



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
WARREN DISTRICT OFFICE



PHILLIP D. ROOS
DIRECTOR

December 19, 2023

Matthew Williams
Landfill Resource Recovery Manager
Smiths Creek Landfill
6779 Smiths Creek Road
Kimball, Michigan 48074-3506

Douglas Ayers
Blue Water Renewables, LLC
DTE Vantage
One Energy Plaza, 400 WCB
Detroit, Michigan 48226

SRN: N6207, St. Clair County

Dear Matthew Williams and Douglas Ayers:

VIOLATION NOTICE

On October 10 and 18, 2023, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an inspection of Smiths Creek Landfill (SCL) located at 6779 Smiths Creek Road, Smiths Creek (Kimball), Michigan. The purpose of this inspection was to determine SCL'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); the Air Pollution Control Rules; the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills for Source Categories-Subpart AAAA (NESHAP / MACT 4A) and to investigate numerous complaints we received regarding foul landfill gas odors attributed to SCL's landfill operations.

We have received your responses to the violation notices (VN) issued on October 25, and November 7, 2023 and have determined your responses are inadequate. The VN responses did not provide specific dates to complete the actions proposed and did not fully identify the causes of the violations. The actions proposed to resolve the violations fall short of what is required by the applicable regulations; and the October 25 and November 7, 2023 VNs remain unresolved. In addition, we have reviewed data collected and subsequent weekly updates provided by SCL. Our evaluation has identified additional violations.

The tables below incorporate by reference, VNs issued on October 25 and November 7, 2023, clarify and expand upon the previous VNs, and identify additional violations.

**Table 1: Violations for SCL
 (Section 1 of ROP No. MI-ROP-N6207-2018)**

Rule/Permit Condition Violated	Comments
Michigan Admin. Code Rule 336.1901 "Rule 901"	Verified SCL as the source of Rule 901 level odors. (See Reference 1)
NESHAP / MACT 4A 40 CFR 63.1958(d)(1) 40 CFR 63.1958 Operational standards for collection and control systems Michigan Admin. Code Rule 336.1910 "Rule 910"	Failed to design and operate the gas collection control (GCCS) system as the methane concentration was detected above 500 parts per million (ppm) above background at the surface of the landfill. Applied vacuum to the GCCS is inadequate particularly during periods when gas engines were shutdown and at Cell 8. Quarterly surface emission monitoring (SEM) surveys are not covering all areas where the GCCS is present. (See Reference 2)
40 CFR 63.6 (e)(1)(i) 40 CFR 63.1955(c) 40 CFR 63.1962(b)(2)	Impaired wells in cell 3 and the interim cover portion of the landfill based on wellhead data. (See Reference 3)
40 CFR 63.1962(b)(2) 40 CFR 63.1962(a)(3) 40 CFR 63.1959(b)(2)(ii)(B)(1) 40 CFR 63.1959 NMOC calculation procedures	Failed to design an active collection system to handle the maximum expected gas flow rate from the entire area of the landfill. (See Reference 3)
40 CFR 63.1960(c)(5)	Not noted or addressed on the monthly integrity monitoring for closed portion of the landfill contains standing water and dead vegetation. Some of these areas coincided with SEMs exceedances. (See Reference 3)
R 336.1201 – "Rule 201" Permit to Install	Failed to satisfactorily demonstrate the non-enclosed combustor (open flare) installed on-site is exempt from an air-use permit.
40 CFR 63.1955(c)	Failed to operate associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. (See Reference 3)

Rule/Permit Condition Violated	Comments
40 CFR 63.1958(e)(1)	Failed to operate the GCCS such that all collected gases are vented to a control system.
40 CFR 63.1962(c)	Failed to ensure the gas mover equipment was sized to handle the maximum gas generation flow rate expected as the landfill gas was not conveyed through the collection header pipe.
40 CFR 63.1981(e)	Failed to revise the design plan prior to expanding the GCCS in a way not consistent with the design plan submitted.

**Table 2: Violation for Blue Water Renewable Energy Plant
 (Section 2 of ROP No. MI-ROP-N6207-2018)**

Rule/Permit Condition Violated	Comments
40 CFR 63.1959(b)(2)(iii) 40 CFR 63.1959(b)(2)(iii)(D)	Collected landfill gas sent to a control system that does not comply with the federal standard. Landfill gas condensate is being vented to atmosphere which is creating foul odors.

