



Environmental
Protection Agency

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

April 28, 2011

Paul Terrell
Village Administrator
Village of Cedarville
P.O. Box 51
Cedarville, Ohio 45314

**RE: Village of Cedarville Closed Landfill,
Semi-Annual Monitoring Well Sampling Report (November 16, 2010)**

Dear Mr. Terrell:

At the request of the Division of Solid and Infectious Waste (DSIWM), the Division of Drinking and Ground Water (DDAGW) has reviewed the groundwater monitoring data for the October 20, 2010 sampling event for the closed Cedarville Landfill. The laboratory report of the data was submitted on November 23, 2010 to Ohio EPA Southwest District Office (SWDO). The following violations are a result of the review.

1. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10(C)(8).** No statistical analysis of the data was submitted as required by OAC Rule 3745-27-10(C)(8) which states;

Determination of a statistically significant increase over background. The owner or operator shall determine whether or not there is a statistically significant increase over background for each parameter or constituent required to be statistically analyzed within the ground water monitoring program. The owner or operator shall make this determination each time he assesses ground water quality. To determine whether a statistically-significant increase or decrease has occurred, the owner or operator shall compare the ground water quality of each parameter or constituent at each downgradient ground water monitoring well to the background value of that parameter or constituent according to the statistical procedures specified in paragraphs (C)(6) and (C)(7) of this rule.

2. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10(C)(3)(b).** No determination of the direction of groundwater flow was made for the uppermost aquifer as required by OAC Rule 3745-27-10(C)(3)(b), which states;

The owner or operator shall at least semiannually and in conjunction with any major sampling event involving more than half the wells in the system or zone monitored determine, for the uppermost aquifer system and for all significant

zones of saturation monitored, the direction of ground water flow each time ground water elevation measurements are performed.

No determination of ground water flow direction was made for the uppermost aquifer for the November 16, 2010 sampling event. As requested in a meeting at Cedarville on 5/20/2010, the Village provided the Ohio EPA with surveyed well data on July 28, 2010. This information was necessary for the facility to construct potentiometric surface maps (ground water flow maps) of the uppermost aquifer system and/or significant zones of saturation. With the surveyed data, the Village should be able to construct these maps and submit them to the Ohio EPA for review each semiannual sampling event as required. Cedarville has yet to submit ground water flow maps.

3. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10(C)(3)(d).** Potentiometric surface maps were not submitted as required by OAC Rule 3745-27-10(C)(3)(d) which states;

Potentiometric maps shall be constructed using the collected ground water elevation measurements and shall be included with the sampling data submittal.

4. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10(C)(10)(b), (c), (e) and (f).** The information provided by the facility only included the analytical results from the laboratory and did not include the following: field and laboratory quality assurance / quality control data, chain of custody and sample receipt forms, statistical analysis, or potentiometric maps results as required by OAC Rule 3745-27-10(C)(10)(b), (c), (e), and (f).
5. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10 (D)(5)(a)(ii)(a) and OAC 3745-27-10 (D)(5)(a)(iii).** OAC 3745-27-10(D)(5)(a)(ii)(a) and OAC 3745-27-10(D)(5)(a)(iii) requires that for *"monitoring wells screened within the uppermost aquifer system beneath the sanitary landfill facility, the owner or operator shall, during the active life of the facility (including final closure) and the post-closure care period, monitor the wells for... parameters 1 through 66 in appendix I of this rule... and statistically analyze the results from wells screened in the uppermost aquifer system for the parameters specified in paragraph (D)(5)(a)(i)."*

The Cedarville landfill has not been sampling or statistically evaluating Zinc (appendix I – constituent 15) on a semi-annual basis since at least the December 2008 2nd semi-annual sampling event. Additionally, no appendix I parameters

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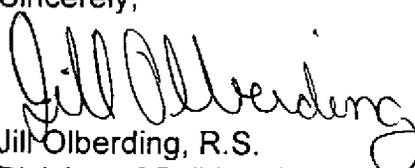
have been statistically evaluated since monitoring at the landfill commenced other than time series graphs.

6. **The owner/operator of the closed Cedarville Landfill is in violation of Ohio Administrative Code (OAC) Rule 3745-27-10(B)(3).** OAC 3745-27-10(B)(3) requires, "...All monitoring wells shall be designed, installed, and developed in a manner that allows the collection of ground water samples that are representative of ground water quality in the geologic unit being monitored ..."

Information contained in Ohio EPA files shows that monitoring well MW-3 purges dry and usually takes several hours to recover sufficiently to allow for the collection of a complete set of appendix I constituents. The well always yields turbid samples and attempts to redevelop the well have been unsuccessful. This suggests that MW-3 cannot meet the requirements of this rule and should be replaced.

Please address the above violations and submit all requested information in future submittals. If you have any questions please contact John McGinnis at (937) 285-6357.

Sincerely,



Jill Olberding, R.S.

Division of Solid and Infectious Waste Management

JO/rb

cc: John McGinnis, Ohio EPA DDAGW/SWDO
ec: Beth Lackey, Greene County Combined Health District

