



STATE OF MICHIGAN  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
 JACKSON DISTRICT OFFICE



GRETCHEN WHITMER  
 GOVERNOR

LIESL EICHLER CLARK  
 DIRECTOR

February 1, 2019

**CERTIFIED MAIL – 7017 3380 0000 4105 8339**  
**RETURN RECEIPT**

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

SRN: N2688, Washtenaw County

Dear Mr. Falbo:

**VIOLATION NOTICE**

On January 8, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Arbor Hills Energy LLC (Company) located at 10611 West Five Mile Road, Northville, Michigan. The purpose of this inspection was to determine the Company's 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) and the associated Air Pollution Control Rules, the conditions of Renewable Operating Permit (ROP) number MI-ROP-N2688-2011a; and Consent Order AQD Number 16-2015 (CO).

During the inspection and subsequent records review, AQD staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
FGTURBINES-S3 consisting of EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3.	ROP, FGTURBINES-S3, Condition I. SO2 limits.	October 16-18, 2018 stack testing results indicated that SO <sub>2</sub> pounds per hour (lbs/hr) exceeded permit limits of 2.9 lbs/hr and 12.5 tons per year (tpy) limit for each turbine.
FGDUCTBURNERS-S3 consisting of EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3.	ROP, FGDUCTBURNERS-S3, Condition I.	October 16-18, 2018 stack testing results indicated that SO <sub>2</sub> lbs/hr exceeded permit limits of 0.3 lbs/hr and 1.5 tpy limit for each duct burner.

EUTURBINE4-S3	ROP, EUTURBINE4-S3 Condition I. 6. SO2 limit.	October 16-18, 2018 stack testing results indicated that SO <sub>2</sub> lbs/hr exceeded permit limits of 0.3 lbs/hr and 1.5 tpy limit for each duct burner.
FGTURBINES-S3 and FGDUCTBURNERS-S3	Consent Order 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. Acceptable testing did not occur until October 16-18, 2018.
FGTURBINES-S3, FGDUCTBURNERS-S3 and EUTURBINE4-S3.	Part 18. Prevention of Significant Deterioration (PSD) of Air Quality. 40 CFR 52.21 and R 336.2802 (Rule 1802), R 336.1201 (Rule 201).	Unpermitted PSD major modification that has resulted in a significant emissions increase and a significant net emissions increase (Rule 1802(4)(a)) of SO <sub>2</sub> greater than 40 tons per year. This also triggers a requirement for a Permit to Install (PTI) permit.
FGTURBINES-S3, FGDUCTBURNERS-S3, 10,000-gallon underground diesel storage tank and 3 bypass stacks using during start-up and when heat steam recovery systems are undergoing maintenance.	Rule 201-No PTI. Use of diesel fuel is a change in the method of operation from how these turbines were originally permitted, therefore, the usage of diesel fuel would require a modification to the existing permit.	Three (3) turbines are using diesel fuel as an alternate fuel to landfill gas during start-up. This represents reconstructing an emission unit and a meaningful change in the quality and nature of emissions compared to the original permit application for these turbines which failed to describe this process.
FGTURBINES-S3	ROP, FGTURBINES-S3, Condition VII.1., 40 CFR, Part 60, Subpart GG; Standards of Performance for Stationary Gas Turbines.	Diesel fuel is being used to start-up the 3 turbines. AHE failed to notify AQD that diesel fuel is being used as an alternate fuel as required by Subpart GG. Furthermore, AHE has been operating under a waiver issued by U.S. EPA on January 19, 1996 that waived the requirement for

		daily fuel sampling for sulfur and nitrogen as long as only landfill gas was being fired in the turbines.
FGTURBINES-S3, FGDUCTBURNERS-S3.	40 CFR Part 60, Subpart KKKK; Standards of Performance for Stationary Combustion Turbines.	Unpermitted modifications to this emission unit triggered Subpart KKKK applicability which is not being complied with.
EUTREATMENTSYS-S3	ROP, EUTREATMENTSYS-S3, Condition IX- OTHER REQUIREMENTS.	The Preventative Maintenance Plan (PMP) is out of date. Process description does not match Start-up, Shutdown Malfunction Abatement Plan (SSM). It isn't clear what operating parameters are being measured, what the acceptable range is for each operating parameter or specifically what piece of process equipment it pertains to. The PMP needs to be updated/revise including current process flow diagrams added for clarity.
EUTREATMENTSYS-S3	ROP, EUTREATMENTSYS-S3, Condition IX.2., 40 CFR, Part 63, Subpart AAAA; National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.	SSM plan does not describe landfill gas venting events that occur when each of the main compressors goes through a shutdown sequence.
EUTREATMENTSYS-S3	ROP, EUTREATMENTSYS-S3, Condition III.2., 40 CFR, Part 60, Subpart WWWW - Standards of Performance for Municipal Solid Waste Landfills	Treatment system contains 4 stacks; one each associated with the 4 main compressors that vent to atmosphere generally whenever one of the compressors is turned off to vent residual landfill gas. These vents are not controlled by a flare or other control device.

The following table summarizes the SO2 stack test results:

<b>Emission Unit</b>	<b>Test Result</b>	<b>Limit</b>	<b>Calculated</b>	<b>Limit</b>
	SO2 (lb/hr)	SO2 (lb/hr)	(T/Yr) SO2**	SO2 (T/Yr)
Turbine 1	4.4	2.9	19.2	12.5
Turbine 2	6.3	2.9	27.6	12.5
Turbine 3	7.5	2.9	32.85	12.5
Turbine 4	1.4 lb/MW hr	0.9 lb/MW hr	N/A	N/A
Duct Burner 1	1.9	0.3	8.3	1.5
Duct Burner 2	1.6	0.3	7	1.5
Duct Burner 3	1.9	0.3	8.3	1.5

\*\* Note: Annual ton per year values are based on continuous operation (8760 hrs/yr) at the measured lb/hr emission rate.

This letter acknowledges that AQD is aware the Company is currently working with the U.S. EPA to address ongoing SO2 violations. AQD also acknowledges that the Company has submitted a PSD permit to install application requesting SO2 emission limit increases.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by February 22, 2019. 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 violation and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit written response to the DEQ, AQD Jackson District, at 301 East Louis B Glick Highway Jackson, Michigan 49201 and submit copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor at the DEQ, AQD P.O. Box 30260, Lansing, Michigan 48909-7760.

If the Company 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 and for the cooperation that was extended to me during my inspection of this Company. 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,



Mike Kovalchick  
Senior Environmental Engineer  
Air Quality Division  
517-416-5025

cc: Mr. Scott Miller, DEQ  
cc/via e-mail: Ms. Suparna Chakladar, FORTISTAR  
Mr. Jay Waszinski, ADS  
Mr. Bill Walls, ADS  
Mr. Ken Ruffatto, U.S. EPA  
Ms. Sarah Marshall, U.S. EPA  
Ms. Mary Ann Dolehanty, DEQ  
Dr. Jay Olaguer, DEQ  
Mr. Chris Ethridge, DEQ  
Ms. Jenine Camilleri, DEQ  
Ms. Ambrosia Brown, DEQ