



State of Ohio Environmental Protection Agency

Northwest District Office

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

Re: Semi-Annual Report of Assessment Activities
St. Marys Landfill, Auglaize County

June 13, 2008

Mr. Thomas Hitchcock
Director of Public Service and Safety
City of St. Marys
101 East Spring Street
St. Marys, Ohio 45885

Dear Mr. Hitchcock:

The Ohio Environmental Protection Agency (Ohio EPA) completed a review of the report dated April 7, 2008 and received April 7, 2008. This submittal contains the semi-annual report of assessment activities and determination of rate, extent and concentration for the St. Marys Landfill. Following are Ohio EPA comments relating to the review of this document.

COMMENTS

VIOLATIONS

- 1. The City of St. Marys continues to be in violation of OAC Rule 3745-27-10 (E)(10), which requires the owner/operator to perform a semiannual determination of rate, extent and concentration, and OAC Rule 3745-27-10 (E)(12), which requires a semiannual assessment activities report be submitted which contains all data generated as part of the assessment program since the previous report. The City of St. Marys needs to submit the data for assessment wells MW-5, BW-5 and BW-6 and determine the rate, extent and concentration of the plume(s) in the area of these wells. In addition, the owner/operator needs to determine rate, extent and concentration for all affected zones. There are three significant zones of saturation and one uppermost aquifer system that are affected.**

In the current submittal of the semiannual assessment activities report the owner/operator provided the concentration data for assessment wells MW-2, MW-3, MW-4, AW-1, AW-2, AW-3, and AW-4. The owner/operator also provided their interpretation of the rate and extent information in the area of these wells. Wells MW-5, BW-5 and BW-6 are considered part of the assessment program by the owner/operator as documented in previous submittals. Ohio EPA concurs with these findings. Since these three wells are part of the assessment program, the rate, extend and concentration must be determined and the data must be included in the semiannual report.

- 2. The City of St. Marys continues to be in violation of OAC Rule 3745-27-10(E)(3) which requires that the owner/operator submit a ground water quality assessment plan within one hundred and thirty-five days of notification of a statistically significant increase over background. The City of St. Marys needs to include wells MW-5, BW-5, and BW-6 in the site's assessment monitoring plan.**

3. **The City of St. Marys continues to be in violation of OAC Rule 3745-27-10(C)(1) which requires that the ground water monitoring program include consistent sampling and analysis procedures that are protective of human health and the environment and that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and downgradient wells. The owner/operator needs to accurately determine the ground water hydraulic gradient and utilize it in all future ground water velocity calculations to produce an accurate ground water flow velocity.**

On page 2 of the submittal the owner/operator states, "i = Horizontal hydraulic gradient based on static water levels recorded on July 30, 2007 (0.004 ft/ft for the significant saturated unit)". On Figure 1, Potentiometric Surface Map for the Significant Saturated Units, the owner/operator indicates that the, "Average Hydraulic Gradient = 0.004 Ft/Ft." On both page 2 and on Figure 1 the owner/operator calculates the ground water flow velocity as being 0.060 to 0.094 ft/day for the MW-2 Area; 0.002 to 0.003 ft/day for the MW-3 Area; and 0.020 to 0.031 for the MW-4 Area.

An inspection of the potentiometric surface map in Figure 1 indicates that the gradient generally ranges from about 0.00523 ft/ft to about 0.00571 ft/ft. The average would, therefore, be about 0.0055 ft/ft. With the new gradient the velocity ranges from 0.082 ft/day to 0.129 ft/day at well MW-2; 0.003 ft/day to 0.005 ft/day at MW-3; and 0.024 ft/day to 0.043 ft/day at MW-4. These are equivalent to about 29.9 ft/yr to 47.1 ft/yr at MW-2; 1.07 ft/yr to 1.69 ft/yr at MW-3; and 9.95 ft/yr to 15.7 ft/yr at MW-4. The velocities determined with the new hydraulic gradient are noticeably greater than those using the old gradient.

STATEMENTS

4. **The owner/operator is reminded that Ohio EPA is not and has not negotiated the locations for assessment wells. Also, not determining the rate, extent and concentration in the area of well MW-5 could result in a violation of OAC Rule 3745-27-10 (E)(6).**

On page 3 of the submittal, the owner/operator states, "As previously discussed with Ohio EPA, monitoring well MW-5 is potentially impacted by chloride and negotiations with Ohio EPA are ongoing to determine possible assessment well locations. The determination of rate and extent in the vicinity of monitoring well MW-5 will be submitted upon the completion of negotiations with Ohio EPA, if merited."

Assessment well locations are determined by an evaluation of site-specific hydrogeological data. The proposed number, location, depths, installation method and construction of assessment monitoring wells are to be included in the owner/operator's ground water quality assessment plan as provided in OAC Rule 3745-27-10 (E). The owner/operator must meet the requirements of OAC Rule 3745-27-10. In addition, chloride concentration data submitted by the owner/operator has shown that well MW-5 is an affected well and has been an affected well for some time.

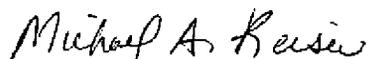
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In addition, the owner/operator has indicated that well MW-5 has been incorporated into the assessment program for the facility. OAC Rule 3745-27-10 (E)(6) requires that the owner/operator implement the ground water assessment plan and determine rate, concentration and extent. Figure 2 in Appendix A-2 of the submittal is inconsistent with the statement noted above made by the owner/operator. It shows that the extent of the plume has not been determined in the area of MW-5.

5. **The legend for Figure 1 contains a line that is labeled "Proposed Limit of Solid Waste"**. This is an unusual label for a site which is no longer operating. The "Proposed Limit of Solid Waste", as defined in the legend, could not be found on the map.

If you have any questions please feel free to contact Randy Skrzyniecki at the Ohio EPA Northwest District Office (419-373-3149). Any written correspondence needs to be sent to the attention of Mike Reiser, Division of Solid and Infectious Waste Management, Ohio EPA Northwest District Office, 347 Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,



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

/csl

pc: James Lavrich, Hull & Associates, Inc.
Todd Flagle, City of St. Marys
File: Auglaize County, St. Marys Landfill, Ground Water

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