



State of Ohio Environmental Protection Agency

Northwest District Office

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

Re: April-May 2007 Semi-annual Groundwater
Sampling Event
Celina Landfill, Mercer County

August 3, 2007

Mr. Adam Burleson
Operations Manager
Celina Landfill
6141 Depweg Road
Celina, OH 45822

Dear Mr. Burleson:

On July 13, 2007, the Ohio Environmental Protection Agency (Ohio EPA), Northwest District Office, received the ground water data report for the April-May 2007 semi-annual sampling event (dated July 12, 2007) for the Celina Sanitary Landfill (Facility). Ohio EPA reviewed the submittal to determine compliance with Ohio Administrative Code (OAC) Rule 3745-27-10. Below are Ohio EPA's comments regarding this submittal.

COMMENTS

Violations

1. **Ohio Administrative Code (OAC) Rule 3745-27-10(C)(1)(a):** The owner/operator is in violation of OAC Rule 3745-27-10(C)(1)(a) requiring: *"...The owner or operator is required to use the procedures documented within the sampling and analysis plan."* To avoid future violations of OAC Rule 3745-27-10(C)(1)(a), the owner/operator needs to use all procedures documented in the SAP during ground water sampling events.

Regarding chain-of-custody procedures, the Sampling and Analysis Plan (SAP), which is part of the Ground Water Detection Monitoring Plan (GWDMP) states **"The [chain-of-custody] record will contain the following information:...Signature of persons involved in the chain of possession [and] Inclusive dates of possession"**. This documentation is an important part of the chain-of-custody record. Proper chain-of-custody protocol is necessary in ensuring that the ground water samples are transferred to the laboratory in a manner that does not compromise the quality of the ground water samples.

However, the chain-of-custody forms for the April-May 2007 sampling event do not include all of this information. The forms include the sampler's signature and indicate the courier used for shipment and document receipt at the laboratory. However, the forms do not document the date or time of sample possession change from the sampler to the courier.

More Information Needed to Determine Compliance

2. **OAC Rule 3745-27-10(C)(7)(e)** As detailed below, more information is needed to determine compliance with OAC Rule 3745-27-10(C)(7)(e). OAC Rule 3745-27-10(C)(7)(e) requires that "...Any practical quantitation limit (PQL) used in the statistical method shall be the lowest concentration level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility." To allow for an evaluation of compliance with the requirements of OAC Rule 3745-27-10(C)(7)(e), the owner operator needs to do one of the following:

- ▶ Lower the laboratory PQLs of the constituents noted below to a level which is deemed as commonly achievable;

OR

- ▶ Demonstrate how the current PQLs represent the lowest concentration level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory operating conditions.

All necessary documentation needs to be submitted to Ohio EPA.

For the April-May, 2007 semi-annual sampling event, several of the constituents analyzed were reported with PQLs which are above levels that are commonly achievable (by analytical laboratories doing business in Ohio). The following table summarizes the PQLs that were used for these constituents in comparison to commonly achievable PQLs.

Constituent	PQL used for April-May 2007 Sampling Event	Commonly Achievable PQL
Acetone	50 µg/L	20 µg/L
Chloromethane	5 µg/L	1 µg/L
Bromomethane	5 µg/L	1 µg/L
Methylene Chloride	4 µg/L	2 µg/L
Xylene	3 µg/L	2 µg/L

3. **OAC Rule 3745-27-10(A)(1)**: As detailed below, more information is needed to determine compliance with OAC Rule 3745-27-10(A)(1). OAC Rule 3745-27-10(A)(1) requires that the owner/operator implement a "...*groundwater monitoring program capable of determining the impact of the facility on the ground water quality...*". To do this, the ground water monitoring program must be carried out with the purpose of consistently providing representative ground water samples to the analytical laboratory. To allow for an evaluation of compliance with OAC Rule 3745-27-10(A)(1), the owner/operator needs to submit documentation to Ohio EPA regarding the procedures and techniques for measuring the cooler temperatures at the laboratory.

For the April-May 2007 sampling event, the cooler temperatures recorded at the laboratory varied considerably (within individual coolers). For example, one cooler had a temperature blank reading of 5.3°C. However, the same cooler also had temperature readings of 11.1°C, 11.0°C and 10.1°C, for an average of 10.7°C.

In general, the ideal temperature range for preservation of ground water samples in coolers is 4°C ±2°C. Further, the GWDMP states "**Wet ice packs will be used to maintain a constant temperature of 4°C within the cooler.**". Elevated temperatures in the coolers can compromise the quality of the ground water samples.

4. **OAC Rule 3745-27-10(C)(1)(a)**: As detailed below, more information is needed to determine compliance with OAC Rule 3745-27-10(C)(1)(a). OAC Rule 3745-27-10(C)(1)(a) states "...*The owner or operator is required to use the procedures documented within the sampling and analysis plan.*". To allow for an evaluation of compliance with OAC Rule 3745-27-10(A)(1), the owner/operator needs to submit documentation to Ohio EPA regarding the condition of the monitoring wells noted below.

The ground water sample data sheet for monitoring well C-3 indicated that there was standing water around the well during the April-May 2007 sampling event. Further, the ground water sample data sheet for E-1 indicated that there was standing water around the well and that there were trip hazards around the well during the April-May 2007 sampling event.

If these conditions at these wells still persist, they need to be evaluated in accordance with the owner/operator's monitor well inspection and maintenance program which is documented in Section 2.0 of the GWDMP. This evaluation and any resulting maintenance needs to be done to ensure the integrity of the ground water monitoring network.

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5. The submittal includes potentiometric surface maps for each of the saturated zones monitored at the facility as required. However, on the potentiometric surface map for the uppermost aquifer system (UAS), the ground water elevation for monitoring well K-2 is incorrect. Although, it appears that the potentiometric surface map was contoured with the correct water elevation (for K-2) in mind.

If you have any questions please feel free to contact Ken Brock at the Ohio EPA Northwest District Office (419) 373-3143. Any written correspondence should be sent to the attention of Jeremy Scoles, Division of Solid and Infectious Waste Management, Ohio EPA Northwest District Office, 347 N. Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,



Jeremy Scoles, SIT, CHMM
Environmental Specialist
Division of Solid and Infectious Waste Management

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pc: Michelle Kimmel, Mercer County Health Department
Joseph Montello, Allied Waste
Travis Bayes, Allied Waste
Todd Aebie, Brown and Caldwell
~~File: Mercer County, Celina Landfill, Ground Water~~

ec: Andy Drumm, Jack Leow, Ken Brock

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