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3745-506-100

Ground water monitoring system.

(A) Except as provided in paragraph (D) of this rule, the ground water monitoring system shall consist of a sufficient number of ground water monitoring wells installed at appropriate locations and depths to yield ground water samples from both the uppermost aquifer system and all significant zones of saturation that exist above the uppermost aquifer system. Samples collected from the ground water monitoring system installed in accordance with this rule shall meet the following criteria:

- (1) Represent the quality of the background ground water that has not been affected by past or present waste or C&DD disposal operations at the facility.
- (2) Represent the quality of the ground water passing directly downgradient of and as close as practical to the potential sources of contamination.

(B) Determining the number of wells, well spacing, and well depth.

The number, spacing, and depth of ground water monitoring wells shall be based on the limits of potential sources of contamination and site-specific hydrogeologic information including but not limited to lithology, areal extent of geologic units, ground water quality, ground water elevations, yield data, and slug test data.

(C) Surface water monitoring.

- (1) The director may require or authorize an owner or operator to conduct surface water monitoring, including but not limited to the monitoring of seeps, springs, or streams, as part of the ground water monitoring system in areas where the installation of a monitoring well is not practical.
- (2) An owner or operator may submit to the director a written request to conduct surface water monitoring as part of the ground water monitoring system.
- (3) The request shall include at a minimum the following:
 - (a) Sampling and analysis procedures.
 - (b) A list of parameters to be sampled.
 - (c) Procedures for analyzing field and laboratory results.
 - (d) Proposed surface water sampling location, including a map depicting the proposed surface water sampling location in relation to the potential sources of contamination and any ground water monitoring wells installed in the same geologic formation or unit.

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(e) A demonstration showing that surface water samples will be representative of ground water quality passing directly downgradient of the limits of potential sources of contamination.

(f) Any other information requested by Ohio EPA.

(4) The director may decline to act on such a request.

(5) The director may approve the request if the director determines that the surface water samples will be representative of ground water quality passing directly downgradient of the limits of potential sources of contamination.

(D) Where the uppermost aquifer system exists more than one hundred fifty feet beneath the basal elevations of the disposal limits at the facility, the ground water monitoring system is not required to have ground water monitoring wells screened within the uppermost aquifer system. The ground water monitoring system instead shall consist of a sufficient number of ground water monitoring wells installed at appropriate locations and depths to yield ground water samples from an adequate number of significant zones of saturation to ensure the following:

(1) Detection of a release.

(2) That the samples collected conform to paragraph (A) of this rule.

(E) Each ground water monitoring well shall meet the following criteria:

(1) Be designed, installed, developed, and maintained in a manner that allows the collection of ground water samples that are representative of ground water quality in the geologic unit being monitored.

(2) A ground water monitoring well shall be cased in a manner that maintains the integrity of the monitoring well borehole.

(3) The annular space above the sampling depth shall be sealed to prevent migration of fluids along the annular space.

(4) The well casing shall be screened or perforated, and surrounded by sand or gravel in such a way that allows for the following:

(a) Minimization of the passage of formation materials into the well.

(b) Maximization of ground water flow into the well.

(c) Monitoring of discrete portions of the uppermost aquifer system or significant zones of saturation above the uppermost aquifer system.

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- (5) A ground water monitoring well constructed or used only for the purposes of this chapter is not required to comply with Chapter 3745-9 of the Administrative Code (water well standards) with the exception of the well sealing requirements in rules 3745-9-03 and 3745-9-10 of the Administrative Code.
- (6) Each ground water monitoring well shall have a fixed, marked, and surveyed reference point established by a professional surveyor. The datum used for surveying the well reference point shall be the same datum used to survey the facility.