

ARBOR HILLS LANDFILL, NORTHVILLE MICHIGAN

Summary of Actions: July 2019 – October 2019

Background

In January 2016, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) began receiving odor complaints from residents living near the Arbor Hills Landfill (Landfill). EGLE immediately engaged with the Landfill's operators to address these odor concerns. Fugitive emissions of landfill gas were found to be the source of most of the odors. EGLE and the U.S. Environmental Protection Agency (USEPA) conducted investigations of the Landfill. Based on these investigations, EGLE has issued multiple violations and is currently engaged in an enforcement action against the Landfill for failure to properly operate the Landfill and the gas collection and control system. Over the last year EGLE has been attempting to finalize a settlement agreement that outlines a long term compliance plan to control fugitive landfill gas emissions, but the company has yet to agree to these necessary measures to control fugitive landfill gas emissions. EGLE staff have continued to conduct on-site inspections and area odor evaluations of the Arbor Hills Landfill owned by Advanced Disposal Services (ADS) and the adjacent landfill gas to energy plant owned by Arbor Hills Energy LLC (AHE); a subsidiary of the Fortistar Methane Group. EGLE continues to respond to hundreds of odor complaints being filed by residents near the Landfill.



EGLE Actions

- 7/23/19 EGLE Air Quality Division (AQD) staff used a temporary H₂S emission monitoring station just east of Napier Road but still on landfill property. A link to the data collected will be provided later. All measured concentrations during this and other usages of the station over the summer were well below health-based screening levels but sometimes above odor thresholds.
- 8/01/19 AQD letter to ADS requested additional data be added/reported in the monthly reports.
- 8/14/19 AQD [on-site inspection](#). AQD inspected the elevated temperature subsidence area on the northside of the landfill. No further subsidence was noted. Landfill gas and compost odors were detected on-site and moderate odors were detected downwind off-site on perimeter roads. H₂S was monitored using a Jerome H₂S meter. Some areas of elevated H₂S were noted onsite, but offsite concentrations were all below health-based criteria. At the request of EGLE, ADS continued work on known significant odor sources.
- 08/15/19 EGLE AQD, Materials Management Division (MMD) and US EPA [on-site inspection](#). EPA's ETLF technical expert met with ADS and inspected the ongoing elevated temperature area. Numerous ADS personnel were present for the pre-planned visit in order to review well data and observe the ADS and Fortistar

technician conducting well monitoring. ADS provided maps showing the historic disposal locations of a lime-based waste which is a suspected cause of the elevated temperatures.

- 08/28/19 EGLE [on-site inspection](#). AQD discussed garbage odors detected off-site while conducting an odor observation prior to the inspection. Odorous waste receipt issues were discussed. Deodorant systems were discussed as a potential odor control at the active face and ADS is researching a product right now. ADS presented an update on construction projects, primarily horizontal landfill gas collectors in various areas identified to have landfill gas emissions. Some leachate treatment has been installed and more is planned. Review of the temperature data showed that all subsurface temperatures were no higher than 175 degrees F. This and other data collected suggests that the ETLF event is not significant enough to warrant further corrective action at this time. EGLE and ADS will continue to monitor the situation.
- 09/16/19 MMD letter to ADS following inspection report. Requested schedule to complete compliance activities to return to compliance related to the MMD [1/24/19](#) and 5/9/19 Violation Notices (VN). The VN's are associated with excessive of amounts of leachate sitting above a landfill liner and ongoing methane exceedances of the lower explosive limit (LEL) of numerous probes at the property boundary. A Liquids Management Plan was submitted by ADS but not approved by EGLE, a more robust plan and maintenance schedules are required as part of the Order.
- 09/25/19 EGLE [on-site inspection](#) Odor sources were inspected and corrective action updates were obtained. Specifically, the various ongoing odor control construction projects were observed. A new sump was installed which has twice the pumping capacity as the previous sump and is properly collated with the underground source of the leachate. Odors from this area have significantly decreased. Work was continuing on the West Haul Road, which is the source of fugitive gas emissions and associated odors.
- 10/21/19 Reviewed 3rd quarter liquid level report the company submitted to EGLE. AQD issued a VN to ADS on [10/21/19](#), citing improper operation of the gas collection and control system (GCCS) due to excessive water in the landfill gas extraction wells. AQD alleges that ADS is not operating or maintaining vertical gas collection wells in a manner consistent with good air pollution control practices.
- 10/22/19 EGLE on-site meeting and inspection, Day 1. US EPA Region V Compliance staff participated. EPA brought their Geospatial Measurement of Air Pollution (GMAP) vehicle to measure volatile organic compounds, methane, and H₂S. The GMAP vehicle independently conducted sampling on landfill roads, perimeter roads, and in the community during the several days they were here. An EPA report on the data collected during the recent GMAP survey will be posted online when the report is finalized. Preliminary review of the data did not show any health concerns. EGLE discussions with ADS included recent VN for watered in wells, and related leachate management. EPA also discussed details of waste receipts and Fortistar's ongoing non-compliance and permitting issue.
- 10/23/19 EGLE and EPA on-site meeting and inspection, Day 2. ADS coordinated a presentation given by Sniffer Robotics LLC highlighted by demonstrating drone technology for the purpose of conducting methane surface emission detection surveys. During the demonstration, the drone was successfully able to locate sources of surface methane emissions that were later confirmed by EPA using their own handheld instrumentation.

