



State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Rd.
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.ohio.gov

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

Re: Lucas County
Hoffman Road Landfill
Ground Water

March 5, 2010

Mr. Terry Baehr, Manager of Operations
Hoffman Road Landfill
3962 Hoffman Road
Toledo, Ohio 43611

Dear Mr. Baehr:

On January 22, 2010, Ohio Environmental Protection Agency (Ohio EPA), Northwest District Office (NWDO) received from Hull & Associates, Inc., on behalf of City of Toledo-Hoffman Road Landfill (facility) the Statistical Report of Groundwater Quality for the City of Toledo; HRL026.100.0049.DOC, dated January 21, 2010.

Ohio EPA has reviewed the report for compliance with ground water monitoring requirements of Ohio Administrative Code (OAC) Rule 3745-27-10. Below are the Ohio EPA's findings from the review.

COMMENTS

Evaluation of Owner/ Operator's Response to Previously Cited Violations

- 1. The facility owner/ operator returned to compliance with OAC Rule 3745-27-10(C)(1)(a), requiring the owner/ operator to follow the procedures documented within the written sampling and analysis plan.**

The Ground Water Detection Monitoring Sampling and Analysis Plan (Revision 12, August 2007) states, in Section 4.5, that wells will be pumped dry only in the case of a well with a recharge rate of less than 100 ml/minute. Groundwater Monitoring Well Field Data Sheets in the Statistical Report of Groundwater Quality, dated August 21, 2009, indicated wells with recharge rates greater than 100 ml/minute were purged dry and sampled on the following day. In correspondence dated October 15, 2009, Ohio EPA cited the owner/ operator in violation of OAC Rule 3745-27-10(C)(1)(a) for a not following sampling procedures in their written Sampling and Analysis Plan.

In correspondence dated November 23, 2009, the owner/ operator responded stating that a demonstration will be submitted to Ohio EPA regarding the recharge rates of shallow and intermediate wells as related to the stabilization of water levels during purging activities.



Lucas Co Hoffman Rd LA GW

To date the demonstration has not been submitted. However, the owner/ operator conducted sampling during the month of November 2009. The field data sheets for the November sampling event indicate that monitoring wells were purged in accordance with procedure described in their written sampling and analysis plan, returning the owner/ operator to compliance with OAC Rule 3745-27-10(C)(1)(a).

Statements

2. **The owner/ operator is reminded that in order to continue to meet the requirements of OAC Rule 3745-27-10(C)(1) during future monitoring events it is necessary to revise the Statistical Monitoring Plan to be consistent with U.S. EPA Unified Guidance, dated March 2009, prior to conducting the next statistical evaluation.**

The Statistical Monitoring Plan for the City of Toledo Hoffman Road Landfill, dated January 1997, Revised June 1997, states that it was developed following guidelines established by the U.S. EPA in Statistical Analysis of Ground-water Monitoring Data at RCRA Facilities-Interim Final Guidance, dated 1989, and the corresponding Addendum, dated 1992.

New U.S. EPA Unified Guidance, came out in March 2009. The Fact Sheet for the Unified Guidance, dated March 2009, states that the **Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities** is termed the Unified Guidance, since it integrates and supersedes two guidance documents of the same title released in 1989 and 1992. It resolves certain problems in earlier guidance while providing newer statistical methods and strategies developed in the mid-1990's and later.

The Statistical Monitoring Plan for the City of Toledo Hoffman Road Landfill needs to be updated to be consistent with the new March 2009 guidance that supersedes the 1989 and 1992 guidance. Issues that need to be addressed in the plan revision or added to the plan are listed below.

- A. Add the Unified Guidance to the references in Section 1.1.
- B. Revise the default data distribution the default data distribution. Data should not be transformed unless it is shown not to be normally distributed.
- C. Aitchison's adjustment is not recommend when non-detects exceed 15%.
- D. The use of the Poisson prediction limit is no longer recommended for data sets that contain greater than 90% non-detects.
- E. Add procedures for establishing and updating background.
- F It is requested that plans include a listing of data representing background.

Mr. Terry Baehr, Manager of Operations
March 5, 2010
Page 3

- G. It is requested that plans include trend test, outlier test, and normality test results on the background data. It is also requested that the justification that the data for background is representative of background water quality also be included in the plan.
3. **The owner/ operator is reminded that in order to continue to meet the requirements of OAC Rule 3745-27-10(C)(1), (4), and (5) during future monitoring events it is necessary to update background for chloride at monitoring well MW-2 prior to conducting future statistical evaluations.**

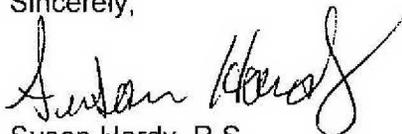
The control chart cumulative sum curve for chloride at monitoring well MW-2 shows a decreasing trend. The last 16 analysis results, since December 10, 2002, have been below the mean. Earlier data is not representative of current background conditions and it would be appropriate to update background using a moving window.

4. **The November 12, 2009, analysis result for chloride at monitoring well MW-21A₂ is a low outlier (greater than 7 standard deviations below the mean). Unless it can be successfully demonstrated to be representative of ground water quality, the owner/ operator may be cited for non compliance with OAC Rule 3745-27-10(C)(1), (4), and (5) if the result is included in future control chart analyses.**

If you have any questions please contact Mike Beal, at Ohio EPA, Northwest District Office, Division of Drinking and Ground Waters, 347 N. Dunbridge Rd., Bowling Green, Ohio 43402.

Submit all reports/data to Sue Hardy, Ohio EPA, Northwest District Office, Division of Solid and Infectious Waste Management, 347 N. Dunbridge Rd., Bowling Green, Ohio 43402.

Sincerely,



Susan Hardy, R.S.
Environmental Specialist
Division of Solid and Infectious Waste Management

//lr

pc: Jodi Vaughan, Toledo-Lucas County Health Department
Karen Okonta, Hull and Associates, Inc.
DSIWM-NWDO File: Lucas County, Hoffman Road Landfill, Ground Water

ec: Mike Reiser, DSIWM, NWDO
Mike Beal, DDAGW, NWDO
Jack Leow, DDAGW, NWDO
Lindsay Taliaferro, DDAGW, CO
Ed Merriman, DSIWM, NWDO
Abdul Smiley, DSIWM, NWDO

id: 5-9107