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3745-506-400

Ground water detection program.

(A) An owner or operator shall conduct a ground water detection program capable of detecting a release to the following:

- (1) Ground water in all significant zones of saturation above the uppermost aquifer system.
- (2) Ground water in the uppermost aquifer system unless paragraph (D) of rule 3745-506-100 of the Administrative Code applies to the facility.

(B) Ground water detection monitoring plan.

The ground water detection program conducted by an owner or operator shall be documented in a ground water detection monitoring plan. The ground water detection monitoring plan shall be submitted to Ohio EPA and the approved board of health not later than ninety days prior to commencing sampling in accordance with this chapter. The ground water detection monitoring plan shall include the following:

- (1) A description and documentation of a ground water monitoring system that conforms to rule 3745-506-100 of the Administrative Code. The owner or operator shall document the design, installation, development, maintenance, and sealing of each ground water monitoring well and piezometer. At a minimum, the documentation shall include completed boring logs, well construction diagrams, and completed well maintenance forms developed in accordance with rule 3745-506-130 of the Administrative Code.
- (2) A ground water sampling and analysis plan that conforms to rule 3745-506-200 of the Administrative Code.
- (3) Provisions for establishing background ground water quality in accordance with rule 3745-506-120 of the Administrative Code and paragraph (C) of this rule.
- (4) A statistical analysis plan that conforms to rule 3745-506-300 of the Administrative Code, which shall be incorporated into the ground water detection monitoring plan and submitted to Ohio EPA and the approved board of health not later than thirty days prior to submitting the first set of ground water analytical data analyzed using the statistical analysis method.
- (5) Detection monitoring procedures including a semiannual and annual monitoring schedule and the parameters to be analyzed in ground water samples. These procedures shall conform to the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code.

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(C) Establishing background data.

An owner or operator of a facility shall establish background data in accordance with the requirements of this chapter and in accordance with the following:

- (1) The background data set shall consist of a minimum of eight independent samples from each ground water detection monitoring well for the background ground water quality parameters required by the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code. The date that eight independent samples are achieved through the utilization of existing data in accordance with paragraph (C)(2) of this rule or new sampling in accordance with paragraph (C)(3) of this rule is the date that background is established.
- (2) If a ground water monitoring system exists, background data may be established using existing data in either of the following circumstances:
 - (a) The information for each sample required by rules 3745-506-140 and 3745-506-200 of the Administrative Code is available. The owner or operator shall submit the information required by rules 3745-506-140 and 3745-506-200 of the Administrative Code for each sample to be included in the background data to the Ohio EPA and the approved board of health not later than ninety days after the date the facility is required to comply with this chapter.
 - (b) The information for each sample does not meet the requirements of rules 3745-506-140 and 3745-506-200 of the Administrative Code, but the existing data was previously accepted by Ohio EPA as part of a regulatory requirement. The owner or operator shall submit a description of the reports that the existing data was contained within for each sample to be included in the background data to the Ohio EPA and the approved board of health not later than ninety days after the date the facility is required to comply with this chapter.
- (3) If a facility does not yet have eight independent samples for each detection monitoring well for the background ground water quality parameters required by the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code, then the owner or operator shall comply with the following:
 - (a) Not later than one hundred eighty days after the date required by the applicable program chapter to commence sampling, a minimum of four new, independent samples shall be collected from each ground water monitoring well that is part of the ground water detection program and analyzed for the background ground water quality parameters required by the ground water detection program monitoring schedule applicable to the

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facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code. These analytical results shall be used to establish the background data for the ground water monitoring wells that are part of the ground water detection program.

(b) Not later than three hundred sixty days after the date required by the applicable program chapter to commence sampling, additional independent samples shall be collected from each ground water monitoring well that is part of the ground water detection program and analyzed for the background ground water quality parameters required by the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code such that there are a minimum of eight independent samples per monitoring well for each parameter. These analytical results shall be used to establish the background data for the ground water monitoring wells that are part of the ground water detection program.

(D) Semiannual and annual ground water monitoring.

Not later than one hundred eighty days after the date background data are to be established in accordance with this rule, an owner or operator shall commence monitoring in accordance with the ground water detection monitoring plan and the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code.

(E) Statistical analysis.

The ground water data generated from semiannual and annual monitoring shall be statistically compared to background data when required by the ground water detection program monitoring schedule applicable to the facility contained in rules 3745-506-700 to 3745-506-999 of the Administrative Code.

(F) An owner or operator shall comply with rule 3745-506-410 of the Administrative Code regarding statistically significant changes between background data and analytical results.

(G) An owner or operator may choose to comply with paragraph (A) of rule 3745-506-420 of the Administrative Code and begin a ground water assessment program without a determination of a statistically significant change between background data and analytical results.