STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

February 7, 2019

CERTIFIED MAIL
7016 1370 0001 4688 2891

Mr. Robert Walls
Advanced Disposal Services, Arbor Hills Landfill Inc.
10833 West Five Mile Road - Building B
Northville, MI 48168

SRN: N2688, Washtenaw County

Dear Mr. Walls:

VIOLATION NOTICE

On January 18, 23 and 29, 2019 the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Advanced Disposal Services, Arbor Hills Landfill Inc. (Company) located at 10690 West Six 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 Permit to Install (PTI) permits 19-17B & 79-17.

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

Process Description	Rule/Permit Condition Violated	Comments
Emission units EULANDFIL-S2, EUACTIVECOLL-S2, FGENCLOSEDFLARES-S2, and EU5000CFMFLARE which comprise the landfill, the landfill gas collection system and the flaring systems.	40 CFR Part 63 – National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR 63.6(e)(1)(i), 40 CFR Part 60 – Standards of Performance for New Stationary Sources 40 CFR 60.11(d).	**Prompt action by the Company is requested.** The owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times, including periods of startup, shutdown, and malfunction. See discussion below.

The Company operates a gas collection and control system (GCCS) at the Arbor Hills Landfill. The GCCS consist of approximately 400 active gas wells. The collected landfill gas is routed to a landfill gas-to-energy (LFGTE) facility owned by Arbor Hills Energy LLC (AHE) with backup flares owned by the Company to be used in the event of an outage at the LFGTE facility. AHE is currently burning approximately 10,000 standard cubic feet per minute (scfm) of landfill gas in their 4 gas turbines and is at or near record levels of production.

At the start of 2018, the backup flare system consisted of two enclosed style flares with combined rating as determined by stack test of 6145 scfm that were located on the South side of the landfill next to the AHE facility and a temporary candlestick flare rated at 3000 scfm on the North side of the facility. (This gives a combined flaring capacity of 9145 scfm.) This temporary flare and associated blower had been installed since March 2017 to address an issue of inadequate vacuum being applied to wells in the NW part of the landfill due to restrictions in the gas piping system that directs gas to the AHE facility nearly a mile away. This issue had been contributing to the well documented odor problem at the landfill.

Review of 2018 landfill gas data consumed at the AHE facility and the amount of landfill gas consumed by the flares during partial or complete shutdowns of the turbines and associated blowers at AHE showed that the flaring generally consumed less than 90% of the expected gas production that would have occurred if the AHE had been operating at the production rate that was occurring just prior to a plant outage. An adequately designed/properly operated flaring system should be able to provide the same level of vacuum to the wellfield and capture/burn similar levels of landfill gas as the LFGTE facility.

In early August 2018, the Company completed connection of a 36" pipe into the LFGTE facility which completed the connection to the upgraded perimeter piping system. This dramatically increased the landfill gas flowing to the AHE plant and reduced the required vacuum that needed to be applied at AHE on the wellfield due to the remedied pressure bottleneck under the railroad tracks. It also served to reduce the effectiveness of the temporary flare as the vacuum draw from the AHE facility blowers and enclosed flares competed with that of the temporary flare. After this point in time, the Company operated the temporary flare less and when it did operate, it operated at reduced capacity.

In early September 2018, the Company began construction/reconstruction of the landfill gas piping system and the associated blower system that supplies landfill gas to the two enclosed style flares. This construction project also included a tie in of the new 5000 scfm candlestick style flare using a common set of new blowers shared with the existing enclosed flares.

On November 17, 2018, the new 5000 scfm flare began operation. On December 17, 2018, the DEQ received an email (and subsequent emails) from the Company describing the blower related issues that had developed. The email stated:

"When we were in the process of commissioning the control system and when we tried to bring the 5,000 SCFM blowers online, the blowers would over-amp. They simply could not run and supply the required flow to the system. On December 6, 2018, the company that constructed the blowers (Lonestar), had a technician come on-site to see if he could diagnose the problem. The Lonestar technician could not determine why the blowers were over-amping and his initial thought was that the motors were under-sized. The Lonestar engineers went back and re-calculated their numbers to see of that truly was the issue and they deemed that the way the blowers were designed should be sufficient for our needs. On December 13, 2018, Lonestar requested that we send back one of the blowers so that can take a closer look at the blower and the motor separately to assure there is not an issue.

