



**Environmental
Protection Agency**

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

April 11, 2011

**RE: MT. EATON LANDFILL
GROUND WATER
NOTICE OF VIOLATION
WAYNE COUNTY**

CERTIFIED MAIL

Mr. Joe Balog
Norton Environmental Company
6055 Rockside Woods Blvd., Suite 100
Independence, Ohio 44131

Mr. Freeman Mullet
Mount Eaton Reclamation, Inc.
P. O. Box 256
Mount Eaton, OH 44659

Twilight Mining
P.O. Box 403
Berlin, Ohio 44610

Dear Gentlemen:

The Ohio Environmental Protection Agency (Ohio EPA) has completed a review of two documents entitled "2010 First Semiannual Ground Water Assessment Results and Status Report" and "2010 Second Semiannual Ground Water Assessment Results and Status Report," concerning ground water monitoring activities at the Mt. Eaton Landfill located in Wayne County, Ohio. Ohio EPA received the first semiannual report on August 19, 2010 and the second semiannual report on February 28, 2011. The documents are dated August 17, 2010 and February 24, 2011, respectively. Both documents were prepared by Eagon & Associates, Inc. on behalf of Mt. Eaton Landfill.

The facility no longer accepts waste, and all the wells/seeps in the ground water monitoring system are in the assessment monitoring program. The sampling events, which took place the week of June 6, 2010, and December 13, 2010, were conducted in accordance with the facility's Ground Water Quality Assessment Plan (GWQAP), revised June 2009, and December 2010, respectively. The June 2009 plan was revised to incorporate the installation of dedicated bladder pumps in all monitoring wells and both plans were revised to push back the schedule for making a first determination of rate, extent, and concentration, in accordance with Ohio Administrative Code (OAC) 3745-27-10(E)(6).

Also provided in these reports are the ground water monitoring system evaluations, in accordance with OAC 3745-27-10(B)(5), and the semiannual assessment activities report, in accordance with OAC 3745-27-10(E)(12).

During the 2010 first and second semiannual ground water sampling events, several volatile organic compounds (VOCs) were detected in a variety of wells, which is consistent with previous sampling events (see Table 1 below). The water quality parameters also appear to remain consistent with past results. The following table constitutes a list of the wells that appear to be impacted from the landfill, with the exception of MW-23R which did not have VOCs detected the past two events.

Table 1

	VOC equal to or above PQL	June 2010 results in ug/L	Dec. 2010 results in ug/L
MW-8R	1,1-DCA cis-1,2-DCE chloroethane bis(2-ethylhexyl)phthalate	5.6 3.6 - -	4.3 2.7 1.1 8.0
MW-13RR	1,1-DCA	1.1	-
MW-15R	1,1-DCA	1.2	-
MW-16R	1,1-DCA cis-1,2-DCE	1.6 -	1.4 1.2
MW-19	1,1-DCA dichlorodifloromethane	1.6 2.0	1.5 2.6
MW-20D	dichlorodifloromethane	6.3	5.8
MW-20R	1,1-DCA cis-1,2-DCE	1.0 1.2	- 1.1
MW-21	chloroethane	2.2	-
MW-21D	bromoform chlorodibromomethane bromomethane	- - -	2.9 1.4 1.7
MW-22	cis-1,2-DCE	1.8	1.5

The ground water monitoring program at the closed Mt. Eaton Landfill is regulated by OAC 3745-27-10, as effective August 15, 2003.

Upon review of the semi-annual assessment activities reports, Ohio EPA has identified the following violation:

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1. Compliance with OAC 3745-27-10(E)(1), requiring that the owner/operator implement a ground water quality assessment plan capable of determining the extent of migration of waste derived constituents in the ground water.

Based on a review of the semiannual assessment activities reports, no assessment activities, other than sampling, took place from January to December of 2010. The December 2010 report also indicates that no specific activities are planned for the first half of 2010, other than sampling. However, to make a first determination of rate, extent, and concentration, in accordance with OAC 3745-27-10(E)(6), the owner/operator is required to implement a ground water quality assessment plan capable of determining the extent of migration of waste derived constituents in the ground water, in accordance with OAC 3745-27-10(E)(1). Currently, the owner/operator is not implementing a plan capable of this. To make this determination, additional wells will be required.

Based on a review of the ground water quality results, and a comparison of downgradient wells to background, additional assessment wells are necessary to determine the lateral, and/or vertical, extent of contamination. The data collected from the 2010 second semiannual event was compared to the results collected from monitoring wells MW-24R and MW-24D, representing background in the UAS (Homewood Sandstone) and the lower assessment zone (Mercer Limestone), respectively. Three areas were identified as requiring additional information to determine the extent of apparent contamination:

- laterally southeast of MW-8R
- laterally south west of MW-13RR and MW015R
- laterally north of MW-21D, and vertically near MW-21D.

MW-8R

Several VOCs have consistently been detected in monitoring well MW-8R, including 1,1-dichloroethane, cis-1,2-dichloroethene, chloroethane. Bis (ethylhexyl) phthalate, a semivolatile organic compound (SVOC), was also recently detected. The nearest monitoring point downgradient of MW-8R appears to be seep S-9, located approximately 900 feet to the south. Although the analytical results from seep S-9 appear to be unaffected, the lateral extent of the contamination detected in MW-8R is unclear. Ohio EPA recommends installing at least one additional well between monitoring well MW-8R and seep S-9, in the Homewood Sandstone.

