



State of Ohio Environmental Protection Agency

Northeast District Office

#1569

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

April 11, 2008

RE: **GEVEVA LANDFILL  
GROUND WATER**

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

Dear Mr. Jahn:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the document titled "*Semiannual Ground Water Monitoring Report March 2007 Analytical Results for Ground Water Detection Monitoring USA Waste Geneva Landfill, Geneva, Ohio.*" The document dated May 24, 2007, was received at the Northeast District Office of Ohio EPA on May 25, 2007. The document presents the findings of the March 2007 semiannual ground water sampling event, pursuant to OAC Rule 3745-27-10(D). The Geneva Landfill ground water monitoring programs are regulated by the Solid and Infectious Waste Regulations (OAC 3745-27-10), effective August 15, 2003.

Upon review, Ohio EPA has determined that the owner of USA Waste Geneva Landfill (Geneva Landfill) is in violation of the following:

1. Geneva Landfill is in violation of **OAC Rule 3745-27-10(C)(1)(a)** that states "*A written sampling and analysis plan, which documents the sampling and analysis procedures that shall be utilized in the ground water monitoring program. The owner or operator is required to use the procedures documented within the sampling and analysis plan.*"

This rule requires the owner/operator to follow all low flow purging and volumetric sampling requirements in the written Sampling and Analysis Plan (SAP).

Ohio EPA has determined that the owner/operator failed to follow their written SAP. Specifically, the owner/operator failed to properly follow all low flow and volumetric sampling requirements as set forth in the SAP.

The plan specifies for low-flow purging (page 36) that "*...after evacuating the water in the pump and discharge tubing, collection of field measurements can begin...Stabilization will be considered achieved and purging will be considered complete when the following criteria have been met: three consecutive water-level*

*measurements vary by one foot or less, and three consecutive measurements of specific conductance, pH, and conductivity agree to within 10%. Samples will not be collected from any well, using the purging method in this section, unless these criteria are met..."*

According to the field information forms (well record forms), the owner/operator did not properly evacuate the stagnant water from the dedicated pump and tubing prior to initiating the measurement of the field stabilization parameters and sample collection at all wells as required in the SAP. This resulted in the collection of unrepresentative ground water samples from the following wells:

- MW-7 The owner/operator should have purged 3.01 liters of stagnant pump and tubing water prior to beginning the measurement of field stabilization parameters and collection of samples. Instead, a total of only 3.41 liters were removed from the well prior to sampling;
- MW-8 The owner/operator should have purged 2.75 liters of stagnant pump and tubing water prior to beginning the measurement of field stabilization parameters and collection of samples. Instead, a total of only 3.41 liters were removed from the well prior to sampling.

The owner/operator needs to ensure that all purging and sampling steps, procedures, and analyses in the written plan are followed to ensure the proper measurement of field parameters and the collection of representative ground water samples.

2. **Geneva Landfill is in violation of OAC Rules 3745-27-10(C)(1), 3745-27-10(C)(2)(c)(i), and 3745-27-10(C)(2)(c)(ii), requiring the proper collection of representative ground water samples from all monitoring wells.**

The owner/operator did not properly evacuate the stagnant water from within the dedicated pump and tubing prior to initiating the measurement of field stabilization parameters and sample collection at several wells. This resulted in the collection of unrepresentative ground water samples from wells listed in monitoring well MW-7 and MW-8.

The owner/operator must ensure that all purging and sampling requirements in the written SAP are followed in the future. The ground water sample results from these wells (MW-7 and MW-8) cannot be accepted or used for statistical analysis or considered for inclusion as background data.

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Ohio EPA will need additional information to determine compliance with OAC Rule 3745-27-10(B)(1)(b) and (B)(3)(e) that requires that all monitoring wells be maintained to provide for the collection of representative samples.

3. Information submitted indicates that monitoring wells, MW-2R, MW-3R, and MW-8 had elevated pH measurements of greater than 9 units during the March 2007 sampling event. Values of pH greater than 9 units may indicate grout contamination of the monitoring well itself and/or impact from the landfill or other source. Ohio EPA is unable to determine whether these wells meet the requirements of these two rules because it is unclear if the wells are impacted by grout, the landfill, another source of contamination, or have a compromised surface seal.

To demonstrate compliance with these rules, the owner/operator needs to explain the issue of the elevated pH readings for monitoring wells, MW-2R, MW-3R, and MW-8. Furthermore, the owner/operator needs to prove that these wells have, and will continue to perform as required by these rules. This demonstration should include showing that MW-2R, MW-3R, and MW-8 have produced representative samples in the past, that these wells were designed, installed, and developed in a manner that allows collection of ground water samples that are representative of ground water quality in the geologic unit being monitored, and that these wells have been properly maintained to perform to design specifications. Ohio EPA recommends that monitoring wells, MW-2R, MW-3R, and MW-8, be re-developed in an attempt to remedy the elevated pH of ground water coming from these wells.

If you have any technical questions regarding this review, please contact Conni McCambridge at (330) 963-1263. Please submit all correspondence to Colum McKenna, Division of Solid and Infectious Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Colum J. McKenna  
Environmental Specialist  
Division of Solid and Infectious Waste Management

CJM:cl

cc: John Hujar, DSIWM-NEDO  
Conni McCambridge, DDAGW-NEDO  
Raymond Saporito, ACHD  
Scott Herman, WMI  
File: [TUKEL/LAND/Geneva Landfill/COR/04]