Lonestar initiated diagnostic testing on January 7th. As of the date of this response, Lonestar still has not definitively determined the cause of the over-amping and has requesting assistance from the motor vendor for the blowers. They are also evaluating options for reconfiguring the blower assembly to reduce the electric startup requirements causing the over-amping without compromising blower performance. Once their assessment is complete and provided to ADS we will update DEQ on their status."

The onsite inspection conducted in January 2019 confirmed that the blower issues were affecting operation of all 3 flares located on the south side of the landfill. Company personnel estimated that the total flaring capacity of these 3 flares combined was no more than 3000 scfm since they could not operate the blowers at full capacity due to the over-amping problem. The Company also confirmed that in the event of a power outage, the flaring system would be disabled. The Company has no back-up generators capable of supplying enough power to the control room or the flare blowers nor is the system setup to wire in back-up power. The adjacent AHE facility also does not have back-up generators so a power outage would prevent operation of the turbines and associated blowers. Due to the close proximity of the AHE facility and the flaring system, it appears likely that any power outage would affect both facilities simultaneously.

On January 29, 2019, the temporary flare on the North side of landfill was permanently disabled in accordance with the termination date in PTI 19-17B. At last report from the Company, the blower problem had not been resolved and there was no indication of when the blower would be fixed. As of now, in the event of an outage at AHE, the Company would not be able to provide more than 3000 scfm of flaring backup. In the event of a power outage, the Company would have no backup flaring capacity. This represents a shortfall of between 7,000 and 10,000 scfm of landfill gas. An outage at

AHE and inadequate back-up flaring would likely result in highly odorous emissions from the surface of the landfill itself which could impact nearby residents.

The amount of time that has elapsed to resolve the blower issue is considered unacceptable. The AQD is requesting that the Company take **prompt action** to fix the blowers to restore flaring capacity in a manner consistent with safety and good air pollution control principles for minimizing emissions to prevent the possibility of any negative impacts on nearby residents in the event of an outage at the AHE facility. Furthermore, the Company needs to install a properly sized back-up electrical generator system for the flares.

Please initiate actions necessary to correct the cited violation and submit a written response to this Violation Notice by February 14, 2019 (which coincides with **7** calendar days from the date of this letter). The written response should include: the dates the violation occurred; an explanation of the causes and duration of the violation; whether the violation is 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.

Please note that an additional Violation Notice(s) may result from the January 2019 inspection after the AQD has reviewed follow-up information that Company indicated they would provide by February 28, 2019.

Please also note that the Company is advised that Administrative Order EPA-5-17-113(a)-MI-04 issued May 4, 2017, Paragraph 27 states "Respondent must demonstrate and maintain compliance with the Landfill NSPS, the Landfill NESHAP, the NSPS and NESHAP General Provisions and the facility ROP at the Landfill facility".

Thank you for your attention to resolving the violation cited above and for the cooperation that was extended to me during my inspection of this Company. If you have any questions regarding the violation 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:
Ms. Mary Ann Dolehanty, DEQ
Mr. Jay Olaguer, DEQ
Mr. Christopher Ethridge, DEQ
Ms. Jenine Camilleri, DEQ
Mr. Scott Miller, DEQ

cc/via e-mail:
Mr. Jay Warzinski, Vice President LF Operations, Advanced Disposal Services
Mr. Bob Walls, Advanced Disposal Services
Mr. Anthony Testa, Advanced Disposal Services
Mr. Nathan Frank, USEPA
Mr. Kenneth Ruffatto, USEPA
Ms. Mary Ann Dolehanty, DEQ
Mr. Jay Olaguer, DEQ
Mr. Chris Ethridge, DEQ
Mr. Scott Miller, DEQ
Ms. Jenine Camillari, DEQ
Mr. Jeff Rathbun, DEQ
Ms. Diane Kavanaugh Vetort, DEQ
Mr. Lonnie Lee, DEQ
Mr. Larry Bean, DEQ
Mr. Greg Morrow, DEQ
Ms. Alexandria Clark, DEQ
Ms. Melinda Shine, DEQ