



State of Ohio Environmental Protection Agency

Northwest District Office

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

Re: Huron County Landfill
Ground Water
Huron County, Ohio

April 9, 2009

Huron County Commissioners
180 Milan Avenue
Norwalk, Ohio 44857

Dear Commissioners:

The Ohio Environmental Protection Agency (Ohio EPA) received the "Response (dated September 23, 2008) to Ohio EPA letter of August 21, 2008, regarding comments on the Ground Water Quality Assessment Plan" on September 24, 2008. The Huron County Commissioners (owner/operator) are required to monitor ground water quality at the Huron County Landfill (facility) in accordance with Ohio Administrative Code (OAC) Rule 3745-27-10, effective August 15, 2003. Wells MW-19, AW-19A and MW-19C are in assessment monitoring due to statistically significant concentrations of sodium, chloride, and Volatile Organic Compounds (VOCs) as of the April 2008 sampling event. The subject document includes a revised Table 3-1 for the Ground Water Quality Assessment (GWQA) Plan and a copy of the owner/operator's May 3, 2005, offsite access request per OAC Rule 3745-27-10(E)(6). Ohio EPA reviewed the subject document with respect to Ohio EPA's November 21, 2008, letter and the requirements of Ohio Administrative Code (OAC) Rule 3745-27-10.

COMMENTS

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

1. **The facility owner/operator remains in violation of OAC Rule 3745-27-10(E)(7), which requires, in part, the determination of rate, extent and concentration be made within the time frame specified in the submitted Ground Water Quality Assessment (GWQA) Plan. To return to compliance, the facility owner/operator should revise the time frame specified in Section 7.2 of the GWQA Plan that states when the first determination of rate, extent and concentration will be completed for monitoring well MW-19.**

The Ground Water Quality Assessment Report (GWQAR) is over due by more than four (4) years. The time frame stating when the first determination will be completed is the same in the May 2008 GWQA Plan as in the original GWQA Plan (dated January 2003). Section 7.2 in the present GWQA Plan (revised May 2008) states the first determination will be submitted "within eighteen months of implementation of the Ground Water Quality Assessment Plan."

The GWQA Plan for well MW-19 was implemented on April 13, 2004, or the first semiannual sampling event following submittal of the GWQA Plan on January 30, 2003. The owner/operator submitted a GWQAR dated July 31, 2004, for MW-19 within the time frame required by the GWQA Plan; however the first determination was deemed incomplete by Ohio EPA in letter to the owner/operator dated September 24, 2004. The GWQA Plan should be revised accordingly.

2. **The facility owner/operator remains in violation of OAC Rule 3745-27-10(E)(6), which requires the facility owner/operator to implement a GWQA Plan that determines the rate, extent and concentration of waste-derived constituents in the ground water. To return to compliance, the facility owner/operator must complete a first determination of the rate, extent and concentration of the ground water contamination detected at monitoring wells MW-19, AW-19A and MW-19C.**

The hydrogeological consultant for the Huron County Landfill states, "The owner/operator is not in violation of OAC Rule 3745-27-10(E)(6)" (subject document, p. 2). However, the rate, extent and concentration remain undefined in the ground water zones monitored at wells MW-19, AW-19A and MW-19C. To return to compliance, the owner/operator should do the following and revise the GWQA Plan accordingly.

- The owner/operator should address Comment 3 to determine if the adjacent property owner will allow the landfill owner/operator access to install and sample temporary ground water quality monitoring wells for determining rate, extent and concentration.
- The owner/operator should address Comment 4 if the adjacent property owner denies (or does not respond) to the landfill operator's access request letter.
- The owner/operator should complete the first determination using computer modeling or a different method, if the adjacent property owner denies (or does not respond) to the landfill operator's access request letter and the surface water monitoring provisions in Comment 4 cannot be utilized, or the surface water samples confirm the migration of the ground water contamination.

More Information Needed to Determine Compliance

3. **Compliance with OAC Rule 3745-27-10(E)(6), see Comment 2 for the rule citation, cannot be determined at this time. For Ohio EPA to determine compliance, the owner/operator should submit verification that the access request letter was delivered to the adjacent property owner and request that the adjacent property owner reply in writing within 14 days of receiving the access request letter. A copy of the certified mail delivery card or the return receipt for the access request letter may serve as verification of it being delivered. The access request letter and written response, if provided by the adjacent property owner, should be included in the revised GWQA Plan as supporting documentation.**

Ohio EPA understands the owner/operator "is in the process of sending another request to the adjacent landowner" (subject document, p. 2). Ohio EPA understands the adjacent property owner may stipulate access by limiting it to temporary ground water quality assessment wells that are installed by Direct Push Technologies (DPT) such as Geoprobe®. Temporary DPT wells are acceptable, but must be installed to meet the data quality objectives in OAC Rule 3745-27-10. Samples from properly constructed DPT wells should be equivalent in accuracy to conventional ground water samples. To achieve this equivalency, the well should be properly constructed, sealed, developed, purged, and sampled. Ohio EPA believes that the only way to achieve this level of data quality using DPT is with DPT wells installed using pre-packed well screens. Ohio EPA provides additional information on DPT wells in Chapter 15 of the Technical Guidance Manual available online at <http://www.epa.state.oh.us/ddagw/tgmweb.htm>.

