



State of Ohio Environmental Protection Agency

Northeast District Office

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

June 24, 2008

**RE: BFI CLD/LEWIS LANDFILL
GROUND WATER
NOTICE OF VIOLATION**

CERTIFIED MAIL

Mike Heher
Division Manager
Carbon Limestone Landfill, LLC
8100 South Stateline Road
Lowellville, OH 44436

Dear Mr. Heher:

The Ohio Environmental Protection Agency (Ohio EPA) conducted another inspection of the ground water monitoring system at the BFI CLD Lewis Landfill on May 30, 2008. Ohio EPA also collected global positioning satellite (GPS) locations of numerous surface water discharges at the site.

BFI CLD Lewis Landfill is a closed municipal solid waste landfill, upon which a construction and demolition debris landfill is being operated. The site is currently in post-closure care, and ground water monitoring activities are conducted in accordance with the solid and infectious waste regulations OAC Rule 3745-27-10, effective August 15, 2003.

Ohio EPA has identified the following violations:

- 1. The owner/operator is in violation of OAC Rule 3745-9-03 for failing to properly repair or abandon monitoring wells that are no longer used as part of routine ground water monitoring activities.**

Upon inspection of the ground water monitoring system, Ohio EPA identified one unknown and unmarked well at the facility, in addition to three known wells, in various states of disrepair.

- a. The unidentified well was located adjacent to well MW-13. The well was locked, but the surface seal was cracked and degraded (Attachment 1). According to a December 5, 1995 letter report containing potentiometric ground water flow maps, this well may be the A- or B-Horizon well MW-5DA or MW-5DB.
- b. The first identified well was located adjacent to well P-13A. This well is believed to be P-13B as evidenced by the markings on the inner PVC well caps that were found at the well (Attachment 1). The well was not locked

and the inner PVC cap was off, but the surface seal appeared to be in decent shape (Attachment 1). Neither the outer protective casing, nor the outer well cap was marked with the well ID.

- c. The second and third identified wells were located adjacent to well P-2A. These wells are believed to be P-2B and P-2C, based on the faded well ID's marked on the outer well caps (Attachment 1). The wells were locked, but more importantly, the surface seals were cracked and degraded (Attachment 1).

To return to compliance with this rule, the owner/operator should immediately repair the surface seals of these four wells, as necessary, and properly mark, or re-mark them, for identification purposes. A new lock should immediately be placed on P-13B to secure the well. Or, the owner/operator should immediately abandon them. The owner/operator should document all activities and submit this documentation to Ohio EPA for review.

2. The owner/operator is in violation of OAC Rule 3745-27-10(B)(3) for failing to properly maintain monitoring wells, piezometers, and annular seals to prevent the contamination of ground water.

- a. Upon inspection of piezometer P-13A, Ohio EPA noted that the identification on top of the protective casing was barely visible (Attachment 1). In addition, the inner PVC cap was missing and the surface seal was showing signs of cracking and heaving (Attachment 1). While P-13A is only used as a piezometer for measuring static ground water levels in the A-Horizon, the missing inner PVC cap and degraded surface seal could lead to erroneous measurements or contamination of the ground water through direct surface water infiltration or migration along the well casing, or foreign objects directly entering the well casing.

To return to compliance with this rule, the owner/operator should immediately repair the surface seal of P-13A, install an inner PVC cap on the well, and re-mark the steel protective casing for identification purposes.

- b. Upon inspection of piezometer MW-5R, Ohio EPA noted that the surface seal had heaved so much that it was possible to slide an inch thick leather portfolio beneath it (Attachment 1). While MW-5R is only used as a piezometer for measuring static ground water levels in the C-Horizon, the heaved surface seal could lead to erroneous measurements or contamination of the ground water through direct surface water infiltration or migration along the well casing.

To return to compliance with this rule, the owner/operator should immediately repair the surface seal of MW-5R.

- 3. Because the owner/operator has not complied with the rules above, the owner/operator is also in violation of OAC Rule 3745-27-11(A)(1) which requires continuing operation and maintenance of the ground water monitoring system.**

Ohio EPA requires more information in order to determine compliance with the following.

