

Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

May 21, 2012

RE: HOLMES COUNTY LANDFILL  
GROUND WATER  
NOTICE OF VIOLATION

**CERTIFIED MAIL 7010 3090 0000 3936 2919**

Joe Miller, Chairman  
Holmes County Board of Commissioners  
2 Court Street, Suite 14  
Millersburg, OH 44654

Dear Mr. Miller:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the following document:

**Response to August 17, 2011, Notice of Violation for Ground Water  
Detection Monitoring Report and Addendum  
Dated December 13, 2011**

On behalf of Holmes County SLF, North Point Engineering (NPE) and KU Resources (KU) prepared and submitted to the Ohio EPA the above referenced document. The Response to the NOV letter was received by Ohio EPA, Northeast District Office (NEDO) on December 15, 2011. Holmes County SLF is operating under the 2003 Revision to Ohio Administrative Code (OAC) Rule 3745-27-10, and at the time of this sampling event, in accordance with OAC Rule 3745-27-10(D) and (E), Detection and Assessment Monitoring Programs.

Ohio EPA has the following comments regarding the response. Note that violation 1 has not yet been resolved.

- 1. Holmes County SLF remains in violation of OAC 3745-27-10(E)(1) requiring a ground water quality assessment monitoring program for UZ-1, UZ-12, LZ-2 and LZ-3R. The owner or operator has failed to comply with the following requirements regarding ground water quality assessment monitoring. Unless the director approves the report submitted in accordance with paragraph (D)(7)(c) of this rule, the owner or operator shall implement a ground water quality assessment plan capable of determining the concentration, rate, and extent of migration of waste-derived constituent(s) in the ground water upon determining a statistically significant increase over background in accordance with paragraph (D)(7) of this rule. The owner or operator shall implement and comply with the ground water quality assessment plan and the requirements of this rule.***

*Detection monitoring wells UZ-1 and LZ-3R entered assessment monitoring activities on July 13, 2010. They were joined in assessment monitoring activities by detection monitoring wells UZ-12 and LZ-2 on January 7, 2011. To date, Holmes County SLF has neither submitted a ground water quality assessment plan, nor conducted any of the ground water monitoring activities at these wells as required by this rule.*

*To return to compliance with this rule, the owner/operator needs to immediately submit a ground water quality assessment plan and initiate the required assessment sampling protocols, beginning with the Appendix I and II sampling at all four of these assessment wells, plus the appropriate background wells.*

**Response by Holmes SLF:**

Acknowledged, however, current circumstances do not require an assessment plan. The SSIs at each well no longer exist based on submittals to Ohio EPA: The ASD for UZ-1 and LZ-3R was approved. The concentrations of sodium and potassium were lower than a previously approved ASD dated January 22, 2009, and LZ-2 was successfully redeveloped in May 2011, and concentrations are now lower at LZ-2, therefore, no SSI exists at LZ-2.

**Current Response by Ohio EPA:**

*Holmes SLF remains in violation of OAC 3745-27-10(E)(1) requiring a ground water quality assessment monitoring program for monitoring well UZ-12.*

*The owner or operator submitted ASDs for wells UZ-1, LZ-2 and LZ-3R, which were approved by the director on September 6, 2011 and November 29, 2011 respectively, returning Holmes County SLF to compliance for this NOV for the three wells.*

*For detection monitoring well UZ-12, the approved ASD on January 22, 2009 is not adequate to address the current SSI. Unless the Director approves the report submitted in accordance with paragraph (D)(7)(c) of this rule for UZ-12, the owner or operator shall implement a ground water quality assessment plan capable of determining the concentration, rate, and extent of migration of waste-derived constituent(s) in the ground water upon determining a statistically significant increase over background in accordance with paragraph (D)(7) of this rule. The owner or operator shall implement and comply with the ground water quality assessment plan and the requirements of this rule.*

*To return to compliance with this rule, the owner/operator needs to immediately submit a ground water quality assessment plan and initiate the required assessment sampling protocols, beginning with the Appendix I and II sampling at assessment well UZ-12, plus an appropriate background well.*

- 2. Holmes County SLF is in violation of OAC Rules 3745-27-10 (C)(1) and 3745-27-10(C)(1)(a), which requires the ground water monitoring program to include consistent sampling and analysis procedures and statistical methods that are**

***protective of human health and the environment; and that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and downgradient wells; and requires the owner/operator to document these consistent sampling and analysis procedures in a plan, and to follow it.***

*The ground water sample from monitoring well LZ-2 was not representative of ground water quality for the lower zone because the sample was obtained on August 23, 2010 without purging.*

*The Ground Water Detection Monitoring Plan (GWDMP) states that wells shall be sampled within 24 hours after purging has been completed. The GWDMP goes on to state that if a well goes dry during sampling, sample collection should proceed when the well has recharged sufficiently to meet the remaining samples, and in the event that one or more of the monitoring wells recovers so slowly that low-flow purging/sampling is precluded, sampling will be conducted utilizing minimum/no purge sampling techniques.*

