



State of Ohio Environmental Protection Agency

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January 21, 2005

Dear Landfill Owners and Operators:

Some Ohio solid waste landfill facility (facility) owners and operators (owners) are using the term "reporting limit" (RL) when reporting ground water monitoring results required by Ohio solid waste landfill rules (solid waste rules). The term "RL" is defined in other chapters of the Ohio Administrative Code, but has no meaning in the solid waste rules. As a result, the use of the term "RL" when reporting ground water monitoring data from facilities can cause confusion that may result in violations of the solid waste rules.

This letter provides you with a summary of the issue, a discussion of solid waste rule requirements that apply, and provides guidance for actions that can be taken by you to ensure compliance with the solid waste rules regarding this issue.

If the term "RL" is being used when ground water monitoring results for your solid waste landfill(s) are being reported to Ohio EPA, Division of Solid and Infectious Waste Management (DSIWM), then two changes that can be made to ensure compliance with the solid waste rules discussed in this letter are:

1. To avoid confusion and possible violations of the solid waste rules, owners of facilities regulated under OAC Rules 3745-27, 29, or 30 should not use the term "RL" when submitting ground water monitoring reports to DSIWM because the term has no meaning in the solid waste rules.
2. To meet the solid waste rule requirements for:
 - the accurate representation of ground water quality at a facility,
 - the use of valid statistical analysis, and
 - compliance with the ground water monitoring detection plan,

each owner of a facility regulated under the solid waste rules mentioned above needs to report detections below the practical quantitation limits (PQLs) and use them in accordance with the statistical methodologies included in the facility's ground water detection monitoring plan.

The term "RL" often has no understood relationship to PQLs or method detection limits

Bob Taft, Governor
Jennette Bradley, Lieutenant Governor
Joseph P. Koncelik, Director

(MDLs). This means some owners that use the term "RL" may have incorrectly reported some analytical results, which includes reporting some parameters as non-detect that should have been reported as detections for both ground water background data and monitoring data.

To ensure a clear understanding of the solid waste rule requirements, I am sending out two letters:

The first letter, a copy of which is attached, was sent to the qualified ground water scientists (scientists) associated with facilities to inform them of the technical details and adjustments that should be made if RLs have been used.

This, the second letter, is being sent to notify you that the scientists have been given the technical details and states that all ground water monitoring reports must be compliant with OAC Rule 3745-27-10. Failure to submit compliant reports will constitute a violation of the above referenced rule.

Requirements

OAC Rule 3745-27-10(A)(1) requires the owner of a facility to implement a ground water monitoring program capable of determining the impact of the facility on the quality of ground water occurring within the uppermost aquifer system and all significant zones of saturation above the uppermost aquifer system underlying the facility.

OAC Rule 3745-27-10(C)(1) requires, in part, that the ground water monitoring program include consistent sampling and analysis procedures and statistical methods that are protective of human health and the environment.

OAC Rule 3745-27-10(C)(1) also requires that sampling and analysis procedures and statistical methods are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and down-gradient wells.

OAC Rule 3745-27-10(C)(1)(a) states in part that [the following shall be included in the ground water detection monitoring plan] a written sampling and analysis plan, which documents the sampling and analysis procedures that shall be utilized in the ground water monitoring program. The owner is required to use the procedures documented within the sampling and analysis plan.

OAC Rule 3745-27-10(C)(6) states in part that the statistical method specified [in the ground water detection monitoring plan] shall ensure protection of human health and the environment and shall comply with the performance standards outlined in paragraph (C)(7) of this rule.

OAC Rule 3745-27-10(C)(7) lists eight performance standards used to demonstrate the

statistical methods are valid and accurate.

OAC Rule 3745-27-10(C)(7)(e) requires that any PQL used in the statistical method shall be the lowest concentration level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

OAC Rule 3745-27-10(C)(10)(d) requires that ground water sampling results be placed in data summary table(s) and included in the submission of the results.

OAC Rule 3745-27-10(C)(10)(g) requires that a description of the analysis methods used, including method detection limits and practical quantitation limits for the constituents analyzed, be submitted with ground water monitoring sampling results.

Scenarios encountered when owners used RLs.

A discussion of six scenarios reflecting the possible combinations of the concentration (#), MDL, PQL and RL is included in the attached letter. If any of the first five scenarios are used by an owner then compliance with the statistical requirements of OAC Rule 3745-27-10(C)(6) and the reporting requirements of OAC Rule 3745-27-10(C)(10) has not occurred and will result in violations of these rules.

Response required from owners and operators.

DSIWM recommends that each owner evaluate the historical use of RLs and correct the background data set, as needed, to meet the requirements of the solid waste rules. Each owner may also need to make changes to the ground water monitoring plan for the facility. These changes are self-implementing under the solid waste rules and need to be submitted to DSIWM in compliance with the applicable solid waste rules. Facilities regulated by OAC Rule 3745-27 need to further submit the revised plan to the operating record in accordance with OAC Rule 3745-27-09.

There are numerous technically valid options for adjusting ground water sampling data sets and statistical analyses so they are not based on RLs, but rather are based on MDLs and PQLs as required by the solid waste rules. Of the numerous options, several have been proposed by the regulated community and have been evaluated by DSIWM. The options that were evaluated by DSIWM are discussed in detail in the attached letter. Owners are free to use any of the evaluated options or propose different options for adjusting sampling data sets to eliminate the use of RLs and come into compliance with rule requirements.

Please be aware, that although some of the options may be technically valid, use of them may

create a period of time when the ground water data reports submitted to DSIWM are not compliant with the solid waste rules. If the owner or operator chooses one of those options, violations of the solid waste rules will occur until the process included in the option is completed and ground water monitoring reports are submitted that comply with all solid waste rule requirements.

If the owner or operator fails to submit a ground water monitoring report or submits a report that fails to comply with all the requirements of OAC Rule 3745-27-10 for ground water monitoring reports, then one or more violations of the solid waste rules will have occurred. If an incomplete report will be submitted, DSIWM recommends that the ground water monitoring report include information that describes the reason the report is incomplete, activities that the owner will undertake to complete the report, and a schedule detailing the completion date.

DSIWM expects that, except in the case of very unusual circumstances, the adjustments needed to comply with the solid waste rules, including, but not limited to the re-establishment of background data, will be completed by the submission of the results from the next semi-annual ground water sampling event and will not take any longer than to the time of the following semi-annual ground water sampling event. In any case, the owner's failure to submit a report, submission of an incomplete report, or submission of an incorrect report will constitute a violation of the applicable solid waste rules.

Ongoing or unresolved violations of Ohio's regulations or laws may result in a recommendation to the director of Ohio EPA to escalate enforcement action to resolve those violations and obtain compliance from the owner of a facility.

If you have any questions about this letter or how to comply with the requirements of OAC Rule 3745-27-10, OAC Rule 3745-29-10, or OAC Rule 3745-30-08 described in this letter, please contact the appropriate Ohio EPA district office DSIWM inspector.

Central District Office	614-728-3778
Northeast District Office	330-963-1200
Northwest District Office	419-352-8461
Southeast District Office	740-385-8501
Southwest District Office	937-285-6357

Sincerely,

Dan Harris, Chief
Division of Solid and Infectious Waste Management

Attachment: Letter Dated December 28, 2004 to Consultants