



April 1, 2019

MDEQ – Lansing District Office  
Attn: Julie Brunner  
525 W. Allegan (1 South)  
P.O. Box 30242  
Lansing, MI 48909

And

Ms. Jenine Camilleri  
Enforcement Unit Supervisor  
MDEQ-AQD  
P.O. Box 30260  
Lansing, MI 48909-7760

**Response to Violation Notice Dated March 4, 2019  
Energy Developments Grand Blanc, LLC  
MI-ROP-N5991-2016 Section 2**

Energy Developments Grand Blanc, LLC (EDGB) is submitting this response to the Michigan Department of Environmental Quality (MDEQ) Violation Notice dated March 4, 2019. Based on updated MAERS emissions calculations received March 16, 2018, MDEQ alleged EDGB was in violation of Rule 201 (R336.1201), on each of the five CAT 3516 internal combustion engines located on site (EUENGINE1-EUENGINE5). EDGB does not believe they have violated compliance with regards to the referenced rule. Below are details of EDGB's response to the violation and additional information to clarify the position.

**Engine Information and History**

The five engines onsite are owned and operated by EDGB, who acquired them August 17, 2017 from Granger Electric, and combust solely landfill gas. The five CAT engines onsite have installation dates of July 27, 1994 (EUENGINES1-3), April 1, 2000 (EUENGINE4), and January 17, 2003 (EUENGINE5). Each of the CAT 3516 engines is subject to NESHAPs Subpart ZZZZ. The engines are exempt from NSPS Subpart JJJJ, as each:

- Commenced construction (i.e., was ordered by the company) prior to June 12, 2006.
- Has a manufacture date prior to January 1, 2008.
- Was not reconstructed as defined in 40 CFR §60.15.



- Was not modified as defined in 40 CFR §60.14 (refurbishing the engine does not result in an increase in regulated air pollutants).

### **Rule 201 Applicability**

Rule 201 states:

*Except as allowed in R 336.1202, R 336.1277 to R 336.1291, or R 336.2823(15) a person shall not install, construct, reconstruct, relocate, or modify any process or process equipment, including control equipment pertaining thereto, which may emit any of the following, unless a permit to install that authorizes such action is issued by the department.*

According to the manufacturer's guidelines, most recently updated in 2004, each CAT engine has a rated heat input capacity of approximately 9.5 MMBTU. As the engines each have a rated heat input capacity of less than 10 MMBTU, they therefore are exempt from the Permit to Install requirement per R 336.1285(g).

### **Rule 278 Exclusions from Exemption**

The permit to install exemption is subject to the exclusions in Michigan Rule 278 [R 336.1278]. The following activities are excluded from using a permit to install exemption:

*(1)(a) Any activity that is subject to prevention of significant deterioration of air quality regulations or new source review for major sources in nonattainment areas regulations.*

*(1)(b) Any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119.*

*(2) Construction of a new major source of hazardous air pollutants or reconstruction of a major source of hazardous air pollutants, as defined in and subject to 40 CFR §63.2 and §63.5(b)(3), national emission standards for hazardous air pollutants, adopted by reference in R 336.1299.*

*(3) Construction or modification as defined in and subject to 40 CFR part 61, national emission standards for hazardous air pollutants, adopted by reference in R 336.1299.*

These specific exclusion criteria are addressed below.

### **Prevention of Significant Deterioration (PSD) Applicability**

PSD regulations apply to the construction of a new major source of regulated air pollutant



emissions or to major sources that undergo major modification as defined in R 336.2801. The stationary source (combined landfill and EDGB processes) is an existing major source relative to PSD.

According to R 336.2823:

*(t) Major modification the following: any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase ... of a regulated NSR pollutant ... and a significant net emissions increase of that pollutant from the major stationary source.*

The Violation Notice alleges that because total sulfur levels in the landfill gas have higher than assumed in U.S. EPA AP-42 concentrations, this is considered a “change in the method of operation” that affects these exempt engines. In fact, there has been no change in the method of operation of the five exempt engines. They have always been (and continue to be) operated as landfill gas-to-energy units. The engines continue to combust landfill gas exclusively from the Citizen’s Landfill. It is true that the landfill gas characteristics can vary over time. But that is typical of a landfill and landfill gas-to-energy operations and is not a change in the method of operation. Accordingly, the normal variation of landfill gas does not trigger PSD.

**Nonattainment Area New Source Review**

The EDGB facility is located in an attainment/unclassified for all criteria pollutants. Therefore, nonattainment area new source review would not be applicable.

**Actual / Significant Emission Increase**

According to Michigan Rule 101 "Actual emissions" means the average rate, in tons per year, at which the process or process equipment actually emitted the air contaminant during the preceding 2-year period and which was representative of the normal operation of the process or process equipment ... For any process equipment that has not begun normal operations, actual emissions shall equal the allowable emissions.

The projected SO2 emissions increase was calculated using 2018 emissions values for the initial engine installation in 1994 (three 3516 engines, EUENGINES1-3), the installation of EUENGINE4 in 2000, and the installation of EUENGINE5 in 2003.

	Maximum Estimated Actual Emission (TPY)						PSD Significant Increase Threshold	Subject to PSD
	1	2	3	1, 2, 3	4	5		
SO2	13.0	12.4	12.4	37.8	11.8	12.8	40	No



No installation project increased emissions above the PSD significant increase threshold.

**Construction or Reconstruction of Major HAP Source**

The yearly HAP output for each engine is 3.30 tons for a single-source pollutant (formaldehyde) and 6.12 tons for total HAP output. No engine installation was qualified as a major HAP source.

