



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

September 23, 2013

**RE: RITTMAN PAPERBOARD
RESIDUAL WASTE LANDFILL
NOTICE OF VIOLATION/NOV
RSWL018763
RESIDUAL SOLID WASTE
LANDFILL
WAYNE COUNTY**

Scott O'Melia, Esq.
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Austell, GA 30106

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6397 Emerald Parkway Suite 300
Dublin, OH 43016

Dear Sirs:

On July 22, 2013, Ohio Environmental Protection Agency (OEPA), Northeast District Office (NEDO), Division of Materials and Waste Management (DMWM), received a document entitled *Statistical Report of Ground Water Quality* and was dated July 2013. The document was submitted by Hull & Associates on behalf of Urban Renewables II, LLC, owner of the Rittman Paperboard Residual Waste Landfill (Rittman Paperboard), and contains resultant analytical laboratory data, statistical analyses, and supporting documentation pertaining to the 2013 First Semiannual Ground Water Monitoring Event.

Rittman Paperboard is required to conduct detection and assessment monitoring in accordance with **OAC Rule 3745-30-08**.

The owner/operator initiated the 2013 First Semiannual Sampling Event on May 7, 2013. The 75-day deadline for information and data obtained subsequent to the sampling event, in accordance with **OAC Rule 3745-30-08(C)(8)**, was July 22, 2013.

Ohio EPA, DMWM forwarded correspondence to Gary McQuate of Caraustar dated February 21, 2013. This correspondence identified several compliance issues, requested additional information to determine compliance, and contained several statements. To date, the owner/operator has not adequately addressed the issues

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contained within the February 21, 2013 correspondence. Therefore, these issues remain outstanding.

Upon review of the July 22, 2013 report, the following violations have been identified:

1. **OAC Rule 3745-30-08(E)(1)**: *“The owner or operator shall, within 180 days of conducting the sampling required under paragraph (D)(12) of this rule, submit to Ohio EPA and implement a specific plan for a ground water quality assessment program to determine the concentration and the rate and extent of migration of waste-derived constituents in the ground water at the landfill facility. This plan shall, at a minimum, include:*
 - (a) *A summary of the hydrogeologic conditions at the landfill facility; and*
 - (b) *A description of the detection monitoring program implemented by the landfill facility, including:*
 - (i) *The number, location, depth, and construction of detection monitoring wells with documentation; and*
 - (ii) *A summary of detection monitoring ground water analytical data; and*
 - (iii) *A summary of statistical analyses applied to the data; and*
 - (c) *A detailed description of the investigatory approach to be followed during the assessment, including but not limited to:*
 - (i) *The proposed number, location, depth, installation method, and construction of assessment monitoring wells; and*
 - (ii) *The proposed method(s) for gathering additional hydrogeologic information; and*
 - (iii) *The planned use of supporting methodology [i.e., soil gas or geophysical survey(s)]; and 3745-30-08 14*
 - (d) *A detailed description of the techniques, procedures, and analytical equipment to be used for ground water sampling during the assessment,*

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including but not limited to the items listed in paragraphs (C)(1)(a) to (C)(1)(g) of this rule.

(e) A detailed description of the data evaluation procedures to be used, including but not limited to:

- (i) Planned use of statistical data evaluation; and*
- (ii) Planned use of computer models; and*
- (iii) Planned use of previously gathered information; and*
- (iv) Criteria which will be utilized to determine if additional assessment activities are warranted; and*

(f) A schedule of implementation.”

The owner/operator has not submitted a *Ground Water Quality Assessment Program Plan* capable of complying with **OAC Rule 3745-30-08(E)(1)**.

Correspondence from Ohio EPA, DMWM sent to Gary McQuate of Rittman Paperboard on May 25, 2011, identified the outstanding compliance issues associated with the June 5, 2006 *Shallow Ground Water Quality Assessment Plan* and April 15, 2011 *Deep Ground Water Quality Assessment Plan*. In addition, correspondence from Ohio EPA, DMWM sent to Gary McQuate of Rittman Paperboard/Caraustar on February 21, 2013, identified the outstanding compliance issues with the OAC Rule 3745-30-08(E)(1).

To date, the owner/operator has not adequately responded to Ohio EPA's May 25, 2011 or February 21, 2013 correspondence.

The owner/operator must submit a *Ground Water Quality Assessment Program Plan* that complies with **OAC Rule 3745-30-08(E)(1)**.

