

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> Michigan State University	<b>SRN :</b> K3249
<b>Location :</b> 426 Auditorium Rd. Board of Trustees Room 405	<b>District :</b> Lansing
	<b>County :</b> INGHAM
<b>City :</b> EAST LANSING <b>State:</b> MI <b>Zip Code :</b> 48824	<b>Compliance Status :</b> Compliance
<b>Source Class :</b> MAJOR	<b>Staff :</b> Daniel McGeen
<b>FCE Begin Date :</b> 9/30/2020	<b>FCE Completion Date :</b> 9/30/2021
<b>Comments :</b>	

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
09/02/2021	NSPS (Part 60)	Compliance	MSU submitted electronic notification that MSU has completed installation and construction of 3 RICE engines (EU_ENGINE1 through EU_ENGINE3) at TB Simon Power Plant, following electrical issues which prohibited trial operation in November 2020. MSU expects to begin commissioning and shakedown operation of the units from Jan. to Feb. 2022. Testing will be scheduled, they indicated, likely within 60 days of completion of shakedown operations.
09/02/2021	MACT (Part 63)	Compliance	MSU submitted electronic semi-annual reporting required by 40 CFR Part 63, Subpart ZZZZ, aka the RICE MACT. The 3 RICE engines (EU_ENGINE1 through EU_ENGINE3) at TB Simon Power Plant, did not operate during the period 1/1-6/30/2021, due to electrical issues which prevented operations from beginning in 11/2020.
08/04/2021	ROP Semi 1 Cert		Semi-Annual report for Section 1.
08/04/2021	ROP Semi 1 Cert		Semi-Annual report for Section 2.

Activity Date	Activity Type	Compliance Status	Comments
08/03/2021	Stack Test	Unknown	AQD LDO received stack test protocol to test EUDIENGINE, the MSU Dairy Farm digester SI-RICE, for NOx, CO, and VOC on 10/12/2021. Testing of NOx, CO, and VOC is required pursuant to 40 CFR Part 60, Subpart JJJJ, every 8,760 hours of operation or every 3 years, whichever comes first. AQD LDO to attend testing.
06/23/2021	On-site Inspection	Compliance	Scheduled inspection conducted over two days, on 6/23 and 6/28/2021. This was done as part of a Full Compliance Evaluation.
05/25/2021	MAERS	Compliance	2020 MAERS received electronically. Report passes audit. Changes in emissions consistent with changes in throughput, except for engine test cells and test stand.
04/22/2021	ROP Tech Review Notes	Compliance	ROP renewal technical review notes. ----- DRAFT -----
03/26/2021	MACT (Part 63)	Compliance	EU-EUNIT2 boiler tune-up, pursuant to major source boiler MACT, Subpart DDDDD. Reported activities included inspecting the burner, flame pattern, and air to fuel ratio control system, optimizing CO emissions, and measuring CO and O2 emissions before and after tune-up.
03/26/2021	MACT (Part 63)	Compliance	EU-EUNIT1 boiler tune-up, pursuant to major source boiler MACT, Subpart DDDDD. Reported activities included inspecting the burner, flame pattern, and air to fuel ratio control system, optimizing CO emissions, and measuring CO and O2 emissions before and after tune-up.
03/26/2021	MACT (Part 63)	Compliance	EU-UNIVCONRESCTR1 boiler tune-up, on boiler for building #0211, pursuant to major source boiler MACT, Subpart DDDDD. Numerous tests and checks were reported, and all passed.

Activity Date	Activity Type	Compliance Status	Comments
03/26/2021	MACT (Part 63)	Compliance	EU-EUNIT4 boiler tune-up, pursuant to major source boiler MACT, Subpart DDDDD. Reported activities included inspecting the burner, flame pattern, and air to fuel ratio control system, optimizing CO emissions, and measuring CO and O2 emissions before and after tune-up.
03/26/2021	MACT (Part 63)	Compliance	EU-UNIVCONRESCTR2 boiler tune-up, on boiler for building #0211, pursuant to major source boiler MACT, Subpart DDDDD. Numerous tests and checks were reported, and all were reported to have passed.
03/26/2021	MACT (Part 63)	Compliance	EU-UNIVCONRESCTR3 boiler tune-up, on boiler for building #0211, pursuant to major source boiler MACT, Subpart DDDDD. Numerous tests and checks were reported, and all passed.
03/26/2021	MACT (Part 63)	Compliance	EU-DCPAH2 boiler tune-up, pursuant to major source boiler MACT, Subpart DDDDD. Numerous checks and tests were reported, and all passed.
03/26/2021	MACT (Part 63)	Compliance	EU-EUNIT3 boiler tune-up, pursuant to major source boiler MACT, Subpart DDDDD. Reported activities included inspecting the burner, flame pattern, and air to fuel ratio control system, optimizing CO emissions, and measuring CO and O2 emissions before and after tune-up.
03/23/2021	Stack Test	Unknown	Revised version of stack test extension request letter/RICE status letter sent on 3/17/2021 by MSU, to reflect corrected run time hours for EU-ENGINE1 through EU-ENGINE3. AQD is reviewing MSU's request to extend the stack test deadline from 180 days, which would be in May 2021), to at least as late as September, 2021. This may require revision to MSU's PTI. AQD will respond.

