



State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

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

Re: Crawford County Landfill
Groundwater

December 21, 2007

Crawford County Board of Commissioners
Crawford County Courthouse
112 East Mansfield Street
Bucyrus, Ohio 44820

Mr. Gary Adkins
Santek Environmental
5128 Lincoln Highway East
Bucyrus, Ohio 44820

Dear Commissioners and Mr. Adkins:

The owner/operator is currently required to maintain a ground water detection monitoring program for the facility. The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the submittal (received November 14, 2007) for the September 4-5, 2007 semi-annual sampling event at the facility. The submittal was reviewed to determine compliance with OAC Rule 3745-27-10.

As approved March 14, 2001, the facility currently uses an alternate parameter list in accordance with OAC Rule 3745-27-10(D)(3) [effective June 1, 1994] for ground water monitoring. Potassium (76) is monitored and statistically analyzed semi-annually to replace ten metals parameters (1, 4 - 9, and 11 - 14) as indicator parameters. The replaced metals parameters are still required to be monitored annually, but no statistical analysis of these parameters is required.

Based on Ohio EPA's evaluation, the facility is presently operating under the correct ground water monitoring phase, the monitoring well network is adequate and the owner or operator should continue to monitor under the current program.

COMMENTS

Violations

1. **The owner/operator is in violation of OAC Rule 3745-27-10(C)(1)(a) which requires that the owner/operator use the procedures documented within the Ground Water Detection Monitoring Plan (GWDMP).**

To assure compliance with OAC Rule 3745-27-10(C)(1)(a) during future sampling events, the owner/operator needs to follow all purging and sampling procedures specified by the GWDMP.

Regarding field parameter stabilization during monitoring well purging, the GWDMP states **"Sampling will not be conducted until at least three well volumes have been removed and three consecutive measurements of pH, specific conductance, and temperature readings have stabilized to within the following limits:**

- pH ± 0.1 pH units
- Specific conductivity $\pm 3\%$
- Temperature $\pm 0.5^{\circ}\text{C}$

If pH, specific conductance, and temperature have not stabilized following the removal of three well volumes, pH, specific conductance, and temperature measurements will continue to be collected after the removal of each 2 well volume of water, during continued purging, until the stability criteria are achieved...."

However, during the September 2007 semi-annual sampling event, these field parameter stabilization criteria were not followed for pH or specific conductivity at P-8R and were not followed for pH or temperature at PZ-1. Further, supplemental purging (beyond three well volumes) was not performed for these wells. These procedures are necessary to assure the collection of representative ground water samples.

Recommendations

2. **Ohio EPA recommends that the font size for the ground water data summary tables and copies of the laboratory analysis data be increased for future submittals.**

The submittal includes ground water data summary tables and copies of the laboratory analysis data as required. However, the font size used for this data in the submittal is very small and is difficult to read.

3. **Ohio EPA recommends that the GWDMP be revised to document that the method of sample shipment will be documented on the chain-of-custody forms.**

The submittal includes copies of the chain-of-custody forms that were used for the September 2007 sampling event as required. These forms include a place for documentation of the method of shipment (i.e., hand delivery, FedEx, etc.). This information was not filled out for the September 2007 sampling event, but was filled out for the October 3, 2007, resampling event.

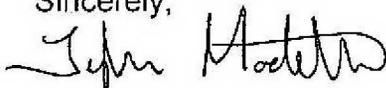
The GWDMP does not explicitly document that the method of shipment will be documented on the chain-of-custody forms. However, such information is an important part of the chain-of-custody process.

Statements

- 4. The submittal includes ground water data summary tables as required. However, for the September 2007 sampling event, the pH and specific conductivity data was not included on the summary tables.**

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 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

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pc: Environmental Health Division, Crawford County Health Department
Mr. Jeffrey Arp, CEC
Mr. Rob Burnette, Santek Environmental

File: Crawford County; Crawford County Landfill, Ground Water

ec: Abdul Smiley, DSIWM-NWDO
Tyler Madeker, DSIWM-NWDO
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