2. **OAC Rule 3745-30-08(D)(10)(b)(ii)**: *“The owner or operator shall, within 15 days of notifying Ohio EPA in accordance with paragraph (D)(8) of this rule, sample the leachate and/or the affected well(s) and analyze for constituents as follows:*

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- (a) *For facilities without leachate collection systems, comply with one of the following:*
- (i) *For class II, III, and IV residual waste facilities, the affected well(s) shall be sampled and analyzed for those parameters listed in appendix II of this rule, unless otherwise approved by the director or his authorized representative."*

The owner/operator has been sampling the Ground Water Monitoring System for **OAC Rule 3745-30-08 Appendix IIIC**, exclusively. The owner/operator should also be conducting semiannual assessment monitoring. This sampling would include **OAC Rule 3745-30-08 Appendix II** parameters determined to be present above background during the April 2006 sampling event.

The owner/operator has not been conducting Semiannual Assessment Sampling as required by **OAC Rule 3745-30-08(E)(4)**.

Upon review of the July 22, 2013 report, it has been determined that more information is needed to determine compliance with the following:

1. **OAC Rule 3745-30-08(B)(1)**: *"The ground water monitoring system shall include a sufficient number of wells, installed at appropriate locations and depths, to yield ground water samples from both the uppermost aquifer system and any significant zones of saturation that exist above the uppermost aquifer system that do the following:*
 - (a) *Represent the quality of ground water that has not been affected by past or present operations at the landfill facility.*
 - (b) *Represent the quality of the ground water passing directly downgradient of the limits of solid waste placement."*

Ten of the ground water monitoring wells were installed in or before 1993; three were installed in 1998; two in 2005, four in 2006. Due to the deterioration of the bentonite grout used to seal the annular space between the casing and the borehole wall via cation exchange in high Iron, Calcium, and/or Magnesium environments, the integrity of annular seal of ground water monitoring wells will eventually fail.

A review of the Time Series Plots for Temperature contained within the *September 2006 Ground Water Sampling Event (Figures 1 and 2)*, illustrates the extreme seasonal variation in ground water temperature of the Deep and Shallow ground water monitoring wells. The wide range in seasonal ground water temperature variations is either indicative of surface water influence on the Deep and Shallow hydrostratigraphic units and/or the annular seals of various ground water monitoring wells have failed due to degradation of the bentonite grout and the ground water monitoring system is no longer capable of determining the quality of ground water as required by OAC Rule 3745-27-10(B)(1).

The owner/operator should submit to the Ohio EPA sufficient data and evidence regarding the integrity of the ground water monitoring wells within the Ground Water Monitoring System to demonstrate compliance with **OAC Rule 3745-30-08(B)(1)**.