4. **Compliance with OAC Rule 3745-27-10(B)(1), which allows the director to require, or otherwise authorize, the owner/operator to conduct surface water monitoring of seeps, springs or streams, as part of the ground water monitoring system, in areas where it may not be practical to place a monitoring well, cannot be determined at this time. For Ohio EPA to determine compliance, the owner/operator should do the following.**

If the adjacent property owner denies access (or does not respond) to the landfill operator's access request letter (Comment 3), then the owner/operator should determine if "seep-1", "seep-2" or any other surface water features are representative of the ground water quality that passes directly downgradient of the limits of waste and monitoring wells MW-19, AW-19A or AW-19C. The owner/operator should submit this information to Ohio EPA and include the elevation of the surface water feature(s), lateral and vertical extent including top and bottom elevations of the contaminated geologic zone(s), and geologic cross section(s) through the landfill, contaminated well, and the downgradient surface water feature. If the surface water feature meets these requirements, the owner/operator should revise the GWQA Plan to include the methods, procedures and equipment for sampling the feature(s), the constituents to be analyzed, and methods of analyzing the resulting data. This portion of the GWQA Plan should justify why the surface water feature is to be sampled in lieu of installing monitoring wells and request formal approval from the director to conduct surface water monitoring in accordance with this rule.

5. **Compliance with OAC Rules 3745-27-10(C)(1)(a), which requires the owner/operator to use the procedures documented within the sampling and analysis plan, cannot be determined at this time. For Ohio EPA to determine compliance, Section 3 and Table 3-1 in the GWQA Plan should be revised to include the order of preference of the sampling methods and equipment to be used at the ground water quality monitoring wells.**

The GWQA Plan is inconsistent with the owner/operator response regarding the equipment, techniques and methods to be used for ground water sampling. Section 3 and Table 3-1 in the GWQA Plan should be revised to be consistent with the owner/operator's September 23, 2008, response.

The owner/operator's September 23, 2008, response states, "It is our intent to collect ground water samples at all wells using submersible pumps and low-flow sampling techniques. The owner/operator's response also states, "There may be an occasion when we will have to use a bailer instead of a pump, or when it is more expedient to use a bailer to collect a sample" (subject document, p. 4).

6. **Compliance with OAC Rules 3745-27-10(C)(2)(c)(i), which requires the sampling and analysis plan include a detailed description of the equipment, procedures and techniques for evacuating the ground water quality monitoring wells, cannot be determined at this time. For Ohio EPA to determine compliance, the owner/operator should revise Section 3.3.1 in the GWQA Plan to clarify the factors or criteria the sampling team will use to determine when drawdown has stabilized.**

The water level should not be allowed to fall below the top of the well screen. The water level should not be allowed to fall to the pump intake level when the static water level is within the well screen at the beginning of sampling. A different sampling technique may be more appropriate, if the well yield is less than 100 milliliters per minute and drawdown cannot be stabilized to meet these criteria.

Statements

7. **The owner/operator's response to Comment 1 in the August 21, 2008, letter is inadequate. The owner/operator should respond to Comments 1 through 4 above to address this comment.**
8. **The owner/operator's response to Comment 2 in the August 21, 2008, letter is inadequate. The owner/operator should respond to Comments 5 and 6 above to address this comment.**
9. **The owner/operator's response to Comment 3 in the August 21, 2008, letter is adequate. No additional information is needed to address this comment.**
10. **The following information may be useful to the owner/operator; since the owner/operator intends to use submersible pumps and low-flow sampling techniques to sample all ground water quality monitoring wells at the facility (subject document, p. 4).**
 - measure the water level in the well before purging and use the information to meet the drawdown criteria to be implemented;
 - start the pump at the lowest speed setting to begin purging and slowly increase until water begins discharging;
 - check the water level and slowly adjust the pump speed until there is little or no drawdown or drawdown has stabilized;

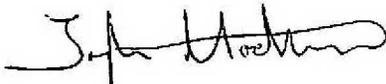
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- monitor field parameters (specific conductance plus two other parameters [pH, temperature, dissolved oxygen, or turbidity]) for stabilization once the drawdown of the water level has stabilized and document the measurements; and
- for new wells or established wells being sampled for the first time by the low-flow procedure, purge the well an additional 9 to 15 minutes after the initial stabilization, while retaking the stabilization parameters every three to five minutes and documenting the measurements.

This information will help support whether an appropriate amount of water has been purged from the system during the initial and subsequent sampling events. Ohio EPA provides additional information on low-flow sampling in Chapter 10 of the Technical Guidance Manual available online at <http://www.epa.state.oh.us/ddagw/tgmweb.htm>.

If you have any questions please feel free to contact Pete Sokoloski at the Ohio EPA Northwest District Office (419-373-4100). Any written correspondence should be sent to the attention of Tyler Madeker, Division of Solid and Infectious Waste Management, Ohio EPA Northwest District Office, 347 N. Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,



Tyler Madeker S.I.T.
Division of Solid and Infectious Waste Management
/llr

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