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February 14, 2019

AIR QUALITY DIVISION

Mr. Mike Kovalchick Michigan Department of Environmental Quality – Air Quality Division Jackson District Office Jackson State Office Building 301 Louis Glick Highway Jackson, Michigan 49201

Subject:Advanced Disposal Services – Arbor Hills Landfill, Inc.Response to Notice of Violation Dated February 7, 2019

Dear Mr. Kavolchick:

10690 W Six Mile Road

This letter responds to the Violation Notice ("VN") dated February 7, 2019 concerning delays we recently encountered in upgrading the landfill gas blower system at the Arbor Hills landfill. The VN alleges that Arbor Hills is not instituting these improvements consistent with "good air pollution control practices" because of these delays. The VN observes that 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 VN then requests 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."

The short answer to the VN is that the DEQ has Arbor Hills' commitment to take all appropriate measures to remedy the blower issues as soon as possible.¹

Please note that one of Advanced Disposal central initiatives when it took over the gas collection system in 2017 was to upgrade the gas collection system and to increase flare capacity as backup to the Fortistar Renewable Energy Facility that serves as the primary system for destruction of the landfill gas. It was Advanced Disposal that moved a temporary flare to the site at the end of 2016 and then pushed through the permitting and installation of the new 5,000 cfm flare. Although not part of the original scope of work associated with the installation of the 5,000 SCFM candlestick flare, Advanced elected to invest an additional \$500,000 in the control system and blower upgrade to improve collection efficiency during periods when landfill gas was not being fully utilized by

¹ Although Advanced Disposal is working to remedy the blower issues, it reserves the right to assert any and all factual, equitable or legal defenses it may have to the asserting within the VN.

Fortistar as well as to automate the start-up of the blower flare compound when components of the plant go down or DTE requires the plant to go off line. Given the effort and cost expended by Advanced Disposal to upgrade the flare system, we too are frustrated with the current state of affairs, though as set forth below, we have an aggressive plan to fix the problem.

Blower Building Renovation

Arbor Hills submitted a permit application for the 5,000 SCFM flare in April 2017, the permit to install this flare was issued in April 2018. At that time, Arbor Hills had already initiated the 24 inch header upgrades and installation of the 36 inch pipe beneath the tracks of the railroad right of way. Arbor Hills was also in the process of re-designing the piping and infrastructure upstream of the blower building and flare compound. Upon further assessment of the blowers inherited by Arbor Hills through the Republic transaction it was determined that the conditions of the blowers and control system would require significant reconditioning to insure long-term performance and reliability. The decision was made at significant costs to order the new blowers and control system. The blowers were ordered in May. Due to the delivery lag on the new blowers, the interior portion of the blower building renovation and work to complete the control system and blower upgrades commenced on November 2, 2018. Prior to commencement of the blower building renovation, the time that was required to complete the project was communicated to the DEQ. Subsequent to the blower building renovation, Unison Control Solutions (Unison) came onsite to initiate the commissioning of the flares and blowers to assure proper function.

Unfortunately (and as previously communicated to the DEQ), during commissioning in early December, issues with the blowers became evident – they could not sustain operation at normal load and this concern was promptly communicated to Lone Star Blowers, Inc., the blower manufacturer. Since that time, Arbor Hills has been diligently trying to work through the issue with Lone Star. As it became evident to Advanced Disposal that Lone star was not going to be capable of timely remedying the blower issues to satisfy the intended design standard, Advanced Disposal has now had to elect an alternative manufacturer for a permanent resolution but continues to devote substantial resources to obtain as much operational capability on interim basis within the shortest possible time frame.

Actions Taken

Prior to receipt of the VN, Advanced Disposal had already begun implementing actions to restore blower capacity. Because of the circumstances, Advanced Disposal has had to put in place both long-term and short-term fixes to the blower capacity issue.

Long-Term Fix

On Friday, February 8, 2019, Arbor Hills ordered 3 new 4000 cfm, -100" wc inlet/+20" wc outlet, 125 hp blowers from a different blower manufacturer, Continental Blower.

