

**3745-400-20 Leachate sampling and analysis and additional requirements to monitor ground water for leachate parameters.**

(A) Leachate sampling and analysis. Throughout the operation, closure, and post-closure care, the owner or operator shall do the following:

(1) Sample and test leachate in accordance with the following unless the facility was licensed and operating on December 22, 2005, and was not required to have a leachate monitoring system on that date. For the purposes of this rule, a "leachate monitoring system" is any leachate collection system that includes sump risers or other access that can be used for collecting samples of leachate.

(a) Sampling frequency.

(i) The owner or operator shall sample leachate at the facility at least annually.

(ii) If the owner or operator recirculates leachate after January 1, 2013, the owner or operator shall sample leachate at the facility at least quarterly.

(b) Sampling locations.

(i) At least annually the owner or operator shall obtain at least one representative leachate sample from a minimum of one sump collecting leachate from areas of the facility containing disposed material. Within every five year period, the owner or operator shall obtain at least one representative leachate sample from each sump collecting leachate from areas of the facility containing disposed material.

(ii) At least quarterly the owner or operator that has recirculated leachate through a facility after January 1, 2013 shall obtain at least one representative leachate sample from each sump capable of collecting leachate from such areas of the facility receiving the recirculated leachate.

[Comment: The director or health commissioner of the licensing authority may utilize authority under section 3714.04 of the Revised Code to specify different sampling locations and frequencies than required by this rule as deemed appropriate.]

(c) Field analysis. During each leachate sampling event, the owner or operator shall measure the pH, specific conductance, temperature, and turbidity for each sump from which a sample is taken.

(d) Laboratory analysis.

(i) The owner or operator shall analyze each leachate sample for the parameters listed in rule 3745-400-21 of the Administrative Code.

(ii) The practical quantitation limit (PQL) used for laboratory analysis shall be the following:

(a) The lowest concentration level that can be reliably achieved during routine laboratory operating conditions that are reasonably available for the analytical method chosen by the owner or operator, unless paragraph (A)(1)(d)(iii) of this rule applies.

(b) Lower than the primary drinking water standard for the parameter included in Chapter 3745-81 of the Administrative Code, if one exists, and the secondary drinking water

standard for the parameter included in Chapter 3745-82 of the Administrative Code, if one exists, unless paragraph (A)(1)(d)(iii) of this rule applies.

(iii) If the PQL does not comply with paragraph (A)(1)(d)(ii) of this rule, the owner or operator shall do one of the following:

(a) Choose alternative sampling or analytical procedures or choose an alternative analytical method that will result in a PQL that complies with paragraph (A)(1)(d)(ii) of this rule and reanalyze the sample or resample.

(b) Identify and report interferences that prevent the use of a PQL meeting the requirements of paragraph (A)(1)(d)(ii) of this rule and provide a written justification in the leachate report why the use of another procedure or method in accordance with paragraph (A)(1)(d)(iii)(a) of this rule is impractical.

(c) Conclude that the parameter has been detected in leachate for the purpose of conducting ground water detection monitoring in accordance with paragraph (B) of this rule.

(e) Submitting the sampling and analysis results. The owner or operator shall submit to the director and the health commissioner of the licensing authority the following information not later than seventy-five days after each leachate sampling event:

(i) The results of the field analysis required by paragraph (A)(1)(c) of this rule.

(ii) The results of the laboratory analysis of the parameters listed in rule 3745-400-21 of the Administrative Code in the same order as listed in rule 3745-400-21 of the Administrative Code.

(iii) Identification of the leachate parameters required by paragraph (B) of this rule to be monitored in ground water.

(iv) Quality control data used by the laboratory to determine whether the analysis results are accurate.

(v) The method detection limits, PQLs, and analysis methods used.

(vi) Forms in the leachate sampling and analysis plan that were completed during leachate sampling and analysis.

(2) Develop and comply with a leachate sampling and analysis plan that contains the following:

(a) A description of the equipment, procedures, and techniques to be used to sample and analyze leachate in accordance with this rule. Sample collection, preservation, and handling methods described in the plan shall provide for collection of representative samples of leachate.

[Comment: The owner or operator is not required to include references to specific laboratory analysis methods, specific method detection limits, or specific practical quantitation limits in the leachate sampling and analysis plan.]

(b) Blank forms to be used to record the information obtained during leachate sampling and analysis including at a minimum the following types of forms:

(i) Forms for recording field analysis results and conditions encountered at the facility during a

sampling event.

(ii) Forms for recording the chain of custody of leachate samples.

(B) Additional requirements to monitor ground water for leachate parameters.

- (1) The owner or operator of a facility with a ground water monitoring system and a leachate monitoring system that can be used for conducting the leachate sampling required by paragraph (A) of this rule shall monitor ground water for parameters that have been detected in the facility's leachate.
- (2) If Ohio EPA or the licensing authority has detected a parameter listed in rule 3745-400-21 of the Administrative Code through conducting sampling in accordance with paragraph (A) of this rule with the exclusion of paragraph (A)(1)(d)(iii)(c), Ohio EPA or the licensing authority may require that the owner or operator add a parameter listed in rule 3745-400-21 of the Administrative Code that is detected by the Ohio EPA or the licensing authority to the ground water monitoring parameter list.
- (3) The owner or operator of a facility that has a ground water monitoring system and does not have a leachate monitoring system that can be used for conducting the leachate sampling required by paragraph (A) of this rule shall monitor ground water for the parameters listed in rule 3745-400-21 of the Administrative Code.
- (4) The owner or operator shall monitor ground water for the additional parameters required by this rule in accordance with rule 3745-400-10 of the Administrative Code.

[Comment: The director or the health commissioner of the licensing authority may utilize authority under section 3714.04 of the Revised Code should the addition of parameters required by this paragraph no longer be determined appropriate.]

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Certification

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Date

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