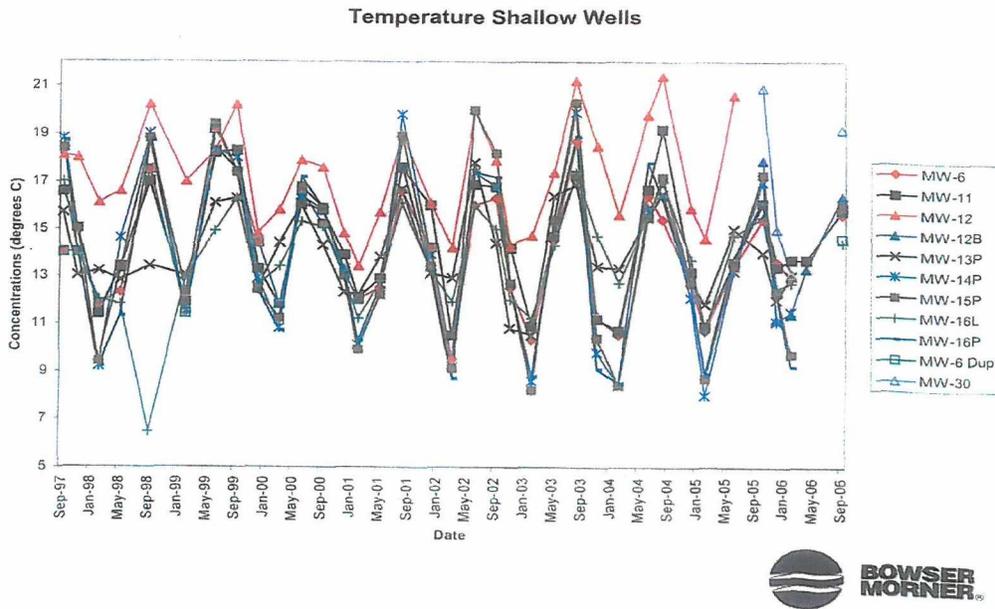


Figure 1 – Temperature Time Series 1997 to 2006

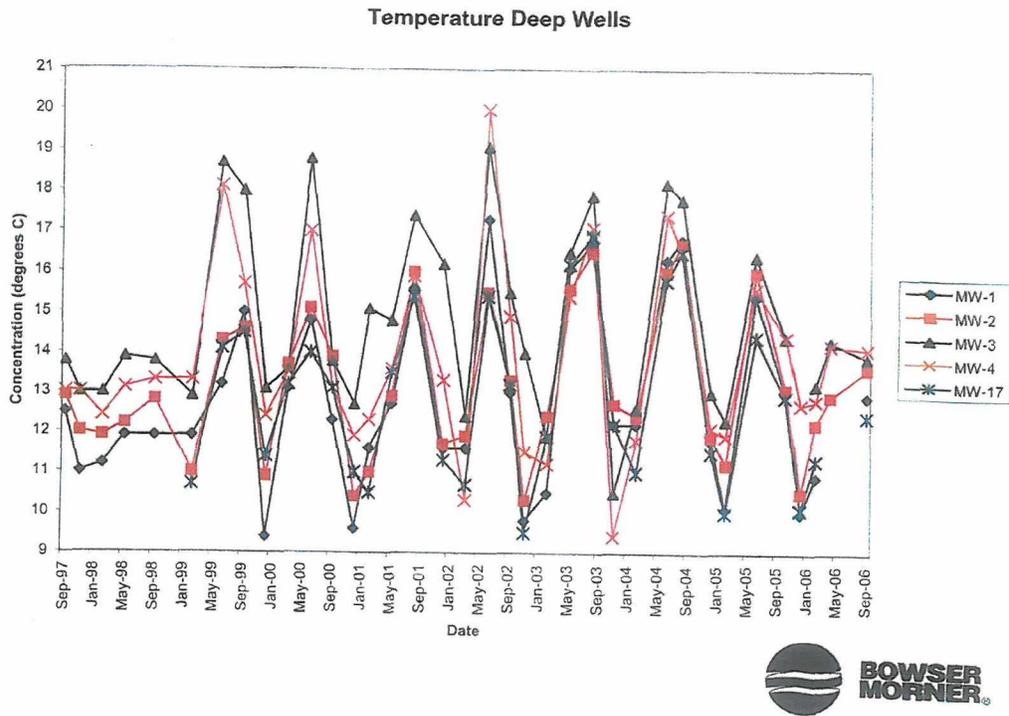


Figure 2 – Temperature Time Series 1997 to 2006

- OAC Rule 3745-30-08(B)(5) and (C)(2)**: *“Ground water elevations shall be measured within a single 24-hour period in all monitoring wells at least semiannually and in each well prior to purging and sampling. The owner or operator shall determine, for the uppermost aquifer system and for all significant zones of saturation monitored, the direction of ground water flow at least semiannually. The ground water elevations and direction(s) of flow shall be shown on a potentiometric map(s) submitted with the sampling data.”*

The interpretation of the ground water elevations represented by potentiometric contours on Figure 1 of the July 22, 2013 submittal, as required by **OAC Rule 3745-30-08(C)(2)**, does not represent natural ground water conditions.

The interpretation of ground water elevations on Figure 1, Potentiometric Surface Map Shallow Saturated Zone, indicates that the River Styx is a losing stream. This is contrary to the historical and natural interpretation of ground water within the Shallow Saturated Zone particularly during the spring sampling

event when ground water is expected to have the highest phreatic surface and discharge to the River Styx.

The owner/operator should apply a fundamental understanding of basic hydrogeological concepts to the measured May 2013 ground water elevations acquired from monitoring wells adjacent to surface water bodies. In doing so, the owner/operator should generate an interpretation that is representative of naturally occurring conditions within the Shallow Saturated Zone. The owner/operator should then submit the revised potentiometric surface map of the shallow saturated zone to the Ohio EPA in order to determine compliance with **OAC Rule 3745-30-08(C)(2)**.

3. **OAC Rule 3745-30-08(C)(5)**: *“The owner or operator shall, within 90 days of obtaining the final sample which completes the initial year of ground water monitoring, specify one of the following statistical methods to be used in evaluating ground water monitoring data. The statistical method chosen shall be conducted separately for each of the parameters required to be statistically evaluated in paragraph (D)(4) of this rule. The statistical method specified shall ensure protection of human health and safety and the environment and shall comply with the performance standards outlined in paragraph (C)(6) of this rule.”*

The statistical analysis applied to the ground water sampling dataset utilizes existing background data that was acquired using bailer purging and sampling techniques. The owner/operator has recently implemented low-flow purge and sampling techniques. In order to utilize existing background ground water quality data that was acquired utilizing bailer purge and sampling techniques, the owner/operator must first demonstrate that the bailer data is from the same statistical population as the low-flow purge and sampling data.

