



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DETROIT



DAN WYANT  
DIRECTOR

May 11, 2015

Mr. Gary Quantock, Vice President of Operations  
DTE Biomass Energy  
425 South Main St., Suite 201  
Ann Arbor, MI 48104

SRN: M4469, Wayne County

Dear Mr. Quantock:

**VIOLATION NOTICE**

On April 27, 2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of DTE Biomass Energy, Riverview Energy Systems (hereafter Riverview Energy Systems) located at 20000 Grange Road, Riverview, Michigan. The purpose of this inspection was to determine Riverview Energy Systems' 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 administrative rules and the conditions of Renewable Operating Permit (ROP) number MI-ROP-M4469-2015, Section 1, and its predecessor ROPs.

During the process of reviewing records related to this inspection, DEQ-AQD observed the following violations:

Process Description	Rule/Permit Condition Violated	Comments
EUTURBINE1	MI-ROP-M4469-2015, Section 1: FGTURBINES, Special Condition (SC) I.5	The 12-month rolling total Sulfur Dioxide (SO <sub>2</sub> ) emissions exceeded the permit limit of 17.34 tons. A total of 46 violations of the 12-month rolling limit were noted beginning June 2011 through March 2015.
EUTURBINE2	MI-ROP-M4469-2015, Section 1: FGTURBINES, SC I.5	The 12-month rolling total Sulfur Dioxide (SO <sub>2</sub> ) emissions exceeded the permit limit of 17.34 tons. A total of 35 violations of the 12-month rolling limit were noted beginning July 2011 through March 2015.
FGTURBINES	MI-ROP-M4469-2015, Section 1: FGTURBINES, SC V.2 and Appendix 9-1;  40 CFR 60.334(i)(3)	The facility deviated from the fuel sampling schedule within Appendix 9-1 of the ROP by failing to perform fuel sampling during the first quarter, 2013.

FGTURBINES	MI-ROP-M4469-2015, Section 1: FGTURBINES, SCs VII.1 through 3;  R 336.1213(3)(c);  R 336.1213(4)(c)	The Responsible Official submitted annual and semi-annual ROP certifications from 2011 through 2013 which failed to promptly report deviations and emission exceedances, which should have been reported based on reasonable inquiry.
FGTURBINES	R 336.1201(1) (a)	The facility failed to obtain a Permit to Install prior to making a modification to EUTURBINE1 and prior to making a modification to EUTURBINE 2.
FGTURBINES	R 336.2908(3) and (5)	The facility has constructed and is operating a major modification, as defined at R 336.2901(s), for SO <sub>2</sub> located within an SO <sub>2</sub> nonattainment area without complying with the lowest achievable emission rate (LAER) for SO <sub>2</sub> and without providing emission reduction offsets for SO <sub>2</sub> .
FGTURBINES	MI-ROP-M4469-2015, Section 1: General Condition 24;  R 336.1212(6) and (7)	The facility reported inaccurate actual SO <sub>2</sub> emissions from EUTURBINE1 and from EUTURBINE2 to the Michigan Air Emissions Reporting System (MAERS) for the following reporting years: 2010, 2011, 2012, 2013, and 2014.

SC I.5 of FGTURBINES limits SO<sub>2</sub> emissions from EUTURBINE1 and EUTURBINE2, individually, to not more than 17.34 tons per 12-month rolling total determined at the end of each calendar month. The emission limits were established in Permit to Install No. 13-05, issued February 18, 2005, incorporated into Riverview Energy Systems' ROP on May 24, 2006, and carried forward into subsequent ROP renewals and revisions, including the Section 1 of the current ROP MI-ROP-M4469-2015, issued January 7, 2015.