**Construction or Modification Subject to 40 CFR Part 61**

The exemptions specified in R 336.1280 to R 336.1290 do not apply to a construction or modification as defined in and subject to 40 CFR Part 61. The engines are not subject to any of the subparts in 40 CFR Part 61.

If you have any questions, please contact me at (517) 896-4417.

Sincerely,

Energy Developments, LLC

A handwritten signature in blue ink, appearing to read 'Dan Zimmerman', is written in a cursive style.

**Dan Zimmerman**

Director of North America HSE & Compliance

Enclosure: Violation Letter Dated March 4, 2019

Cc: Courtney Truett – EDGB (Electronically)  
Cornerstone Environmental Group (Electronically)  
Ms. Mary Ann Dolehanty – MDEQ (Electronically)  
Mr. Eduardo Olaguer – MDEQ (Electronically)  
Mr. Christopher Ethridge – MDEQ (Electronically)  
Mr. Brad Myott – MDEQ (Electronically)  
Mr. S. Lee Johnson – Honigman (Electronically)  
Mr. Khaled Mahmood – Cornerstone Engineering (Electronically)



STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING DISTRICT OFFICE



GRETCHEN WHITMER  
GOVERNOR

LIESL EICHLER CLARK  
DIRECTOR

March 4, 2019

Mr. Dan Zimmerman, Director of North American HSE & Compliance  
Energy Developments, LLC  
608 South Washington Avenue  
Lansing, Michigan 48933

SRN: N5991, Genesee County

Dear Mr. Zimmerman:

**VIOLATION NOTICE**

On March 16, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) received updated 2017 Michigan Air Emission Reporting System (MAERS) emission calculations for Energy Developments Grand Blanc, LLC located at Citizens Disposal, Incorporated, 2361 West Grand Blanc Road, Grand Blanc. The information indicates an issue with emission units on Renewable Operating Permit (ROP) number MI-ROP-N5991-2016 and operating at the gas-to-energy plant, as follows:

Process Description	Rule/Permit Condition Violated	Comments
EUENGINE1 – Caterpillar 3516 landfill gas-fired reciprocating engine located in Plant 1	Rule 201 (R 336.1201) – Permits to Install	The information provided with the MAERS report demonstrate that actual emissions of sulfur dioxide (SO <sub>2</sub> ) from the engine have increased.
EUENGINE2 – Caterpillar 3516 landfill gas-fired reciprocating engine located in Plant 1	Rule 201 (R 336.1201) – Permits to Install	The information provided with the MAERS report demonstrate that actual emissions of SO <sub>2</sub> from the engine have increased.
EUENGINE3 – Caterpillar 3516 landfill gas-fired reciprocating engine located in Plant 1	Rule 201 (R 336.1201) – Permits to Install	The information provided with the MAERS report demonstrate that actual emissions of SO <sub>2</sub> from the engine have increased.
EUENGINE4 – Caterpillar 3516 landfill gas-fired reciprocating engine located in Plant 1	Rule 201 (R 336.1201) – Permits to Install	The information provided with the MAERS report demonstrate that actual emissions of SO <sub>2</sub> from the engine have increased.
EUENGINE5 – Caterpillar 3516 landfill gas-fired reciprocating engine located in Plant 1	Rule 201 (R 336.1201) – Permits to Install	The information provided with the MAERS report demonstrate that actual emissions of SO <sub>2</sub> from the engine have increased.

Mr. Dan Zimmerman  
Page 2  
March 4, 2019

It appears the engines were originally evaluated using U.S. Environmental Protection Agency's *Compilation of Air Pollutant Emissions Factors* (AP-42) emission factors. The reported emissions for the 2017 MAERS were based on gas samples that were collected May 31, 2016. On-going landfill gas sampling is demonstrating sulfur concentrations in the gas that are approximately 16 times the AP-42 concentrations. Please be advised that potential emissions of SO<sub>2</sub> could be greater than 40 tons per year which exceeds the significant threshold and may trigger New Source Review (NSR) for a major modification.

At a minimum, this is a violation of Rule 201 of the administrative rules promulgated under Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451).

A program for compliance includes a completed PTI application for the five (5) Caterpillar 3516 engines. An application has been submitted to address the increase in SO<sub>2</sub> emissions but is deficient and currently off-line. As stated in the additional information request letter dated February 20, 2019:

- 1) Since the increase in total sulfur in the landfill gas is considered a change in the method of operation, and effects the exempt equipment at the facility, the five (5) 3516 engines are part of the project and require permitting, per Rule 201. This includes, but is not limited to, a regulatory discussion (state and federal), control technology discussion, emission calculations (including Volatile Organic Compound (VOC) emissions), equipment parameters and locations. Please provide all calculations, assumptions, and documentation of the applicable requirements and how you intend to comply with items 2- 7 below. *(Items 2 – 7 not included here.)*

Be advised that Rule 201 requires that a permit be obtained prior to installation, construction, operation, reconstruction, relocation, or alteration of any process or process equipment which may be a source of an air contaminant.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by March 25, 2019, (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, Lansing District, P.O. Box 30242, Lansing, Michigan 48909 and submit a copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor at the DEQ, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

Mr. Dan Zimmerman  
Page 3  
March 4, 2019

If you believe 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,



Julie L. Brunner, P.E.  
Senior Environmental Engineer  
Air Quality Division  
517-275-0415

cc: Ms. Mary Ann Dolehanty, DEQ  
Dr. Eduardo Olaguer, DEQ  
Mr. Christopher Ethridge, DEQ  
Ms. Jenine Camilleri, DEQ  
Mr. Brad Myott, DEQ