MW-13RR and MW-15R

Although no VOCs were detected during the 2010 second semiannual event, 1,1-dichloroethane has been detected in these two wells in the past, including the 2010 first semiannual event. In addition, various indicator parameters are elevated above background, including ammonia, sodium, and chloride. When comparing the results from these two wells to background monitoring well MW-24R, it is clear these wells have been impacted. However, without a monitoring point downgradient from these wells, it is unclear what the lateral extent of contamination is. To meet the requirement of OAC 3745-27-10(E)(6), and determine the extent of contamination, at least one additional well should be installed downgradient of MW-13RR and MW15R.

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MW-21D

Several VOCs were detected in monitoring well MW-21D, including bromoform, chlorodibromomethane, and bromomethane. Although upper aquifer system (UAS) monitoring well MW-21, nested with MW-21D, appears unaffected, the Mercer Limestone appears to have been impacted. Since the December 2010 report did not offer any other explanation for these detections, Ohio EPA assumes they are a result of the landfill. Therefore, the owner/operator is required to determine the extent of this contamination, both laterally and vertically, in accordance with OAC 3745-27-10(E)(6). To establish lateral extent, an additional well should be installed in the Mercer Limestone downgradient from MW-21D. To establish vertical extent, a deeper well should be installed near MW-21D, much like monitoring well MW-20DD.

Ohio EPA has the following recommendations regarding the submitted documents:

- 1. Ohio EPA recommends that the owner/operator provide a comparison of ground water monitoring data that has been detected to background for all future events.**

Section 10.1 of the GWQAP indicates that comparisons will be made using various procedures to determine which ground water monitoring data are above background. Ohio EPA recommends that the owner/operator submit the comparisons specified in Section 10.1 of the GWQAP, or otherwise explain which ground water monitoring data are above background for all future events.

For example, semiannual reports could contain a table comparing the results from each well to the background established for each detected parameter. Including this table in the semiannual reports would provide an easy reference to see which parameters continue to be an issue at each well. The table should contain the established background for each parameter detected, along with the concentration of each parameter detected from each well, highlighting which results were detected above background.

- 2. Ohio EPA recommends that the owner/operator ensure that the data collected from the newly installed, dedicated pumps are statistically comparable to historic, background data.**

Although all the monitoring wells are in assessment, and statistical analysis is not expected to be performed, a comparison to background may be necessary in the future to ensure compliance with OAC 3745-27-10(C)(6) and (C)(7). Unless the owner/operator can show that the data collected from the new pumps is comparable, background would have to be re-established prior to performing statistical analysis or any other comparison to background. To avoid re-establishing background, Ohio EPA recommends making a demonstration that the new sampling method produces statistically similar results as the previous sampling method (bailer).

- 3. Ohio EPA recommends that the owner/operator reduce the size of the data summary tables to include only those constituents that were detected.**

OAC 3745-27-10(E)(5)(c) requires that the owner/operator identify all constituents that have been detected, however, including the non-detects makes the tables unnecessarily large and hard to read,

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especially Appendix II. Ohio EPA recommends that, in the future, tables be reduced to only include constituents that have been detected. This can be simultaneously accomplished by following the example in Comment 1 above, as long as the non-detect results are contained in the laboratory analysis results.

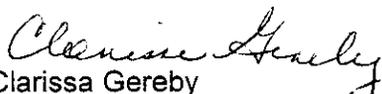
Ohio EPA has the following comments regarding the ground water monitoring system evaluation, in accordance with Ohio Administrative Code (OAC) 3745-27-10(B)(5), and the semiannual assessment activities report, in accordance with OAC 3745-27-10(E)(12):

1. Based on the evaluation, in accordance with OAC 3745-27-10(B)(5), the ground water monitoring system continues to comply with OAC 3745-27-10(B).
2. Based on the evaluation, the semiannual assessment activities reports adequately document the activities that took place during 2010 (January to December) in accordance with OAC 3745-27-10(E)(12).

Nothing in this letter shall be construed to authorize any waiver from the requirements of any other applicable federal or state laws or regulations except as specified herein. This letter shall not be interpreted to release the owner or operator from responsibility under Ohio Revised Code (ORC) Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.

Please submit the information requested within 60 days of the receipt of this letter. If you have any technical questions regarding this review, please contact Russ Kocher, Division of Drinking and Ground Waters, at (330) 963-1203. Please submit all correspondence to Clarissa Gereby, Division of Solid and Infectious Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,


Clarissa Gereby
Environmental Specialist
Division of Solid & Infectious Waste Management

CG:cl

cc: John Cayton, AGO
Ken Eng, Wayne County Health Department
Judy Bowman, DSIWM, NEDO
Bruce McCoy, DSIWM, CO
Russ Kocher, DDAGW, NEDO
Dave Matthews, Norton Environmental
FILE: [Kurko/LAND/Mt. Eaton LF/GRO/85] Project ID# 3456, 3787

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