Ohio | Environmental Protection Agency

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

Re: Residual Waste Landfill
Groundwater

May 26, 2011

Mr. Andy Cvitkovich, Engineering Manager
United States Gypsum Company
Gypsum, Ohio 43433

Dear Mr. Cvitkovich:

The U.S. Gypsum Landfill is a class III closed residual waste landfill that is located in Portage Township, Ottawa County, Ohio. The solid waste identification number is 62-00-07. The company is required to close the facility according to the requirements of OAC 3745-30, an approved Closure Plan, and the Director's Findings and Orders dated October 12, 1994. The Ohio Environmental Protection Agency (Ohio EPA) reviewed the *"Statistical Report of Groundwater Quality"* received January 3, 2011.

The facility is conducting detection monitoring for wells MW1-3, 6, 9 and 10, and assessment monitoring for wells MW4, 5, 11, 12, 13, and 14. The owner/operator should also be conducting assessment monitoring for wells MW 7 and 8. The owner/operator was cited in violation for not conducting semiannual assessment monitoring of the ground water in wells MW7 and 8.

A ground water quality assessment plan was submitted to Ohio EPA on April 6, 2007, due to the statistically significant increases for chloride and pH in well MW4 and chloride in well MW5 above background concentrations for two consecutive sampling events. Ohio EPA comments concerning the assessment plan were sent to the owner/operator on July 10, 2007.

It has been determined in the past that radial or multi-directional ground water flow exists at the site. The water level data collected during the sampling events starting with the November 2008, sampling event appeared to indicate the flow was not radial. The water levels collected during the October 2010, sampling event indicate that the ground water flow direction is again radial or multi-directional indicating that the change was not permanent.

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402-9398

419 | 352 8461
419 | 352 8468 (fax)
www.epa.ohio.gov

COMMENTS

VIOLATIONS

1. **U.S. Gypsum Company continues to be in violation of Ohio Administrative Code (OAC) Rule 3745-30-08(E)(4) requiring the assessment wells to be analyzed semiannually for Appendix III and parameters determined to be released. The owner/operator needs to sample wells MW7 and MW8 as required by the rule. This violation was previously cited in the Ohio EPA letter dated October 12, 2010.**

   According to the Groundwater Quality Assessment Plan dated April 2007, page 19, "Nickel was reported just slightly above the PQL in groundwater samples collected from MW-7 and MW-8 at 0.0196 mg/L and 0.026 mg/L. Statistical significances have not been identified for indicator parameters analyzed in these monitoring wells." According to Tables 4, 6 and 9 the background concentration for nickel is <0.01 mg/L.

   The concentration of nickel in wells MW7 (19.6 ug/L) and MW8 (26.0 ug/L) was at least double the concentration of the background wells (<10 ug/L). The background wells were reported as being less than the detection limit for nickel. Nickel was determined to be above background (< 10 ug/L) in wells MW7 and MW8. Therefore, wells MW7 and MW8 should be in assessment. Wells determined to be in assessment are required to be sampled semiannually according to OAC Rule 3745-30-08(E)(4). In order to return to compliance the owner/operator needs to sample wells MW7 and MW8 according to OAC Rule 3745-30-08(E)(4) as soon as possible and continue to be sampled on a semiannual basis.

Evaluation of Previously Cited Violation

2. **Comment 2 of the Ohio EPA letter dated October 12, 2010, was a violation of OAC Rule 3745-30-08(E)(2), requiring a written report containing the determination of the rate and extent of migration of the waste-derived constituents in the ground water be submitted to Ohio EPA in the time frame specified in the submitted ground water quality assessment plan.**

   The owner/operator did not submit the determination by December 2009 as detailed on Table 15 of the ground water quality assessment plan.

It is recommended that this violation be rescinded based on the discussion below and if the due date for the submittal of the written report is changed in the ground water quality assessment plan to give an actual date for the submittal of the written reports required by OAC Rule 3745-30-08-(E)(2) for the two phases (MW4-MW5 area and the MW7-MW8 area).

The title of Table 15 is "Estimated Schedule of Assessment Activities". The December 2009 due date for the written report was only an estimate. The title of Table should be revised by removing the word "Estimated".

The Ohio EPA met with US Gypsum and Hull and Associates, Inc. (HAI) on March 10, 2011, to discuss the determination of rate, extent and concentration. Preliminary extent and concentration maps were presented by HAI. It was agreed that a phased approach to the assessment would be acceptable. According to Hull and Associates, the written report required by OAC Rule 3745-30-08(E)(2) is being worked on and will be submitted in the near future.

More Information Needed to Determine Compliance

3. **Compliance with Ohio Administrative Code (OAC) Rule 3745-30-08(C)(1), requiring consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of ground water quality, cannot be determined at this time . The owner/operator needs to provide to the Ohio EPA the case narrative included with the results for the October/December 2009 sampling events.**

   According to page 27 of 27, under Certification Summary, "... shall be documented on the Chain of Custody and/or Case Narrative included with this report." The Ohio EPA needs to review the case narrative to ensure the data are representative of the ground water quality. This comment was included in the Ohio EPA letter dated November 5, 2009, concerning the review of the May 2009, sampling data, the letter dated February 12, 2010, concerning the review of the December 2009, sampling data, and the letter dated October 12, 2010, concerning the August 20, 2010 sampling data.

4. **Compliance with Ohio Administrative Code (OAC) Rule 3745-30-08(E)(6), requiring the owner/operator to continue to determine the rate, extent and concentrations of the waste derived constituents semiannually, cannot be determined at this time.**

The owner/operator needs to explain how the report submitted to Ohio EPA meets this requirement, and needs to submit maps showing the extent and concentrations of the waste derived constituents with every semiannual report including this report.

The report does not contain maps of the extent and concentrations of the assessment parameters. The narrative portion of the report does not describe the extent and concentrations of the assessment parameters. This comment was included in the Ohio EPA letter dated November 5, 2009, concerning the review of the May 2009, sampling data. According to Kelly Bensman of Hull and Associates, Inc., the response to the November 5, 2009, letter was to be submitted the week of January 18, 2010. This comment was also included in the Ohio EPA letters dated February 12, 2010, and October 12, 2010. The Ohio EPA has not received the response.

If you have any questions please contact Jack Leow at the Ohio EPA, Northwest District Office, Division of Drinking and Ground Waters, 347 N. Dunbridge Rd., Bowling Green, Ohio 43402. Submit all reports/data to Tyler Madeker, Ohio EPA, Northwest District Office, Division of Materials and Waste Management, 347 N. Dunbridge Rd., Bowling Green, Ohio 43402.

Sincerely,

Tyler Madeker, R.S.
Environmental Specialist
Division of Materials and Waste Management

/llr

pc: Jack Leow, DDAGW-NWDO
William Petruzzi, Hull & Associates, Inc.
File: DMWM-SW, Ottawa County, US Gypsum, Groundwater

ec: Habib Kaake, DMWM-NWDO
Mike Reiser, DMWM-NWDO

id: 5-10006