*It is acceptable for wells that go dry, that the owner/operator attempt to sample within 24 hours, and if necessary, to continue to return to the well every 24 hours, up to a total of several days in an effort to collect a sufficient volume of water to satisfy a full sampling event (Technical Guidance Manual, Chapter 10). This is a common practice, but it is not acceptable to allow more than 24 hours passing before attempting sample collection. Ultimately, what happened here was fourfold. First, the owner/operator did not follow their plan, which required the well to be sampled within 24 hours. Second, the owner/operator implemented an unacceptable purging and sampling method (purge dry and sample six days later) based on inappropriate sampling language in their plan. Third, it does not appear the owner/operator attempted either low-flow or minimum/no purge sampling methods at this well, as set forth in their plan. Fourth, turbidity measurements prevented a representative sample from the well. Turbidity never dropped adequately to sample.*

*To return to compliance with these rules, the owner/operator needs to revise their plan to more clearly and appropriately specify how low-yield wells will be purged and sampled. The owner/operator is advised to strictly adhere to Chapter 10 of the Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring, and the owner/operator needs to implement and follow their revised plan during the next semiannual sampling event at Holmes County SLF.*

**Response by Holmes SLF:**

**LZ-2 was successfully redeveloped in May 2011, and the well now produces sufficient water to permit sampling within 24 hours as described in the June 2011 monitoring report.**

**Current Response by Ohio EPA:**

*Since LZ-2 was successfully redeveloped and now produces sufficient water, the plan is no longer in need of revision for low yield wells with regard to well LZ-2.*

- Holmes County SLF is in violation of OAC Rules 3745-27-10 (B)(3)(e), which requires the monitoring wells, piezometers, and other measurement, sampling, and analytical devices to be operated and maintained to perform to design specifications throughout the life of the monitoring program.***

*Turbidity measurements in the hundreds of NTUs prevented a representative sample from being collected at LZ-2. At a minimum, turbidity measurements over 100 NTUs at the time of sampling should signal that redevelopment of the well is necessary if a representative sample is to be collected. Holmes County SLF completed well redevelopment of LZ-2, and notified the agency on May 25, 2011, and, thus, returned to compliance for this violation; however, the redevelopment was necessary over a year earlier.*

**Response by Holmes SLF:**

*Acknowledged.*

**Current Response by Ohio EPA:**

*Holmes County SLF has returned to compliance for this violation.*

- Approval of earlier ASDs is not adequate justification for the current SSIs triggered in June 2010. The facility stated that an ASD for addressing sodium in UZ-1 was completed and approved by Ohio EPA on June 13, 2008, and an ASD concerning the concentrations of potassium in wells UZ-1 and UZ-12 and sodium in well UZ-12 was approved by Ohio EPA January 22, 2009. These approvals are for the SSIs in 2008 and 2009, therefore, are not applicable for the current SSIs for 2010.***

**Response by Holmes SLF:**

*The previously approved ASDs that potassium and sodium concentrations have a significant range of natural variability due to spatial changes across the site. Rather than resubmit previously approved documents, Holmes SLF cited previous approvals, and natural variability continues to affect ground water quality.*

**Current Response by Ohio EPA:**

*Holmes County SLF must resubmit a current ASD for each new confirmed SSI.*

5. *Holmes County SLF inquired if Ohio EPA would review and approve new sampling procedures outlined in the addendum for low-yielding wells, and to update the Ground Water Monitoring Detection Plan (GWMDP) to reflect the new procedures. As to the purging and allowing seven days prior to collecting water samples, that is not acceptable. It is also not acceptable that the current GWMDP be changed to reflect this proposed procedure.*

*While it is agreed a collection of both filtered and unfiltered samples during sampling or resampling would be beneficial in normal circumstances to allow for a determination of the effect of turbidity on the water samples and SSIs, the primary problems appear to be low-yield and elevated turbidity. These issues are generally best addressed through well redevelopment. It is unclear how successful the owner/operator would be collecting both filtered and unfiltered samples from proven low-yield wells. These wells should be redeveloped or new wells installed if the wells are not yielding sufficient water to obtain samples representative of ground water quality.*

**Response by Holmes SLF:**

Redevelopment will be undertaken at any well that fails to yield a sufficient quantity of ground water to permit sampling.

**Current Response by Ohio EPA:**

*Agreed, these wells should be redeveloped or new wells installed if the wells are not yielding sufficient water to obtain samples representative of ground water quality.*

6. *Correspondence via email from Robert Settle on June 6, 2011, indicated that using a top fill bailer allowed for enough water to permit the removal of 10 well volumes from monitoring well UZ-1R. The ground water sampling results were expected by the end of the following week. Ohio EPA has not received any ground water data on this new monitoring well.*

**Response by Holmes SLF:**

The data for this well was submitted to your office on August 16, 2011.

**Current Response by Ohio EPA:**

*This data was submitted in Attachment H of the updated ASD for UZ-1 and LZ-3R.*

Joe Miller, Chairman  
Holmes County Board of Commissioners  
May 21, 2012  
Page 6

Nothing in this letter shall be construed to authorize any waiver from the requirements of any applicable state or federal laws or regulations. This letter shall not be interpreted to release the Entity from responsibility under Chapters 3704, 3714, 3734, or 6111 of the Ohio Revised Code or under the Federal Clean Water or Comprehensive Environmental Response, Compensation, and Liability Acts for remedying conditions resulting from any release of contaminants to the environment.

If you have any questions, contact me at (330) 963-1257.

Sincerely,



Katharina Snyder  
Division of Materials and Waste Management

KS:cl

cc: Katherine Springer Amey, DDAGW-NEDO  
Jon Croup, Holmes County Health Department  
File: [Sowers/LAND/HOLMES/GRO/38]  
DMWM #3454