



Environmental
Protection Agency

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

March 8, 2011

Mr. John King
Mansfield Plumbing Products, LLC.
150 East First Street
Perrysville, Ohio 44864

Dear Mr. King:

The Ohio Environmental Protection Agency (Ohio EPA) reviewed the "*Statistical Evaluation of September 2010 Semiannual Ground Water Monitoring Results*" for compliance with the Ohio Administrative Code (OAC) Rule 3745-30-08. The document was received on December 10, 2010. The landfill is in assessment monitoring for statistically significant increases (SSI) in total dissolved solids (TDS), dissolved copper, and dissolved zinc at monitoring wells MW-3, MW-4, MW-6, and MW-7. Wells MW-3A and MW-6R were not sampled and reported to be "dry" during the September 2010 annual assessment monitoring event, while TDS remained statistically significant at wells MW-3, MW-4 and MW-7 after this event.

COMMENTS
Violations

- 1. Mansfield Plumbing Products (MPP) is in violation of OAC Rule 3745-30-08(C)(8), which requires that all ground water analysis results, statistical analysis results, and ground water elevation data generated in accordance with paragraphs (C), (D), (E), and (F) of this rule be submitted to Ohio EPA not later than 75 days after sampling the well. To return to compliance, MPP should submit the analysis results (i.e., laboratory data sheets) for the March 2010 sampling event for monitoring wells MW-1, MW-6 and MW-7.**

While reviewing the September 2010, sampling event report and compiling the information in Comment 2 below, it was found that MPP never submitted the analysis results for monitoring wells MW-1, MW-6 and MW-7 for the March 2010, sampling event. The chain of custody sheets in the March 2010, sampling event report indicate wells MW-1, MW-6 and MW-7 were sampled March 29, 2010; however the analysis results were never submitted.

More Information Needed to Determine Compliance

2. Compliance with OAC Rule 3745-30-08(C)(6)(g), which requires that background data be added only in blocks of data resulting from the analysis of four or more statistically independent samples after the data have been statistically compared to the current background data and no statistical differences are detected, unless another method is deemed acceptable to the director, cannot be determined at this time. For Ohio EPA to determine compliance, MPP should remove the September 2009, result for dissolved zinc from the background data set of well MW-1, or provide justification for including this data in the background data, according to the information below.

Ohio EPA guidance states: "If there is a single detection greater than the practical quantitation limit (PQL) and detections above the method detection limit (MDL) comprise less than 50 percent of the background data set, any value greater than the highest PQL among the background data shall be considered a statistical outlier." Based on the information in the table below, the September 28, 2009, result for dissolved zinc at MW-1 is an outlier, and all other results are "non-detect." The September 28, 2009, result should be excluded from the background data set.

| Dissolved Zinc at Upgradient Well MW-1 (concentrations in ug/L) | | | | | |
|--|---------------|------------|------------|--|---|
| Sampling Date | Result | MDL | PQL | Duplicate Result | Comment |
| 9/20/2007 | not detected | 8.8 | 30 | not detected (MW-1 duplicate) | |
| 11/28/2007 | not detected | 3.0 | 10 | not detected (MW-1 duplicate) | |
| 1/16/2008 | not detected | 8.8 | 30 | not detected (MW-1 duplicate) | |
| 3/12/2008 | not detected | 3.0 | 10 | not detected (MW-1 duplicate) | |
| 5/8/2008 | not detected | 3.0 | 10 | not detected (MW-1 duplicate) | |
| 6/24/2008 | 37 | 3.3 | 10 | not detected (MW-1 duplicate) | Initial MW-1 result not verified by duplicate sample and considered non-detect. |
| 8/6/2008 | not detected | 3.3 | 10 | not detected (MW-1 duplicate) | |
| 9/11/2008 | not detected | 3.3 | 10 | not detected (MW-1 duplicate) | |
| 3/2/2009 | 4.7 J | 3.3 | 10 | not detected (MW-4) 34 (MW-4 duplicate) | MW-1 result initially estimated below MDL. Duplicate sample results inconsistent. MW-1 considered non-detect. |

| Dissolved Zinc at Upgradient Well MW-1 (concentrations in ug/L) | | | | | |
|---|--------|-----|-----|--|--|
| Sampling Date | Result | MDL | PQL | Duplicate Result | Comment |
| 9/28/2009 | 46 | 2.6 | 10 | 34 (MW-4) 4.4 J (MW-4 duplicate) | MW-1 result uncertain due to inconsistent duplicate sample results. MW-1 result considered an outlier. |
| 12/1/2009 | 36 | 6.8 | 30 | 73 (MW-4) 27 J (MW-4 duplicate) | MW-1 result considered non-detect due to inconsistent duplicate sample results. |
| 3/29/2010 | ? | ? | ? | not detected (MW-4) not detected (MW-4 duplicate) | No analytical data ever submitted for wells MW-1, MW-6 & MW-7 (See Comment 1 above). |
| 9/29/2010 | 4.5 J | 2.6 | 10 | 4.5 J (MW-4) not detected (MW-4 duplicate) | MW-1 result initially estimated below MDL. MW-1 considered non-detect. |

* The outlier analysis in Appendix D in the September 2010 sampling event report identifies all dissolved zinc results for MW-1 as non-detect except the result dated 9/28/2009.

The alternative is to include the result that was determined to be a statistical outlier in the background data set with justification that the outlier is representative of background ground water quality. The statistical outlier should not be included in background unless representativeness is justified in consideration of the following evidences, as appropriate:

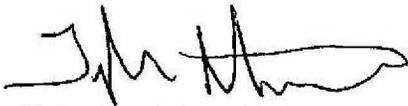
- Consideration of potential close proximity in concentration of the statistical outlier to other detections or to available estimated data that is greater than or equal to the MDL but less than the PQL.
- Supporting evidence found in relevant, professional literature that the statistical outlier concentration is within the normal range of background concentrations expected for the parameter at the facility.
- A comparison of the statistical outlier concentration to background data from other sample locations located up or down gradient and are unaffected by potential sources of contamination that considers the range, standard deviation and spatial variability present in background at the facility and demonstrates that the statistical outlier concentration is within the normal range of background concentrations expected for the parameter at the facility.

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- Use of an appropriate outlier testing procedure not previously identified in the statistical analysis plan demonstrating that the data point previously identified as a statistical outlier in accordance with the statistical analysis plan is not an outlier.

If the owner/operator has any questions, please contact Pete Sokoloski, Division of Drinking and Ground Waters, Northwest District Office, Ohio EPA, at (419) 373-4100. All submittals should be sent to Tyler Madeker, Division of Solid and Infectious Waste Management, Northwest District Office, Ohio EPA, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Sincerely,



Tyler Madeker, R.S.
Ohio Environmental Protection Agency
Division of Solid and Infectious Waste Management

/llr

pc: Michael Lutz, RMT Inc.
Pat Donaldson, Ashland Co. Health Dept.

DSIWM-NWDO_File: Ashland-County, Mansfield Plumbing Products, Groundwater

ec: Pete Sokoloski, DDAGW-NWDO
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