In reviewing SO<sub>2</sub> emission calculations for Riverview Energy Systems submitted by DTE Biomass Energy for the time period beginning July 2010 through March 2015, the DEQ-AQD has determined that EUTURBINE1 and EUTURBINE2 have each exceeded the 12-month rolling total SO<sub>2</sub> limit: EUTURBINE1 totals 46 violations beginning with the 12-month period ending June 2011 and continuing through the 12-month period ending March 2015; EUTURBINE2 totals 35 violations beginning with the 12-month period ending July 2011 and continuing through the 12-month period ending August 2012, and beginning with the 12-month period ending July 2013 through the 12-month period ending March 2015. SO<sub>2</sub> emission data from EUTURBINE1 and EUTURBINE2 are summarized within an attachment to this letter.

The SO<sub>2</sub> emissions exceedances represent deviations from ROP requirements. The AQD administrative rules at R 336.1213(3)(c) require the reporting of deviations not less than once every 6 months, and further require the report to be certified by the facility's responsible official for its truth, accuracy, and completeness after reasonable inquiry. The administrative rules at R 336.1213(4)(c) also require an annual certification of compliance from the facility's responsible official, excepting those deviations identified by the facility after reasonable inquiry. These requirements are incorporated into the ROP at SCs VII.1 through 3 of FGTURBINES.

The SO<sub>2</sub> emissions exceedances commenced following the 12-month period ending June 2011, yet were not reported to AQD until the 2013 semi-annual ROP report, received by AQD on March 12, 2014, which reported one deviation for a "possible exceedance of SO<sub>2</sub> annual emission limit" for the 12-month time period ending July 1, 2013 through the 12-month time period ending December 31, 2013. Riverview Energy Systems calculates SO<sub>2</sub> 12-month total emissions for EUTURBINE1 and EUTURBINE2 from the monitored sulfur content of the landfill gas combusted within the turbines. The sulfur content monitoring data that resulted in the SO<sub>2</sub> emissions exceedances was available to Riverview Energy Systems as early as the 1<sup>st</sup> Quarter of 2010, yet Riverview Energy Systems failed to report the exceedances when they began to occur in June of 2011. Therefore, the AQD concludes the Responsible Official failed to perform reasonable inquiry when certifying the annual and semi-annual ROP reports stating that Riverview Energy Systems had no deviations of the SO<sub>2</sub> emissions limitations within FGTURBINES.

The emission exceedances registered for EUTURBINE1 and EUTURBINE2 are increases in SO<sub>2</sub> emissions which are not already allowed to be emitted under the conditions of the ROP. As the increases represent modifications to EUTURBINE1 and EUTURBINE2 which were initiated without first obtaining a Permit to Install, Riverview Energy Systems is in violation of R 336.1201(1).

Riverview Energy Systems and the Riverview Land Preserve combine to form a single stationary source located within an area of Wayne County designated on July 25, 2013, as nonattainment for the 1-hour SO<sub>2</sub> National Ambient Air Quality Standard. The stationary source has a potential to emit greater than 100 tons per year of SO<sub>2</sub>; therefore, this stationary source is major under Part 19 of the administrative rules. At the end of November 2013, the 12-month rolling total SO<sub>2</sub> emissions from FGTURBINES exceeded the 34.68 tons allowed under SC I.5 by a total of 43.51 tons. As the significant threshold for SO<sub>2</sub> is 40 tons, the increase in SO<sub>2</sub> represents both a significant emissions increase and a significant net emissions increase of a regulated new source review pollutant. Therefore, under Part 19 of the administrative rules, a change in the method of operation has occurred at FGTURBINES and has resulted in a major modification to an existing major nonattainment new source review stationary source. Riverview Energy Systems stands in violation of R 336.2908(3) and (5) because the facility has constructed a major modification without complying with the lowest achievable emission rate for SO<sub>2</sub> and without providing emission reduction

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offsets for SO<sub>2</sub>. SO<sub>2</sub> emission data from FGTURBINES are summarized within an attachment to this letter.

