



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

FEBRUARY 27, 2018

Mr. Evan Jahn
USA Waste Geneva Landfill, Inc.
4339 Tuttle Road
Geneva, OH 44041

**Re: USA Waste Geneva Landfill
Director's Authorization
Approval
Municipal Solid Waste Landfills
Ashtabula County
MSWL018758**

**Subject: Geneva Landfill, Ashtabula County
Selection of Corrective Measure**

Ohio EPA FEB 27 '18
Entered Directors Journal

Dear Mr. Jahn:

On June 28, 2017, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) received the Corrective Measures Plan (CMP) for the Geneva Landfill located in Ashtabula County. The CMP was submitted by Eagon & Associates on behalf of Waste Management, Inc. and USA Waste Geneva Landfill, Inc.

The Facility is a municipal solid waste landfill. Waste Mangement, Inc. currently conducts ground water quality assessment monitoring for six contaminants of concern.

Ohio Administrative Code (OAC) Rule 3745-27-10(F) requires the owner or operator of a municipal solid waste landfill to submit a CMP upon determining, through assessment activites performed in accordance with OAC Rule 3745-27-10(E), that waste-derived contaminants have been detected in the ground water. In accordance with OAC Rule 3745-27-10(F)(10), the director shall select from the CMP the corrective measure which best meets the criteria listed in paragraphs (F)(2), (F)(3), and (F)(7) of the rule.

OAC Rule 3745-27-10(F)(2) requires the CMP to evaluate all practicable remediation procedures which are available for remediating any contamination discovered during assessment monitoring. OAC Rule 3745-27-10(F)(3) requires the CMP to include an evaluation of each proposed remediation procedure.

In accordance with OAC Rule 3745-27-10(F)(7), the CMP shall propose a concentration level for each waste-derived constituent detected in the ground water at a statistically significant level. In accordance with OAC Rule 3745-27-10(F)(7)(a), the proposed concentration levels are required to be protective of human health and safety and the

environment. In accordance with OAC Rule 3745-27-10(F)(7)(b)(i), if there is a maximum contaminant level (MCL) promulgated for the constituent, that shall be used as the concentration level. If an MCL has not been established, the background concentration shall be used unless the director establishes an alternate ground water remediation standard in accordance with OAC Rule 3745-27-10(F)(7)(d).

The CMP was reviewed to determine if it meets the requirements listed in OAC Rules 3745-27-10(F)(2), (F)(3), and (F)(7). Upon review, it has been determined that the CMP includes provisions for semiannual sampling in accordance with OAC Rule 3745-27-10(F)(2); all practicable remediation procedures were evaluated for each assessment area in accordance with OAC Rule 3745-27-10(F)(3); and the ground water remediation standards meet the requirements of OAC Rule 3745-27-10(F)(7).

Ground water remediation standards (GWRS) specified in Table 1 were derived from the following:

- The GWRS for the constituents identified above background have been set equal to the MCL established for the constituent unless the constituent does not have a MCL;
- For the parameters that do not have a MCL, the GWRS has been established using a U.S. Health Advisory, SMCLs, or twice the highest concentration in the upper sand unit observed from 2013 through 2016.

Parameter	Impacted SZS well SW-5	Horizontal Extent well SW-127	Ground Water Remediation Standard	
	October 2017 concentrations			
Ammonia	2.00 mg/L	0.24 mg/L	30 mg/L	Health Advisory Level
Barium	0.106 mg/L	0.018 mg/L	2 mg/L	MCL
Chloride	945 mg/L	19 mg/L	250 mg/L	SMCL
Potassium	4.3 mg/L	2.0 mg/L	12.4 mg/L	2x highest concentration
Sodium	292 mg/L	63.2 mg/L	230 mg/L	2x highest concentration
TDS	2410 mg/L	666 mg/L	2300 mg/L	2x highest concentration

The CMP evaluated the four Corrective Measures Alternatives listed below:

- Alternative 1: Continued Monitoring with Natural Attenuation – Continuation of semiannual monitoring of ground water wells and monitoring of natural attenuation parameters.
- Alternative 2: Cut-off Wall with Pump-and-Treat – Installation of cut-off wall downgradient from well SW-5 and installation of interceptor pumping well(s).
- Alternative 3: Capping Adjacent Waste Placement Cell – Continued utilization of final cap on the cell directly adjacent to well SW-5, constructed in 1998.
- Alternative 4: Phytoremediation – Bioremediation utilizing vegetation to remove, degrade, or stabilize contaminants in ground water.

Waste Management, Inc has proposed Alternative 1 which provides groundwater monitoring with natural attenuation to watch for any future changes in groundwater quality. There are no short-term risk exposure pathways (i.e., handling of impacted groundwater or soils) associated with Alternative 1. Chloride, sodium and TDS are above their Ground Water Remediation Standard. This is a very common combination of parameters that is released from landfills. It is not unexpected that these parameters were being assessed. There are no risks to human health or the environment beyond the property boundary. The groundwater contamination is limited in extent and entirely contained within the property boundary. Statistical analysis of the October 2017 groundwater data did not identify any increasing trends for the assessment parameters. Alternative 3 has already been implemented; capping of the adjacent waste cell was completed in 1998.

Ohio EPA has reviewed the CMP as described above and determined that the CMP and Corrective Measures Alternative 1 meet the requirements listed in OAC Rules 3745-27-10(F)(2), (F)(3), and (F)(7), including the requirement to be protective of human health and safety and the environment. Therefore, I select Alternative 1: Continued Monitoring with Natural Attenuation as the corrective measure to be implemented at the Facility. Waste Management, Inc. shall implement the selected corrective measure at the Facility in accordance with the CMP, as received June 28, 2017.

You are hereby notified that this action of the Director of Environmental Protection (director) is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the director's action. The appeal must be accompanied by a filing fee of \$70.00 made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme

hardship. Notice of the filing of the appeal shall be filed with the director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
30 East Broad Street, 4th Floor
Columbus, Ohio 43215

If you have any questions concerning this letter, please contact Katharina Snyder of Ohio EPA, Northeast District Office at (330) 963-1257.

Sincerely,



Craig W. Butler
Director

CWB:KS

ec: Randall Barnes, Ashtabula County Health Department
Raymond Saporito, Ashtabula County Health Department