



State of Ohio Environmental Protection Agency

Northwest District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Laura H. Powell, Acting Director

Re: September 2006 Semi-Annual Sampling Event
Defiance County Landfill, Defiance County

January 25, 2007

Defiance County Commissioners
500 Court Street
Defiance, OH 43512

Dear Commissioners:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the ground water quality report for the September 2006 semi-annual sampling event and semi-annual determination of rate, extent and concentration for the Defiance County Landfill (facility). The report was dated December 7, 2006. Ohio EPA's comments are listed below.

COMMENTS

Violations

1. OAC Rule 3745-27-10(E)(8)(f)(ii): The owner/operator is in violation of OAC Rule 3745-27-10(E)(8)(f)(ii) as described below.

OAC Rule 3745-27-10(E)(8)(f)(ii) requires that for a Compliance Monitoring Program, the owner/operator **"Commence statistically analyzing the sampling results of constituents to be monitored in accordance with paragraph (E)(8)(C) of this rule and not being monitored in accordance with paragraph (E)(8)(f)(i) of this rule with the initial sampling event required under this paragraph."**

Additionally, OAC Rule 3745-27-10(E)(8) states **"...The compliance monitoring plan shall be implemented with the first semiannual sampling event that occurs after the submittal of the compliance monitoring plan..."**

For clarification, the owner/operator is currently required to maintain a compliance monitoring program for monitoring wells MW-11, MW-15A and MW-32A. The Compliance Monitoring Plan (CMonP) was submitted in June 2006. Therefore, compliance monitoring statistical analysis was required beginning with the September 2006 semi-annual sampling event as this event was the first semi-annual sampling event after the submittal of the CMonP. Further, OAC Rule 3745-27-10(E)(8)(C) regards (in this instance) constituents 16-62, 65, 66 and 71 of Appendix I of OAC Rule 3745-27-10; whereas OAC Rule 3745-27-10(E)(8)(f)(i) regards (in this instance) ammonia (63) and chloride (64).

Therefore, OAC Rule 3745-27-10(E)(8)(f)(ii) requires that beginning with the September 2006 sampling event, the owner/operator perform semi-annual statistical analysis for compliance monitoring wells MW-11, MW-15A and MW-32A for constituents of Appendix I of OAC Rule 3745-27-10 numbered 16-62 (VOCs), sodium (65), potassium (66) and total alkalinity (71). *Note: Statistical analysis of ammonia (63) and chloride (64) at the compliance monitoring wells is still required, but is regulated by OAC Rule 3745-27-10(E)(8)(f)(i), rather than (ii).*

For the September 2006 semi-annual sampling event, statistical analysis in accordance with OAC Rule 3745-27-10(E)(8)(f)(ii) was performed for sodium and potassium at MW-11 and MW-15A, but was not performed for alkalinity at MW-11 or MW-15A or for sodium, potassium or alkalinity at MW-32A as required (*Note that as VOCs were not detected, no statistical analysis was required*). Therefore, the owner/operator is in violation of OAC Rule 3745-27-10(E)(8)(f)(ii).

To regain compliance with OAC Rule 3745-27-10(E)(8)(f)(ii), the owner/operator needs to complete the required statistical analysis for alkalinity at MW-11 and MW-15A and for sodium, potassium and alkalinity at MW-32A for the September 2006 sampling event.

Statements

2. The submittal documents that the ground water flow rate for the basal sand unit was calculated to be 0.16 feet/day towards the northeast. This ground water flow rate translates to a rate of approximately 58 feet per year.

As indicated by the submittal, the ground water in the basal sand unit in the MW-11/MW-8A assessment area has only been impacted by elevated levels of ammonia and chloride to date. As shown on Figure 23 of the submittal, the zone of impact for the MW-11/MW-8A assessment area is believed to emanate from the landfill near MW-11 and MW-8A and extend towards the northeast beyond the locations of MW-8A, MW-11 and MW-15A, but does not reach the location of MW-32A. As delineated, the area of impact is approximately 400 feet long and approximately 300 feet wide, occupying approximately 2.75 acres.

Recommendations

No action on the part of the owner/operator is required by rule to address the following recommendations. However, in Ohio EPA's opinion, the recommendations will improve the clarity of the referenced document and/or reduce further misunderstandings between Ohio EPA and the facility owner/operator.

3. The submittal included potentiometric surface maps, which are required by OAC Rule 3745-27-10(C)(10)(f).

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However, the potentiometric surface maps for the 675 sand and the basal sand are very small scale and are difficult to review. Therefore, Ohio EPA recommends that larger scale potentiometric surface maps be used for future ground water quality data submittals.

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 Mike Reiser, Division of Solid and Infectious Waste Management, Ohio EPA Northwest District Office, 347 N. Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,

Michael A. Reiser

Michael A. Reiser, R.S.
Environmental Specialist
Division of Solid and Infectious Waste Management

/csl

pc: Mr. Tim Houck, Defiance County Landfill
Ms. Beth Brown, Eagon & Associates
Mr. Ken Brock, DDAGW, NWDO
Mr. Jack Leow, DDAGW, NWDO
\\ File: Defiance County, Defiance County Landfill, Ground Water

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