



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JACKSON DISTRICT OFFICE



C. HEIDI GREYER  
DIRECTOR

August 30, 2018

**CERTIFIED MAIL – 7017 3380 0000 4105 8292**  
**RETURN RECEIPT**

Mr. Anthony J. Falbo  
Senior Vice President - Operations  
FORTISTAR Methane Group  
Arbor Hills Energy LLC  
10611 West 5 Mile Road  
Northville, Michigan 48167

SRN: N2688, Washtenaw County

Dear Mr. Falbo:

**VIOLATION NOTICE**

On July 31, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), received the Performance Test Results Report (Test Report) for FGTURBINES-S3, FGDUCTBURNERS-S3 and EUTURBINE4-S3 conducted by FORTISTAR Methane Group, Arbor Hills Energy (hereinafter AHE) of the Arbor Hills Landfill (AHLF) and located at 10611 W. 5 Mile Road, Northville, Michigan. The purpose of this testing was to determine AHE 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; the conditions of Renewable Operating Permit (ROP) number MI-ROP-N2688-2011; and Consent Order AQD number 16-2015.

To clarify the emission units and limits further, the FGTURBINES-S3, consists of three EUTURBINES 1, 2, & 3. The FGDUCTBURNERS-S3 consists of three EUDUCTBURNERS 1, 2 & 3. Each turbine has the corresponding number associated duct-burner. Each turbine and each duct-burner have individual emission limits.

Based on the results of the Test Report, accompanying AHE cover letter, and other information indicating numerous landfill gas wells were shut-off on the days of testing, the AQD has identified the following violations:

Process Description	Rule/Permit Condition Violated	Comments
FGTURBINES-S3 consisting of EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3	ROP, FGTURBINES-S3, Condition I. SO2 limit	Test results indicate SO2 pounds per hour (lbs/hr) emissions exceeded the limit of 2.9 lbs/hr for each turbine.

		Test results indicate SO2 tons per year (tpy) emissions exceed the limit of 12.9 tpy for each turbine.
FGDUCTBURNERS-S3 consisting of EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3	ROP, FGDUCTBURNERS-S3, Condition I. SO2 limit	Test results indicate SO2 pounds per hour (lbs/hr) emissions exceeded the limit of 0.3 lbs/hr for each duct-burner.  Test results indicate SO2 tons per year emissions exceed the limit of 1.5 tpy for each duct-burner.
EUTURBINE4-S3	ROP, EUTURBINE4-S3 Condition I. 6. SO2 limit	Test results indicate SO2 pounds per megawatt hour emissions exceeded the limit of 0.9 lbs/MWhr for Turbine 4.
FGTURBINES-S3, FGDUCTBURNERS-S3 and EUTURBINE4-S3	R 336.2003 Performance test criteria. Rule 1003 (3) All performance tests shall be conducted while the source of air contaminant is operating at maximum routine operating conditions, or under such other conditions, within the capacity of the equipment, as may be requested by the department.	AQD was notified following AHE testing that representative operating conditions were not met during the testing.
FGTURBINES-S3 and FGDUCTBURNERS-S3	CO 16-2015, Paragraph 9. B. 2. Testing	Failed to complete acceptable performance testing between June 1, 2015 and June 1, 2018, as required by CO.
EUTREATMENTSYS-S3 (EUACTIVECOLL-S2)	New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills, 40 CFR Part 60, Subpart WWW; 60.753 Operational standards for gas collection and control systems (GCCS)	AHE has a contractual obligation with ADS to monitor, record and maintain the GCCS Well field. AHE owns/operates the NSPS control system EUTREATMENTSYS-S3. Failure to operate in

		compliance with NSPS standard as part of Stationary Source.
FGTURBINES-S3, FGDUCTBURNERS-S3 and EUTURBINE4-S3	PART 18. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) OF AIR QUALITY (By authority conferred on the director of environmental quality by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, MCL 324.5501 to 324.5542), R 336.2802 (Rule 1802) Applicability of PSD requirements.)	Unpermitted PSD major modification that has resulted in a significant emissions increase and a significant net emissions increase (Rule 1802(4)(a)) of Sulfur Dioxide (SO2) greater than 40 tons per year.

The following two Tables summarize the SO2 test results and were taken from the submitted Test Report. Based on the information provided to AQD the reported emissions below were obtained during the testing period that included the reported shut-off of 25 landfill gas Wells.

	Turbine 1	Turbine 2	Turbine 3	Permit Limit
<u>Turbine Results</u>				
SO2 Emission Rate (lb/hr)	3.90	5.47	5.68	2.9
SO2 Emission Rate (tons/yr) ^	17.1	24.0	24.9	12.5
<u>Ductburner Results</u>				
SO2 Emission Rate (lb/hr)	2.64	2.24	2.43	0.3
SO2 Emission Rate (tons/yr) ^	11.5	9.8	10.6	1.5

^ Test Report states: Annual ton per year values are based on continuous operation (8760 hrs/yr) at the measured lb/hr emission rate.

<u>Turbine 4</u>	<u>Results</u>	<u>Permit Limit</u>
SO2 Emissions (lb/MW/hr)	2.15	0.9

This letter acknowledges that AQD is aware AHE is currently working with U.S.EPA to address ongoing SO2 violations.

Please initiate the required acceptable performance testing by re-test of the FGFGTURBINES-S3, FGDUCTBURNERS-S3 and EUTURBINE4-S3 as soon as possible.

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,



Diane Kavanaugh Vetort  
Senior Environmental Quality Analyst  
Air Quality Division  
517-416-3537

cc/via e-mail: Ms. Suparna Chakladar, FORTISTAR  
Mr. Jay Waszinski, ADS  
Mr. Ken Ruffatto, U.S. EPA  
Ms. Sarah Marshall, U.S. EPA  
Ms. Mary Ann Dolehanty, DEQ  
Mr. Craig Fitzner, DEQ  
Mr. Christopher Ethridge, DEQ  
Ms. Jenine Camilleri, DEQ  
Mr. Scott Miller, DEQ