Activity Date	Activity Type	Compliance Status	Comments
03/18/2021	Stack Test	Unknown	On 3/17/2021, AQD electronically received 3/17 letter from MSU on status of RICE units EU-ENGINE1 through EU-ENGINE3. Due to electrical issues discovered during trial operation, the units were never completely commissioned. Electrical system redesign and repair has moved the expected commissioning to September, 2021. Per the requirement of the PTI, the deadline for initial compliance testing of 180 days from date of commencement of startup would be 5/16/2020. MSU therefore requested an extension of the deadline for initial compliance testing. Ms. Sherri Jett, Director of Utilities emailed on 3/18 to advise that their letter was being revised due to receipt of corrected data, and will be resubmitted shortly. AQD will have internal discussions, and respond.
03/18/2021	ROP Annual Cert	Compliance	ROP Section 2 Annual Certification received 1 day late. Ms. Amanda Groll explained this was due to the logistics of working remotely and sharing a document with multiple MSU contacts. Hard copy received on 3/19/2021.
03/18/2021	ROP SEMI 2 CERT	Compliance	ROP Section 2 Semi-Annual Certification for 7/1-12/31/2020 received 1 day late. Ms. Amanda Groll explained this was due to the logistics of coordinating while working remotely. Hardcopy received on 3/19/2021.
02/25/2021	Other	Compliance	Email discussion of CEMS status for units at the TB Simon Power Plant. ----- DRAFT -----
02/18/2021	ROP Annual Cert	Compliance	Electronic copy of MSU annual certification was received timely and complete for Section 1 of the ROP. No deviations were reported. Hardcopy received on 2/25/2021.
02/18/2021	ROP SEMI 2 CERT	Compliance	Electronic copy of MSU semi-annual certification for 7/1-12/31/2020 was received timely and complete, for Section 1 of the ROP. No deviations were reported. Hardcopy received on 2/25/2021.

Activity Date	Activity Type	Compliance Status	Comments
02/11/2021	Meeting Notes	Compliance	2/11 and 3/1/20201 discussions with MSU and NTH, regarding 40 CFR Part 60, Subpart FFFF, Section 60.3061. MSU proposed to incinerate waste from providing COVID vaccines at MSU, using the Farm Lane Incinerator, but ultimately withdrew their request.
01/11/2021	Stack Test	Compliance	Digester Emission Stack Test Report - South Dairy Farm, for digester gas-fired generator. Testing for the SI-RICE is required by 40 CFR Part 60, Subpart JJJJ, and by MI-ROP-K3249-2016a. Emissions of CO, NOx, and VOC were all below the NSPS emission limits. 349 kW is 91.84% of the maximum load of 380 kW, based on data I collected. This is above the minimum requirement of 90%, and was acceptable to AQD as maximum routine operating conditions.
12/22/2020	Other	Compliance	MSU informed AQD via email that OEM testing of the 3 new RICE would be delayed until after the units resume running again in mid-to late January 2021, and that compliance stack testing of the RICE would be done in late February 2021.
11/20/2020	Other Non ROP	Compliance	On 11/19/2020, MSU sent e-notification of installation and construction of 3 RICE (EU-ENGINE1, EU-ENGINE2, and EU-ENGINE3), at TB Simon Power Plant. Trial operation commenced on 11/17/2020. This notification satisfies PTI 139-18, SC FGRICE VII. 1., and MAPC Rule 201(7)(a). Hardcopy received on 11/24/2020.
11/20/2020	MACT (Part 63)	Compliance	On 11/19/2020, MSU sent e-notification of installation and construction of 3 RICE (EU-ENGINE1, EU-ENGINE2, and EU-ENGINE3), at TB Simon Power Plant. Trial operation commenced on 11/17/2020. This notification satisfies PTI 139-18, SC FGRICE VII. 6., and Section 63.6645(a) of 40 CFR Part 63, Subpart ZZZZ. Hardcopy received on 11/24/2020.

Activity Date	Activity Type	Compliance Status	Comments
11/16/2020	Telephone Notes	Compliance	MSU provided verbal notification that they will separate the pending compliance testing for the 3 RICE engines at the T.B. Simon Power Plant from the OEM performance testing. The compliance testing will be done at a later date.
11/09/2020	NSPS (Part 60)	Compliance	Emissions testing performed on EU-DIENGINE at the MSU South Campus Dairy Farm. Emissions of CO, NOx, and VOC were all below the NSPS emission limits. This is a duplicate entry, but documents the report as an NSPS submittal. 349 kW is 91.84% of the maximum load of 380 kW, based on data I collected. This is above the minimum NSPS and AQD requirement of 90%, and was acceptable to AQD as maximum routine operating conditions.
10/13/2020	Stack Test Observation	Compliance	DRAFT -- Stack test of EU-DIENGINE located adjacent to the South Campus Anaerobic Digester. Preliminary results indicated compliance.

Name: 

Date: 9/30/2021

Supervisor: B.M.