STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

January 24, 2019

Mr. Bob Walls
General Manager
Advanced Disposal
10833 Five Mile Road, Building B
Northville, Michigan 48168

Dear Mr. Walls:

SUBJECT: Annual Comprehensive Inspection FY 2018 – Violation Notice (VN)
Arbor Hills Landfill; Facility ID 391215

On December 20, 2018, staff of the Department of Environmental Quality (DEQ), Waste Management and Radiological Protection Division (WMRPD), conducted an annual comprehensive inspection and an operating record evaluation, of the subject landfill facility (Arbor Hills), located in Northville, Michigan, to evaluate compliance with Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, Michigan Compiled Law, Section 324.11501 et seq.

The following forms and checklists were used during the comprehensive inspection and are enclosed:

1. Part 115 Annual Landfill Operations Checklist
2. Type II Landfill Operating Record Evaluation Report
3. Part 115 Landfill Evaluation Report
4. Annual Hydrogeologic Checklist
5. Well Inspection Form

WMRPD staff have the following areas of concern based upon the comprehensive inspection and subsequent review of recent operating records:

- During the inspection, the leachate level in the Primary Leachate Collection System (PLCS) was 326.0 inches, and levels in the Secondary were 18.6 inches. This is a violation of substantial concern since the allowable leachate level in the PLCS is 60 inches. In order to return to compliance, Arbor Hills must properly address the head levels of the leachate collection system.
- There have been continuous exceedances of the Cell 4 allowable action flow rate (AFR) of 5 gallons/acre/day, with an average AFR of 18.98 gallons/acre/day in August and 20.24 gallons/acre/day in September. The facility has not initiated a liquids management plan (LMP) or provided a demonstration pursuant to R 299.4432(3)(d).
- Existing operational procedures and best management practices have not been consistently followed when handling odorous contaminated soil. For example, the presence of odorous contaminated soils observed on top of the landfill during the inspection should have been covered or buried quickly to prevent the possibility of this

soil to cause a nuisance odor. This odorous soil should have been screened for odors at delivery. In addition, pursuant to R 299.4429(5), soil with a strong odor does not meet the performance standards for alternate daily cover and could not be used for that purpose. The odor control plan should include contaminated soil management procedures to reduce the risk of causing nuisance odors.

- The DEQ continues to receive odor complaints from residents located primarily to the northeast and east of Arbor Hills. Nuisance odors are believed to originate from garbage, landfill gas, and composting. Pursuant to R 299.4434 the owner and operator of a type II landfill shall insure that the unit is not in violation of any applicable requirements developed under Part 55, Air Pollution Control, of the NREPA.
- Ongoing methane exceedances of the lower explosive limit (LEL) at the property boundary have been consistently observed during the colder months (October-March). Probes 14, 16R, and 28R2 are consistently reading >100% LEL. The methane exceedances at the property boundary must be addressed in a manner that alleviates this issue. Additional efforts beyond the actions listed in the 2002 Consent Order and 2018 Arbor Hills Landfill Gas Migration Remedial Action Plan Twelve Month Monitoring Report are necessary to reduce the soil gas methane on the east side of the landfill to a level below the 100% LEL.

Based on the comprehensive evaluation of the operating record and observations made on December 20, 2018, inspection, Advanced Disposal (AD) is in violation of the following provisions of Part 115 administrative rules:

1. **R 299.4432(1)** The owner and operator of a type II landfill shall remove leachate from a disposal unit as frequently as necessary to ensure that the leachate depth on the liner, excluding the sump, is not more than 1 foot, except after a significant storm event. The leachate depth on the liner shall not be more than 1 foot 7 days after a significant storm event. A significant storm event is a storm that generates 0.1 inches or more of rainfall in 24 hours.
2. **R 299.4432(3)(a)** requires the owner and operator of a sanitary landfill that contains a secondary collection system shall remove pumpable liquids in the secondary collection system sumps on a frequency that is sufficient to minimize the head on the bottom liner.
3. **R 299.4432(3)(d)** states in part if the average daily flow rate removed from the sump of a secondary collection system during any month averages more than the action flow rates specified in sub rule (4) of this rule, do one of the following within 30 days of the end of the month in which the exceedance occurred:
    i. Initiate a LMP to reduce the flow in the secondary collection system and the potential impact of this flow and place the LMP in the operating record, and for unmonitorable units, comply with the leak detection requirements of R 299.4437. A LMP may provide for increasing the frequency or rate of leachate removal, the suspension of leachate reintroduction, the application of interim cover to reduce leachate generation, or other actions which are appropriate to reduce the flow rate in the secondary collection system. The owner and operator may discontinue actions under a LMP if the average daily flow rate in a subsequent month no longer exceeds the AFR which initiated the action.
    ii. Demonstrate to the director that the flow in the secondary collection system is due to construction or consolidation water from the primary liner and not by excessive leakage from the landfill cell. The demonstration shall be certified by a registered professional engineer. In the event the director denies this

demonstration, the owner and operator shall initiate a LMP within 30 days of the denial.

4. **R 299.4433(1)(b)** requires the owner and operator of a type II landfill shall ensure that the concentration of methane gas is not more than the lower explosive limit at or beyond the facility property boundary.

Arbor Hills must take prompt action to address the leachate level and AFR of Cell 4. A plan is needed to reduce gas migration into the soil east of the landfill. The operational procedures and best management practices need to be upgraded and implemented to reduce the potential for offsite odors. The DEQ acknowledges AD's December 6, 2018, odor control plan submittal which is under review and will be responded to in a separate correspondence. *A response that includes the proposed actions to correct the violations and concerns outlined above is required by March 1, 2019.*

The issuance of this VN does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action under state or federal law, as deemed appropriate.

The DEQ anticipates and appreciates your cooperation in resolving this matter. If you have any questions, please contact me at DEQ-WMRPD, Jackson State Office Building, 301 East Louis Glick Highway, Jackson, Michigan 49201; by telephone at the number below; or by e-mail at BEANL@michigan.gov.

Sincerely,

Lawrence Bean

Lawrence Bean
District Supervisor
Waste Management and
Radiological Protection Division
517-416-4375

Enclosure
cc/enc: Mr. Anthony Testa, AD
Mr. Lonnie Lee, DEQ
Mr. Scott Miller, DEQ
Ms. Alex Clark, DEQ
Mr. Brett Coulter, DEQ
Ms. Diane Kavanaugh-Vetort, DEQ
Ms. Aubrey Proctor, DEQ
Ms. Margie Ring, DEQ
Ms. Melinda Shine, DEQ
Mr. Alex Whitlow, DEQ