DTE Biomass Energy is a wholly-owned subsidiary of DTE Energy. Please be aware that state and federal air pollution regulations prohibit DTE Energy from obtaining any new permits for major offset sources located in Michigan until the cited violation(s) are corrected or until DTE Biomass Energy has entered into a legally enforceable order or judgment specifying an acceptable program and schedule for compliance.

On June 26, 1997, Riverview Energy Systems was given approval by the EPA to follow the Custom Fuel Sampling Schedule for Stationary Gas Turbines in lieu of daily fuel monitoring, as allowed under 40 CFR Part 60, Subpart GG (NSPS for Stationary Gas Turbines). The conditions of the Custom Fuel Sampling Schedule are incorporated into the ROP as Appendix 9-1. Based on past fuel monitoring results, Riverview Energy Systems has been allowed to perform sulfur monitoring of fuel twice per year, which is the least stringent monitoring allowed under the approved sampling schedule. This fuel monitoring is required to be conducted in the first and third quarters of each calendar year. For calendar year 2013, monitoring was not conducted during the first quarter of the year; monitoring was not performed until the second quarter of 2013 (April 25, 2013). By failing to perform sulfur monitoring of fuel during the first quarter of 2013, Riverview Energy Systems violated Appendix 9-1 of the ROP and 40 CFR Part 60.334(i)(3).

Rule 336.1212 (6) and (7) of the Michigan Air Rules require major stationary sources to report the emissions of each regulated air pollutant to the Michigan Air Emissions Reporting System (MAERS) on an annual basis. Riverview Energy Systems and Riverview Land Preserve comprise a single major stationary source. While Riverview Energy Systems has submitted emission reports to MAERS, a review of emission records has shown that the SO<sub>2</sub> emissions reported to MAERS by Riverview Energy Systems for calendar years 2010, 2011, 2012, 2013, and 2014 were far below the actual SO<sub>2</sub> emissions for those years. Since the facility failed to accurately report the actual SO<sub>2</sub> emissions to MAERS during these calendar years, this is a violation of R 336.1212(6) and (7).

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by June 1, 2015 (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.

If Riverview Energy Systems 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.

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Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my inspection of Riverview Energy Systems. 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,



Jonathan Lamb  
Senior Environmental Quality Analyst  
Air Quality Division  
313-456-4683

