



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 19, 2009

RE: CITY OF AVON LAKE LANDFILL
LORAIN COUNTY
GROUND WATER

CERTIFIED MAIL

Mr. Thomas E. Lescher
Service Director
City of Avon Lake
750 Avon Belden Rd.
Avon Lake, Ohio 44012

Dear Mr. Lescher:

The Ohio Environmental Protection Agency (Ohio EPA), has reviewed the revised Ground Water Quality Assessment Plan (GWQAP) for the Avon Lake Municipal Landfill, Avon Lake, Ohio. The plan is dated June 2008 and was received by Ohio EPA on June 20, 2008. The facility is currently in assessment in accordance with OAC 3745-27-10(E) (as effective August 15, 2003).

Upon review of the document, the following violations were identified:

- 1. The owner/operator is in violation of OAC 3745-27-10(E)(1), requiring that the owner/operator implement and comply with the GWQAP, and OAC 3745-27-10(E)(7) which requires the owner/operator to make a final determination in accordance with paragraph (E)(6) of this rule within the timeframe specified in the GWQAP.**

The owner/operator did not determine the concentration, rate, and extent of migration of waste derived constituents in ground water in accordance with the schedule in the GWQAP.

The current schedule has expired, therefore, the owner/operator should revise the GWQAP to include an updated schedule, including a specific date at which time the rate, extent (both vertical and horizontal), and concentration of waste derived constituents will be determined. It should also include the date at which time the Ground Water Quality Assessment Report (GWQAR) will be submitted. The owner/operator is then bound by this new timeline as required by the aforementioned rules.

- 2. The owner/operator is in violation of OAC 3745-27-10(B)(1)(b) for not adequately monitoring the ground water passing downgradient of the landfill, OAC 3745-27-10(B)(4)(b) by not adequately being able to detect a release from the landfill, and OAC 3745-27-10(B)(5) which requires that the owner/operator evaluate the ground water surface elevation data to determine if the requirements of paragraph (B) of this rule continue to be satisfied and immediately make any changes if necessary, and OAC 3745-27-10(E)(1) for failing to implement a ground water quality assessment plan capable of determining the rate, extent, and concentration of waste derived constituents in the ground water.**

Upon additional review of the revised 2008 GWQAP, it was noted that monitoring wells MW-1 and MW-2, which are designated as upgradient, are, in fact downgradient based on the potentiometric map. Monitoring well MW-4 remains the only background well that is clearly upgradient, and therefore assumed to be unaffected by the landfill.

In order to return to compliance the owner/operator should revise the GWQAP, and Sampling and Analysis Plan (SAP), to re-designate monitoring wells MW-1 and MW-2 as downgradient. The Statistical Analysis Plan (StAP) should also be revised as necessary.

- 3. The owner/operator is in violation of OAC 3745-27-10(E)(1) for not implementing a GWQAP capable of determining rate, extent, and concentration of waste derived constituents in the ground water, OAC 3745-27-10(E)(4)(l) for not proposing an adequate number, location, and depth of wells, OAC 3745-27-10(E)(4)(g) for not including provisions for additional wells to adequately determine rate, extent and concentration.**

The current QWQAP does not include specific provisions for additional wells, although it's clear that additional wells are necessary to determine rate, extent (both vertical and horizontal), and concentration of waste derived constituents.

In order to return to compliance the owner/operator should revise the GWQAP to include the proposed number, location, and depth of wells to be installed to determine rate, extent (both vertical and horizontal), and concentration of waste derived constituents.

Specifically, additional wells should be installed, in the till/shale interface, downgradient of the affected wells (including monitoring wells MW-1 and MW-2) up to the property boundary to determine the horizontal extent of impact from the

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landfill. If those wells show an impact from the facility, or if any current well is located near the property line, the owner/operator should make every effort to put wells beyond the facility boundary, in accordance with OAC 3745-27-10(E)(6). If permission to install wells on adjacent property is denied, the owner/operator should obtain the appropriate documentation and submit it to Ohio EPA. Additionally, the owner/operator should install an appropriate number of deeper wells to determine the vertical extent of the contamination.

The number of additional wells should be dictated by the monitoring systems ability to provide an accurate and conclusive contamination plume map. The owner/operator should be aware that Ohio EPA considers the plume boundary to be between a well showing contamination and one that does not.

The following issue identified during the review of the document needs more information to determine compliance:

- 1. OAC 3745-27-10(C)(3)(c) requires that ground water elevations be collected in all wells monitoring the same unit(s) or portion of units for development of the potentiometric map.**

It was noted that monitoring well MW-5A is screened deeper, and entirely in shale, than the other wells but was included in the development of the potentiometric map.

The owner/operator should evaluate, in accordance with OAC 3745-27-10(B)(5), whether this well is hydraulically connected to the other wells and if it is appropriate to include the water level with the other wells when creating the map.

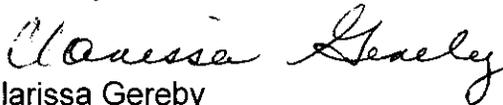
On July 7, 2009, a meeting was held at your office to discuss the ground water monitoring plan for the Avon Lake Landfill. Present for the meeting were you, Russ Kocher of the Division of Drinking and Ground Waters, Ohio EPA, Suzanne Eden and John Zampino of HzW Environmental Consultants, LLC., and me. The violations/deficiencies contained in this letter were discussed at the meeting. A site visit was also conducted to identify the possible locations of additional monitoring wells.

Please submit the revised plans to Clarissa Gereby, Ohio EPA, Division of Solid and Infectious Waste Management, Northeast District Office 2110 East Aurora Road, Twinsburg, Ohio 44087. If you have any technical questions regarding this review, please do not hesitate to contact Russ Kocher at (330) 963-1203.

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Nothing in this letter shall be construed to authorize any waiver from any requirements of applicable state solid waste laws or regulations. This authorization shall not be interpreted to release the City or others from responsibility under ORC Chapters 3704, 3714, 3734, or 6111, the Federal Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances and Control Act or the Comprehensive Environmental Response, Compensation and Liability Act, or from other applicable requirements for remedying conditions resulting from any release of contaminants from the facility to the environment.

Sincerely,



Clarissa Gereby
Environmental Specialist
Division of Solid and Infectious Waste Management

CG:cl

cc: Fleming Mosely, Lorain City Health Department
Russ Kocher, DDAGW, NEDO
Suzanne Eden, HzW Environmental Consultants, LLC
File:[Kurko/Land/Avon Lake/GRO/47]

Project ID# 1664

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Mr. Thomas E. Lescher
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 750 Avon Belden Rd.
 Avon Lake, Ohio 44012

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