Odors and Other Compliance Items

- During this period EGLE conducted 12 (includes 3 MMD and 9 AQD) facility inspections and area odor observations (See inspection details under EGLE ACTIONS).
- During the period (July through October) EGLE received approximately 677 odor complaints.

Elevated Temperature Landfill Issue

During the previous period there were 5 Odor Sources identified. All of these have now been corrected except for the ETLF and the active face issues.

EGLE continues to receive monthly reports for the ETLF. At this time the reports will continue to be submitted for a second 6-month period.

On 08/15/19, EPA assisted EGLE with the ETLF inspection and evaluation of reports received (see also EGLE Actions [08/15/19](#)). It appears that the area has stabilized, and no other adverse symptoms have occurred. However, based on EGLE's review of the well data liquid levels in the landfill and the wells have had a significant impact on the GCCS. It is unclear currently how this is impacting the ETLF. EGLE issued a VN related to this (see EGLE Actions [10/21/19](#)) and is requiring enhanced monitoring and other corrective actions to reduce these levels.

Enforcement Update

EGLE is actively engaged in escalated enforcement to resolve the ongoing violations at the landfill and the gas to energy plant and ensure corrective actions are taken to prevent future violations. EGLE continues to negotiate a settlement agreement with ADS and held additional enforcement meetings with the company in April and October 2019. Given the ongoing noncompliance at the landfill, the settlement negotiations are prolonged to ensure that the escalated enforcement action effectively addresses and resolves the violations at the landfill and concerns of the nearby community. As a result, EGLE enforcement negotiations are still ongoing but as of the date of this update, EGLE and ADS have not reached agreement.

Additionally, US EPA and EGLE are jointly taking an enforcement action against Fortistar to resolve ongoing violations.

Overall, EGLE enforcement negotiations are still ongoing but as of the date of this update, EGLE and ADS have not reached agreement.

Fortistar Gas Plant Permits Update

08/06/19 Fortistar Methane Group, Arbor Hills Energy, LLC (gas to energy plant) submitted a Permit to Install application.

08/26/19 AQD Permits Section held a meeting with Fortistar and consultants to discuss the current application and related compliance issues.

09/16/19 AQD Permits Section held a conference call with Fortistar consultants in response to an email correspondence related to the current application and in preparation for the meeting scheduled for 9/18.

09/18/19 AQD Permits Section held a meeting with Fortistar and consultants to discuss the current application and related compliance issues.

10/25/19 Fortistar Methane Group, Arbor Hills Energy, LLC (gas to energy plant) submitted a Permit to Install application. Permit Engineer preliminary review showed it lacked certain basic information necessary for AQD to begin our review. A letter was sent to Fortistar dated 11/5/19 with a deadline of 12/2/19 to submit the required information or the application will be returned to them.

More Information and Assistance

EGLE has developed a website specifically to keep the community updated on the issues involving Arbor Hills Landfill – Michigan.gov/ArborHills. You are also encouraged to register to be part of our e-mail listserv. This is another way EGLE hopes to provide up-to-date information to interested parties. Go to our website to sign up, Michigan.gov/egle, click on the red envelope at the bottom of the page and then choose “Arbor Hills.”

Complaints or other concerns may be directed to Arbor Hills using their Community Hotline at 248-305-8432 or their web site at ArborHills.info. Complaints received through the Arbor Hills website are automatically forwarded to EGLE. You may also contact EGLE directly by calling our Environmental Assistance Center at 800-662-9278 or by filing out our EGLE Online Complaint Form located at Michigan.gov/ArborHills.

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.