

STATE OF MICHIGAN

DEPARTMENT OF ENVIRONMENTAL QUALITY DETROIT



C. HEIDI GRETHER

November 21, 2018

Mr. Robert Suida, Plant Manager Detroit Renewable Power, LLC 5700 Russell St. Detroit. MI 48211-2545

Dear Mr. Suida:

SRN: M4148, Wayne County

VIOLATION NOTICE

On November 1, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), received the Third Quarter 2018 Continuous Emissions Monitoring Systems (CEMS) Report for Detroit Renewable Power (DRP) located at 5700 Russell, Detroit, Michigan. Hourly CEMS data was provided via email on November 15 and 16, 2018. During review of the Third Quarter 2018 CEMS Report and hourly CEMS data provided, the AQD evaluated compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; MI-ROP-M4148-2011a; and Administrative Consent Order (ACO) AQD No. 6-2017.

During the review of the Third Quarter 2018 CEMS Reports and CEMS data, the following violations were identified:

Process Description	Rule/Permit Condition Violated	Comments
Boilers 12 and 13	ROP No. MI-ROP-M4148- 2011a, FGBOILERS011-013, SC I.9.a	Boiler 12 SO ₂ emissions based on a 24-hour daily geometric mean exceeded 29 parts per million by volume (ppmv) on 8/11/18 (31 ppmv). Boiler 13 SO ₂ emissions exceeded the geometric mean limit on 8/11/18 (39 ppmv).
	40 CFR Part 60, Subpart Cb, §60.33b(b)(3)(i)	
	40 CFR Part 62, Subpart FFF, §62.14103(b)(1)	
	ACO AQD No. 6-2017, Paragraph 13	
Boiler 11	ROP No. MI-ROP-M4148- 2011a, FGBOILERS011-013, SC I.11.a	Boiler 11 CO emissions based on a 24-hour block average exceeded 200 ppmv on 7/8/18 (225 ppmv).
	40 CFR Part 60, Subpart Cb, §60.34b(a), Table 3	
	ACO AQD No. 6-2017, Paragraph 13	

Boiler 11 and 12	ROP No. MI-ROP-M4148- 2011a, FGBOILERS011-013, SC I.11.b	Boiler 11 CO emissions based on a 1-hour block average exceeded 267 ppmv for two consecutive hours on 9/2/18 (11:00 to 13:00 – 750 ppmv and 310 ppmv) and 9/3/18 (11:00 to 13:00 – 403 ppmv and 359 ppmv). Boiler 12 CO emissions exceeded the 1-hour block average for two consecutive hours on 7/5/18 (4:00 to 6:00 – 304
Boiler 11	ROP No. MI-ROP-M4148- 2011a, FGBOILERS011-013, SC I.13.a	ppmv and 281 ppmv). Boiler 11 NOx emissions based on a 1-hour block average exceeded 247
	00 1. 10.u	ppmv on 9/7/18 (0:00 to 1:00 – 248 ppmv).

Sulfur Dioxide 24-hour Daily Geometric Mean - FGBOILERS011-013, SC I.9.a

Boiler 12 SO₂ emissions based on a 24-hour daily geometric mean exceeded 29 ppmv on August 11, 2018, (31 ppmv). Boiler 13 SO₂ emissions based on a 24-hour daily geometric mean exceeded 29 ppmv on August 11, 2018 (39 ppmv). These exceedances are a violation of ROP No. MI-ROP-M4148-2011a, FGBOILERS011-013, SC I.9.a and 40 CFR Part 60, Subpart Cb, §60.33b(b)(3)(i), and 40 CFR Part 62, Subpart FFF, §62.14103(b)(1). Per ACO AQD No. 6-2017, Paragraph 13, this violation is also subject to stipulated fines.

It should be noted that per 40 CFR §60.51b, the twenty four hour daily average is defined as follows.

Twenty-four hour daily average or 24 hour daily average means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

It should be also noted that 40 CFR Part 60, Appendix A-7, 12.4.3, Equation 19-21 defines the calculation for daily geometric average pollutant rates as follows.

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$$E_{ga} = exp \left| \frac{1}{n_t} \sum_{j=1}^{n_t} \left[1n(E_{hj}) \right] \right|$$
 Eq. 19-21

Where:

 E_{ga} = Daily geometric average pollutant rate, ng/J (lbs/million Btu) or ppm corrected to 7 percent O_2 .

 E_{hj} = Hourly arithmetic average pollutant rate for hour "j," ng/J (lb/million Btu) or ppm corrected to 7 percent O_2 .

 n_t = Total number of hourly averages for which paired inlet and outlet pollutant rates are available within the 24-hr midnight to midnight daily period.

For further correspondence/guidance regarding the calculation of the 24-hour geometric mean, please see correspondence from the AQD dated September 26, 2018.

Carbon Monoxide 24-hour Block Average - FGBOILERS011-013, SC I.11.a

On July 8, 2018, Boiler 11 exceeded the 24-hour block average CO emission limit (200 ppmv) at 225 ppmv. This exceedance is a violation of ROP No. MI-ROP-M4148-2011a, FGBOILERS011-013, SC I.11.a and 40 CFR Part 60, Subpart Cb, §60.34b(a), Table 3. Per ACO AQD No. 6-2017, Paragraph 13, this violation is also subject to stipulated fines.

Similar to the SO₂ exceedance discussion above, the CO 24-hour block average (arithmetic) should be calculated for all operating hours over a 24-hour period between 12:00 midnight and the following midnight. For further correspondence/guidance regarding the calculation of the 24-hour average, please see correspondence from the AQD dated September 26, 2018.

Carbon Monoxide 1-hour Block Average - FGBOILERS011-013, SC I.11.b

Boiler 11 exceeded the 1-hour block average CO emission limit (267 ppmv) for two consecutive hours on September 2, 2018 (11:00 to 13:00 - 750 ppmv and 310 ppmv) and September 3, 2018 (11:00 to 13:00 - 403 ppmv and 359 ppmv) indicating corrective action was not implemented in a timely manner. On July 5, 2018, Boiler 12 exceeded the 1-hour block average CO emission limit (267 ppmv) for two consecutive hours (4:00 to 6:00 - 304 ppmv and 281 ppmv); indicating corrective action was not implemented in a timely manner. Each incident is a violation of ROP No. MI-ROP-M4148-2011a, FGBOILERS011-013, SC I.11.b.

Nitrogen Oxide 1-hour Block Average - FGBOILERS011-013, SC I.13.a

On September 7, 2018, Boiler 11 exceeded the 1-hour block average NOx emission limit (247 ppmv) for one hour (0:00 to 1:00 – 248 ppmv). This incident did not occur during startup or shutdown scenarios. This incident is a violation of ROP No. MI-ROP-M4148-2011a, FGBOILERS011-013, SC I.13.a.

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Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by December 12, 2018 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit the written response to the DEQ, AQD, Detroit District, at 3058 West Grand Boulevard, Suite 2-300, Detroit, Michigan 48202 and submit a copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor, at the DEQ, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If DRP believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,

Todd Zynda, P.É.

Senior Environmental Engineer

Air Quality Division 313-456-2761

cc: Mr. Mark Fletcher, DRP

Mr. Paul Max, City of Detroit, BSEED

Ms. Mary Ann Dolehanty, DEQ

Dr. Eduardo Olaguer, DEQ

Mr. Christopher Ethridge, DEQ

Ms. Jenine Camilleri. DEQ

Ms. Wilhemina McLemore, DEQ

Mr. Jeff Korniski, DEQ