines were observed during the course of the inspection, however, were not operating at the time of the inspection. Both engines appeared to be being kept in good condition.

Per Special Condition (SC) III.1, the permittee shall not operate each engine in FGNSPSIII for more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing. Additionally, per SC III.2, the permittee may operate each engine in FGNSPSIII up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted as part of the 100 hours per calendar year for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Records of hours of operation were requested and provided for select time periods for the two emergency engines. Based on the records provided, DC appears to be meeting these applicable hour limits for each engine. It was verified by company staff that the two engines are certified engines. Per SC III.3, if a certified engine, the permittee shall meet several requirements that are further described in the SC. Based on the observations made, discussions with company staff and records / responses provided, there appeared to be no issues.

Per SC IV.1, the permittee shall equip and maintain each engine in FGNSPSIII with a non-resettable hour's meter to track the operating hours. Non-resettable hour meters were observed on both engines at the time of the inspection. The following hours were recorded at the time of the inspection.

EU633RICE – 141.7 hours

EU123RICE – 385.2 hours

Per SC IV.2, the maximum rated power output of each engine in FGNSPSIII shall not exceed the horsepower (HP) or kilowatts(kW) as certified by the equipment manufacturer. Based on the observations made, there appears to be no issues.

#### **Records Review**

Per SC I.1-3, the two engines are subject to emission limits for NMHC + NO<sub>x</sub>, CO, and PM. It was determined that both engines that are part of this inspection are certified engines. Certificates of conformity were provided to verify this. Based on the information provided, no further action is necessary at this time.

Per SC II.1, the permittee shall burn only diesel fuel in each engine in FGNSPSIII with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. Records were requested and provided verifying the fuel used is ultra-low sulfur diesel. This appears acceptable.

Per SC V.1, due to both engines being certified, no testing is required at this time.

Per SC VI.2, specifically for certified engines, the permittee shall keep records of the manufacturer certification documentation. As mentioned above, certificates of conformity were provided for both engines being inspected. After further review, no issues were identified.

Per SC VI.3a, for certified engines specifically, the permittee shall keep records of the manufacturer's emission-related written instructions and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4. Based on the observations made, discussions with company staff and records / responses provided, the engines appear to be being operated in a satisfactory manner to maintain being certified. It should be noted that SC III.4 appears to be intended more for non-certified engines while SC VI.3a is for certified engines.

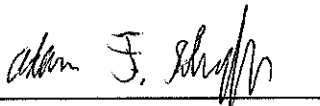
Per SC VI.4, the permittee shall monitor and record, the total hours of operation for each engine in FGNSPSIII on a monthly / 12-month rolling time period. Additional specifics for the records such as how many hours for each emergency situation and how many hours for non-emergency situations shall also be shown. Records were requested and provided for select time periods. After further review and speaking with company staff, the records appear acceptable.

Per SC VI.5, the permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel used in order to verify it meets the applicable requirements of the NSPS Subpart IIII. Invoices were provided of the last two fuel deliveries that would apply to the two engines. After further review, the records appear acceptable.

### **Conclusion**

Based on the observations made and records reviewed, DSC appears to be in compliance with MI-ROP-A4033-2024, specifically the portions related to EU123RICE, EU633RICE and FGNSPSIII.

NAME



DATE

08/12/24

SUPERVISOR