- 4. Compliance with OAC Rules 3745-27-10(B)(1)(b) and 3745-27-10(B)(4)(b) cannot be determined at this time. Along the western edge of the old Lewis Landfill, there exists an unmonitored span of 1,500 feet between MW-2R and MW-15A.**

MW-15A is an assessment well containing the documented presence of waste derived constituents in ground water. During the site visit, Ohio EPA noted a few leachate outbreaks with bubbling landfill gas along this same 1,500 feet between MW-2R and MW-15A (Attachment 1). Given the documented ground water contamination at MW-15A and the visible evidence of leachate outbreaks and gas migration between MW-2R and MW-15A, it seems appropriate that this area should be better monitored to determine whether or not ground water migrating from the site in this area has been impacted.

To demonstrate compliance with these rules, the owner/operator needs to conduct the necessary investigations to determine if any ground water pathways away from the old Lewis Landfill exist along this unmonitored stretch of 1,500 feet between MW-2R and MW-15A. If necessary, additional monitoring well(s) should be installed and added to the ground water monitoring system. The owner/operator should consider redeveloping and returning piezometers P-13A and P-13B to the ground water monitoring system as wells since they are not far from one of the leachate outbreaks with bubbling landfill gas. If the owner/operator has already investigated this area and did not find any ground water in the A- or B-Horizons, Ohio EPA requests that this information be submitted so it may be reviewed.

Ohio EPA offers the following comments.

- 5. Located in close proximity to monitoring well MW-2R are two unidentified wells (Attachment 1). These wells were locked, but not identified. Ohio EPA requests the owner/operator identify these wells/piezometers by marking the outer protective casings or well caps. In addition, while the surface seal of one of these wells was in decent shape, the other surface seal was showing a sign of**

heaving that has left a gap between the bottom of the seal and the top of the underlying ground surface (Attachment 1). Ohio EPA requests the owner/operator inspect this surface seal, and if necessary, make any repairs before the surface seal degrades any further.

6. The surface seal of MW-107A is starting to show significant signs of weathering. While no cracks were visible in the seal, the seal seems to be disaggregating at a fairly accelerated rate (Attachment 1). It may be that the batch of concrete used to pour the surface seal contained too much sand and gravel and consequently didn't set up very well. Ohio EPA requests the owner/operator inspect this surface seal, and if necessary, make any repairs before the surface seal degrades any further.
7. Located in close proximity to monitoring wells MW-107A and MW-106C was another well that was not easily identified (Attachment 1). It is possible this well is piezometer P-14A, but it was not clearly marked. This well was locked and the pad was in good shape. Ohio EPA requests the owner/operator identify this well/piezometer by marking the outer protective casing or well cap.
8. During the inspection, Ohio EPA collected GPS locations for four additional outfalls entering on-site ponds or streams leaving the site. The latitude and longitude of the locations are as follows:

Stream due east of well MW-121C:

40 degrees 57 minutes 8.3 seconds north latitude
80 degrees 50 minutes 6.9 seconds west longitude;

Outfall entering pond north of MW-5R:

40 degrees 57 minutes 7.3 seconds north latitude
80 degrees 50 minutes 7.1 seconds west longitude;

Stream due north of well P-2A:

40 degrees 57 minutes 12.0 seconds north latitude
80 degrees 50 minutes 21.0 seconds west longitude;

SG-4: 40 degrees 57 minutes 14.7 seconds north latitude

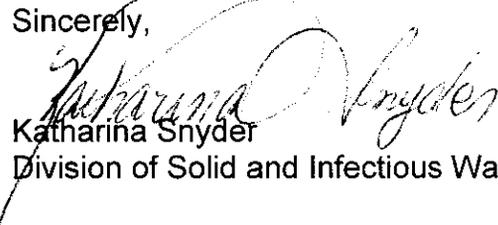
80 degrees 50 minutes 58.9 seconds west longitude.

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.

Mike Heher
Carbon Limestone Landfill, LLC
June 24, 2008
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If you have any questions concerning this letter, please contact me at (330) 963-1257.

Sincerely,



Katharina Snyder
Division of Solid and Infectious Waste Management

KS:cl

cc: Mark Kroenke, DDAGW-NEDO
Dave Silbaugh, Silbaugh Hydrogeological Services
Butch Bradburn
Mary Helen Smith, Mahoning County Health Department
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PS Form 3800, August 2006

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