Enclosure

cc: Ms. Wilhemina McLemore, DEQ

Mr. Jeff Korniski, DEQ

cc/via e-mail: Ms. Lynn Fiedler, DEQ

Ms. Mary Ann Dolehanty, DEQ

Ms. Teresa Seidel, DEQ

Mr. Thomas Hess, DEQ

Mr. Mark Mitchell, DEQ

## RIVERVIEW ENERGY SYSTEMS

### ACTUAL 12-MONTH ROLLING SO2 EMISSIONS (TONS) FROM EUTURBINE1 and EUTURBINE2

<u>Year</u>	<u>Month</u>	<u>EUTURBINE1</u>	<u>EUTURBINE2</u>	<u>FGTURBINES</u>	<u>Emissions above Allowable Limit*</u>
2011	January	11.75	11.05	22.80	-11.88
2011	February	12.78	12.08	24.86	-9.82
2011	March	13.40	13.24	26.63	-8.05
2011	April	14.91	14.21	29.12	-5.56
2011	May	15.94	15.23	31.17	-3.52
2011	June	<b>18.02</b>	17.27	35.29	0.61
2011	July	<b>18.39</b>	<b>17.64</b>	36.02	1.34
2011	August	<b>18.58</b>	<b>18.01</b>	36.58	1.90
2011	September	<b>18.86</b>	<b>18.23</b>	37.09	2.41
2011	October	<b>19.38</b>	<b>19.42</b>	38.80	4.12
2011	November	<b>19.70</b>	<b>19.85</b>	39.54	4.86
2011	December	<b>20.25</b>	<b>20.38</b>	40.64	5.96
2012	January	<b>20.73</b>	<b>20.89</b>	41.62	6.94
2012	February	<b>22.47</b>	<b>22.63</b>	45.10	10.42
2012	March	<b>22.68</b>	<b>24.29</b>	46.97	12.29
2012	April	<b>23.16</b>	<b>24.77</b>	47.93	13.25
2012	May	<b>21.69</b>	<b>23.30</b>	44.99	10.31
2012	June	<b>20.28</b>	<b>21.89</b>	42.16	7.48
2012	July	<b>20.66</b>	<b>20.47</b>	41.14	6.46
2012	August	<b>21.07</b>	<b>18.65</b>	39.72	5.04
2012	September	<b>21.38</b>	16.91	38.28	3.60
2012	October	<b>21.41</b>	14.81	36.22	1.54
2012	November	<b>19.54</b>	12.93	32.46	-2.22
2012	December	<b>18.86</b>	12.10	30.97	-3.72
2013	January	<b>18.78</b>	11.98	30.76	-3.92
2013	February	<b>17.75</b>	10.93	28.68	-6.00
2013	March	<b>18.41</b>	10.13	28.54	-6.14
2013	April	<b>18.59</b>	10.47	29.07	-5.61
2013	May	<b>21.68</b>	13.55	35.23	0.55
2013	June	<b>24.40</b>	16.25	40.65	5.97
2013	July	<b>25.69</b>	<b>19.22</b>	44.91	10.23
2013	August	<b>26.83</b>	<b>22.39</b>	49.22	14.54
2013	September	<b>29.80</b>	<b>27.39</b>	57.20	22.52
2013	October	<b>33.09</b>	<b>33.17</b>	66.26	31.58
2013	November	<b>39.03</b>	<b>39.15</b>	<b>78.19</b>	<b>43.51</b>
2013	December	<b>43.48</b>	<b>43.59</b>	<b>87.07</b>	<b>52.39</b>
2014	January	<b>46.52</b>	<b>48.19</b>	<b>94.71</b>	<b>60.03</b>
2014	February	<b>48.24</b>	<b>49.95</b>	<b>98.19</b>	<b>63.51</b>
2014	March	<b>50.00</b>	<b>51.70</b>	<b>101.69</b>	<b>67.01</b>
2014	April	<b>51.84</b>	<b>53.37</b>	<b>105.22</b>	<b>70.54</b>
2014	May	<b>52.77</b>	<b>54.31</b>	<b>107.08</b>	<b>72.40</b>
2014	June	<b>53.40</b>	<b>54.98</b>	<b>108.39</b>	<b>73.71</b>
2014	July	<b>54.31</b>	<b>56.01</b>	<b>110.33</b>	<b>75.65</b>
2014	August	<b>54.93</b>	<b>56.65</b>	<b>111.58</b>	<b>76.90</b>
2014	September	<b>53.42</b>	<b>55.16</b>	<b>108.58</b>	<b>73.90</b>
2014	October	<b>50.99</b>	<b>52.82</b>	<b>103.81</b>	<b>69.13</b>
2014	November	<b>48.82</b>	<b>50.39</b>	<b>99.21</b>	<b>64.53</b>
2014	December	<b>46.89</b>	<b>47.82</b>	<b>94.71</b>	<b>60.03</b>
2015	January	<b>45.75</b>	<b>45.75</b>	<b>91.49</b>	<b>56.81</b>
2015	February	<b>44.01</b>	<b>44.02</b>	<b>88.03</b>	<b>53.35</b>
2015	March	<b>40.66</b>	<b>41.95</b>	<b>82.61</b>	<b>47.93</b>

\*SO2 emissions exceeding the allowable limit of 34.68 tons/12-month rolling time period for FGTURBINES  
12-month rolling exceedances in **BOLD**

Regulatory Limits

EUTURBINE1: 17.34 tons/12-month-rolling

EUTURBINE2: 17.34 tons/12-month rolling

Allowable SO2 Emissions for FGTURBINES: 34.68 tons/12-month rolling

NSR Nonattainment Significant Increase Threshold for SO2: 40 tons