Arbor Hills has asked for expedited fabrication and shipment of the new blowers. We will provide a shipment date to the DEQ as soon as we receive one from Continental. Typically, upon order, lead time for fabrication and delivery of new blowers is 12-16 weeks

Short-Term Measures

In light of the lead-time for shipping and installing the replacement blowers, Arbor Hills is also implementing the following interim measures:

- Currently, ADS has 2 blowers installed and operating that are capable of achieving 3,100 scfm.
- On Monday, February 11th, Arbor Hills received an interim 3,600 scfm blower from Lone Star. While the unit can be energized immediately, the arrangement of the inlet and outlet of this blower relative to the newly installed manifold requires customized fittings be modified or fabricated. We anticipate that this work will be completed on Monday February 18, 2019 and the unit operational on February 19, 2019.
- Also on February 11, Arbor Hills received a 3,000 scfm blower from an intercompany, out-of-state, landfill. Installation of the 3,000 scfm will immediately begin subsequent to the installation of the 3,600 scfm blower. The blower setup is slightly different from the blowers originally ordered so piping is being modified to allow for connection to the recently installed inlet and outlet manifolds. We anticipate that this work will be complete by the end of the day on Friday, February 15, 2019 and the unit operational on Tuesday, February 19, 2019.
- By early March, Arbor Hills expects to receive an additional interim 3,600 scfm blower from Lone Star. Advanced is already evaluating the blower arrangement relative to the manifold for this blower in order to fabricate the custom fittings to allow for installation of this unit upon receipt. Barring any unforeseen circumstances installation and commissioning will take 48-72 hours.
- While not required by any identifiable permit condition or federal or state regulation, Arbor Hills appreciates DEQ's concern regarding the need for an emergency generator in the event of a power outage. Arbor Hills will install an inter-connect system to the power panel to allow acceptance of a back-up generator, as needed. In general, if power is lost at the blower and control building, a generator will be rented and connected to the system. It would be appreciated if the DEQ would confirm that under Rule 285 such a generator would not require a permit to install if heat input is less than 10,000,000 Btu/hour.
- On Friday, February 8, Arbor Hills shipped the existing blowers that were removed from the blower building during renovation to Berryman Equipment Company to be re-built. Based on the extensiveness of the repairs, the turnaround

time to complete the work is estimated to be 7-14 days from today's date and an additional 1-2 days for shipment.

• Also on Friday, February 8, 2019, Arbor Hills ordered two new 150 Hp motors. Upon placement of the order, motors have an estimated 8-12 week lead time for delivery. The new motors will be utilized as replacement motors and implemented as needed.

In summary, ADS can achieve 3,100 scfm with the 2 blowers that are currently installed. With the additional 3,000 scfm and 3,600 scfm blowers to be installed as part of the short term fix, the total back-up capacity would achieve 9,700 scfm. Unfortunately, actual performance must await start-up.² ADS will continue to evaluate the need for additional temporary blowers.

The work originally initiated by Arbor Hills in November 2018 to replace the existing blowers was to provide 12,000 scfm of design blower capacity. This can only be achieved through matching the blowers and control system so as not to inhibit the performance of any one blower in the arrangement. These are complex systems that require harmonization for efficient landfill gas collection and we have not identified any viable alternative other than asking a new vendor to provide new blowers that will be several months in the making. In the interim Arbor Hills is assembling as much infrastructure as it can to ensure as much back up landfill gas collection as possible. In this regard, it should be noted that the conveyance system upgrades that have been made (24 inch and 36-inch header) have achieved the objective of improving landfill gas collection throughout the landfill footprint.

If you have additional questions, please contact me at 248-412-0704.

Sincerely, ADVANCED DISPOSAL SERVICES ARBOR HILLS LANDFILL, INC.

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Bob Walls General Manager

cc:

Jenine Camilleri Enforcement Unit Supervisor Michigan Department of Environmental Quality P.O Box 30260 Lansing, Michigan 48909-7760

 $^{^2}$ Advanced Disposal has sought permit authorization to allow for continued operation of the 3000 scfm temporary flare that would provide some additional capacity.

cc: (via e-mail)

Jay Warzinski – Advanced Disposal Services Randy Frank – Advanced Disposal Services Bob Walls – Advanced Disposal Services 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

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