



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

March 31, 2017

Mr. Joseph Reitz
Interim Service Director
City of Avon Lake
750 Avon Belden Rd.
Avon Lake, Ohio 44012

**Re: Avon Lake Landfill
Director's Authorization
Approval
Municipal Solid Waste Landfills
Lorain County
MSWL019419**

**Subject: Avon Lake Landfill, Lorain County
Selection of Corrective Measure
OAC Rule 3745-27-10(F)(8) Determination**

Ohio EPA MAR 31 '17
Entered Directors Journal

Dear Mr. Reitz:

On December 8, 2016, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) received the Corrective Measures Plan (CMP) for the closed Avon Lake Landfill (Facility). The CMP was submitted by HZW Environmental Consultants on behalf of the City of Avon Lake.

The City of Avon Lake has conducted ground water quality assessment for 12 waste-derived constituents at the Facility. Ohio Administrative Code (OAC) Rule 3745-27-10 requires the owner/operator of a municipal solid waste landfill to submit a CMP upon determining that waste-derived constituents have been detected in the ground water. The owner/operator may include a demonstration pursuant to OAC Rule 3745-27-10(F)(8)(b) which shows that remediation is not necessary because the waste-derived constituents are present in ground water that is not currently or reasonably expected to be a source of drinking water and is not hydraulically connected with waters to which the waste-derived constituents are migrating or are likely to migrate in concentrations that would exceed the ground water remediation standards established under OAC Rule 3745-27-10(F)(7).

OAC Rule 3745-27-10(F)(2) requires the CMP contain a ground water corrective measures monitoring plan, and OAC Rule 3745-27-10(F)(7) requires that the CMP propose a concentration level (ground water remediation standard) for each waste-derived constituent detected in the ground water.

The CMP submitted on December 8, 2016, complies with the requirements contained in paragraphs (F)(2), (F)(7), and (F)(8) of OAC Rule 3745-27-10, including the requirement to be protective of human health and safety and the environment. Specifically, the CMP includes provisions for semiannual sampling and analysis of ground water and surface water, a concentration level for each waste-derived constituent detected in the ground water, and a demonstration which shows that remediation is not necessary.

According to the CMP, the City of Avon Lake will sample and analyze ground water semiannually and evaluate the resulting data after each sampling event to determine if additional source controls are required.

The CMP identifies 12 waste-derived constituents and the City of Avon Lake established Ground Water Remediation Standards (GWRS) for all 12 waste-derived constituents based upon established Maximum Contaminant Levels (MCLs), United States Environmental Protection Agency (U.S. EPA) Health Advisories, or Facility background concentrations.

The following table presents the 12 waste-derived constituents with their associated GWRS and the source of each standard.

Ground Water Remediation Standards (GWRS) Avon Lake Landfill		
Waste-Derived Constituent	GWRS (mg/L)	Basis for GWRS
Alkalinity	870	Background
Ammonia	30	Health Advisory
Antimony	0.06	MCL
Barium	2.0	MCL
Chloride	330	Background
Iron	4.64	Background
Magnesium	113.0	Background
Manganese	1.06	Background
Potassium	11.57	Background
Sodium	280.45	Background
TDS	2,220	Background
Zinc	0.035	Background

The demonstration in the CMP satisfies the requirements of OAC Rule 3745-27-10(F)(8)(b)(i) because ground water underlying the Facility is not currently or reasonably expected to be a source of drinking water. Ground water underlying the Facility is not currently a source of drinking water, and the City of Avon Lake supplies drinking water to the area. Ground water resources in the area are meager and the closest

potable water well is located more than half a mile northwest of the Facility. Based upon the maximum calculated seepage velocity along the northern portion of the Facility, it would take waste-derived constituents over 100 years to reach the closest identified potable water well if ground water at the Facility were hydraulically connected to the well's source of drinking water.

The demonstration in the CMP also satisfies the requirements of OAC Rule 3745-27-10(F)(8)(b)(ii) because ground water at the Facility is not hydraulically connected with waters to which waste-derived constituents are migrating or are likely to migrate in concentrations that would exceed the proposed GWRS.

Based on the information contained in the CMP and the demonstration submitted pursuant to OAC Rule 3745-27-10(F)(8)(b), I have determined that remediation of the above-described release of waste-derived constituents from the Facility is not necessary. Therefore, I select the corrective measure described in the December 8, 2016 CMP. The City of Avon Lake shall implement the CMP to sample and analyze ground water and surface water semiannually at the Facility. After each sampling event, the City of Avon Lake shall evaluate the resulting data to determine if additional source controls are required in accordance with the standards established in the CMP.

This letter shall not be construed to release the owner or operator from the obligation to comply with the requirements of any other ground water quality assessment monitoring program being conducted at the Facility.

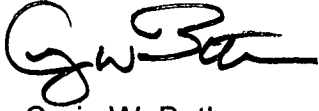
You are hereby notified that this action of the Director of Environmental Protection (Director) is final and may be appealed to the Environmental Review Appeals Commission pursuant to ORC Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which 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
77 South High St., 17th Floor
Columbus, Ohio 43215

Avon Lake Landfill
OAC Rule 3745-27-10(F)(8)(b)
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If you have any questions concerning this letter, please contact Katharina Snyder, Ohio EPA, Northeast District Office at (330) 963-1257.

Sincerely,

A handwritten signature in black ink, appearing to read "CWB", with a stylized flourish at the end.

Craig W. Butler
Director

CWB:KS:cla

ec: Joseph Reitz
Dwight Williams
Lorain County Health Department