Within the July 6, 2012 submittal of the First 2012 Semiannual Statistical Report of Ground Water Quality, the owner/operator plotted recent resultant analytical laboratory concentrations of ground water parameters acquired utilizing low flow purge and sampling techniques on a time series graphs of historical data acquired utilizing bailer data. The owner/operators conclusion was that there was not apparent discrepancy and therefore the bailer acquired data was appropriate to use as statistical background data.

The procedure used to compare bailer acquired sampling data to low flow sampling data was repeated during the *Second 2012 Semiannual Statistical*

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Report of Ground Water Quality. The narrative within the Second 2012 Semiannual Statistical Report of Ground Water Quality states,

“A review of the data collected during this sampling event using low flow procedures as compared to historical data collected using a bailer, does not indicate any significant differences in the concentrations reported. Therefore, the historical data collected using bailers is appropriate as background data for the data collected using low-flow procedures.”

This previously cited erroneous procedure was again utilized for the *First 2013 Semiannual Statistical Report of Ground Water Quality.* The narrative within the *First 2013 Semiannual Statistical Report of Ground water Quality* states:

“The time series plots show that the data collected using low flow procedures since April 2012 is not significantly different than the data collected using bailers prior to April 2012. As a result, the historical data collected using bailers has not been removed from respective statistical background datasets and was used to complete the interwell statistical evaluations.”

The above described procedure utilized during the First and Second 2012 and the First 2013 Semiannual Sampling Events is inappropriate and inadequate to demonstrate that the low flow acquired data is of a similar population as the bailer acquired data.

In order to utilize bailer acquired sampling data for statistical comparisons, a minimum of four independent sampling events utilizing low flow purge and sampling techniques should be conducted. Upon establishing these four independent sampling events, the owner/operator should then compare the low-flow dataset to the bailer dataset utilizing a t-test, Wilcoxon rank sum test, or other appropriate statistical analysis identified within the *U.S. EPA Unified Guidance* to demonstrate that the data acquired utilizing low flow techniques is from the same population as that acquired from bailer techniques.

If the two differently acquired datasets indicate origination from differing populations, the owner/operator will need to first utilize a statistical analysis based on four background events of low-flow data until eight independent samples utilizing low-flow techniques can be collected; at which time, a more robust statistical analysis may be utilized.

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Upon review of the July 22, 2013 report, Ohio EPA recommends the following:

Recommendation 1

The *2012 Second Semiannual Statistical Report of Ground Water Quality* does not distinguish between Detection and Assessment Monitoring Programs. The document does not indicate which ground water monitoring wells are maintained within the Detection Monitoring Program and which wells are maintained within the Assessment Monitoring Program.

Future *Semiannual Detection/Assessment Ground Water Quality Data* submittals should identify ground water monitoring wells contained within the Ground water Monitoring System and the respective monitoring status of each ground water monitoring well.

Recommendation 2

The Time Series Plots submitted within the *2013 First Semiannual Statistical Report of Ground Water Quality* do not contain the field parameters: Temperature, Specific Conductivity, and/or pH.

Future *Semiannual Detection/Assessment Ground Water Quality Data* submittals should contain Time Series Plots for analytical laboratory parameters and field parameters.

The owner/operator of Rittman Paperboard Residual Waste Landfill needs to immediately take the necessary measures to return to compliance with Ohio's environmental laws. Please respond in writing within 45 days of receipt of this correspondence.

Please be advised that violations cited above will continue until the violations have been properly abated. Failure to comply with Chapter 3734 of the Ohio Revised Code and rules promulgated thereunder may result in a civil penalty of up to \$10,000 per day for each violation. It is imperative that you return to compliance. If circumstances delay the abatement of violations, the owner/operator of Mt. Eaton Landfill is requested to submit written correspondence of the steps that will be taken by date certain to attain compliance.

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Please contact Jeff Rizzo at (330) 963-1115 if you have any questions regarding this review. Otherwise, submit all correspondence to Clarissa Gereby, Division of Materials and Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

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.

Sincerely,



Clarissa Gereby
Environmental Specialist
Division of Materials and Waste Management

CG/cl

cc: Ken Eng, Wayne County General Health District
Jeff Rizzo, DDAGW, NEDO
File: [Singh/LAND/Rittman Paperboard/GRO/85]
DMWM #5180