Reference 1:

On October 10 and 18, 2023, EGLE staff detected intense landfill gas sulfur odor continuously at various locations, downwind of SCL of sufficient intensity and duration to be considered a violation of Rule 901. The Rule 901 violation is further corroborated by elevated methane and hydrogen sulfide (H₂S) surface concentrations. Methane readings of 500 ppm or more above background at any location is considered an exceedance per 40 CFR 63.1958 or 40 CFR 63.1960. Please refer to the SEM inspection letter dated October 31, 2023 (SEM letter).

Reference 2:

On October 18, 2023, methane exceedances were identified during the SEMs inspection along with measurable hydrogen sulfide emissions. SCL failed to detect these leaks via monitoring required under 40 CFR Part 63.1958(d).

SCL also excluded Cell 8 from SEM inspections despite a GCCS in place and being a location identified as the main source of odors. This exclusion violates AQD Rule 910 which requires air pollution control equipment is installed and operating properly. According to data provided, Cell 8 is considered an active system with approximately 600 standard cubic feet per minute (scfm) of flow. Emissions generated from that system are required to be captured and controlled. The GCCS, comprised of various collectors and vacuum lines, is the method of conveyance of emissions to the control device(s). SEM inspections are the appropriate way to

demonstrate the capture and control equipment are operating properly. Wellhead data and system vacuum data, referenced in the SEM letter, provides additional evidence of a compromised control system. This is indicative of air pollution control equipment not operating in a satisfactory manner in accordance with Rule 910.

Reference 3:

Wellhead data reviewed and referenced in the SEM letter, identifies multiple collection wells as being vapor locked, flooded, or otherwise impaired (i.e., wells that are low flow, high percent methane, have similar applied/available vacuum). 40 CFR 63.1962(b)(2) requires that vertical wells be constructed in such a manner as to address the occurrence of water within the landfill. SCL failed to propose how these wells will be investigated and remediated. Finally, the SEM letter identified surface emissions problems in the final cover portion of the landfill. This was a repeat finding from a prior Materials Management Division (MMD) inspection conducted on June 28, 2023.

Additionally, LandGEM gas generation curves submitted during the ROP renewal show gas generation rates at 9,178 actual cubic feet per minute (acfm) in 2023. According to an equipment inventory review, the collective control capacity is not adequate to handle the maximum gas generation. The inadequacy of the collective control capacity has necessitated further actions by SCL to address the issue, like installation of a rental flare and header for gas interceptor.

Based on SCL's inadequate VN responses, we require implementation of a more quality assured/effective SEM program. An effective SEM program and compliance plan is designed to address the violations identified and includes documented corrective actions and their outcomes. An appropriate compliance plan is required to resolve these violations. Elements of an effective SEM program include, but are not limited to, the following:

- a) Survey of all areas of the landfill inside the limits of the waste disposal boundary in accordance with 40 CFR 63.1958(d)(1).
- b) Problem areas identified during the monthly cover integrity inspections required under 40 CFR 63.1960(c)(5) should be surveyed during SEM inspections and the results documented.
- c) Ensure SEMs are conducted where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover are observed in accordance with 40 CFR 63.1958(d)(1).
- d) Document all SEM hits via photography and location after it has been addressed. It should be clear in the documentation how each SEM exceedance was resolved.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by **January 9, 2024** (which coincides with 21 calendar days from the date of this letter). The written response should include:

- dates the violations occurred
- explanation of the causes and duration of the violations
- whether the violations are ongoing
- 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.
- what steps are being taken to prevent a reoccurrence

In your response, please provide a schedule of tasks, activities, constructions, installations, etc., in the following or similar format:

Task/Activity	Completion Date	Comments	Subtask	Completion Date	Comments

Also, as part of your response, please provide records/evidence to show that SCL is in compliance with the provisions of federal Subpart M-National Emission Standard for Asbestos 40 CFR 61.154(b)(1) and 40 CFR 61.154(f). This should include photos of Asbestos warning signs (if any) in place at the landfill and a map(s) showing all historical asbestos disposal locations at the landfill.

Please submit the written VN response to Iranna Konanahalli at EGLE, AQD, Warren District, at 27700 Donald Court, Warren, Michigan 48092 and KonanahalliI@Michigan.gov and submit a copy to Jenine Camilleri, CamilleriJ@michigan.gov, Enforcement Unit Supervisor at EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If SCL or Blue Water Renewable Energy Plant believes the above observations or statements related to their operations 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 EGLE staff during the investigation. 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.

Matthew Williams
Douglas Ayers
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Sincerely,



Iranna Konanahalli
Senior Environmental Engineer
Air Quality Division
586-596-7630

cc: Erin Berish, CTI Companies
Laura Neiman, EIL
Annette Switzer, EGLE
Christopher Ethridge, EGLE
Brad Myott, EGLE
Jenine Camilleri, EGLE
Joyce Zhu, EGLE
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