

3745-67-78 Unsaturated zone (zone of aeration) monitoring.

- (A) The owner or operator shall have in writing, and shall implement, an unsaturated zone monitoring plan which is designed to:
- (1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and
 - (2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring shall be conducted before or in conjunction with the monitoring required under paragraph (A)(1) of this rule.
- (B) The unsaturated zone monitoring plan shall include, at a minimum:
- (1) Soil monitoring using soil cores, and
 - (2) Soil-pore water monitoring using devices such as lysimeters.
- (C) To comply with paragraph (A)(1) of this rule, the owner or operator shall demonstrate in his unsaturated zone monitoring plan that:
- (1) The depth at which soil and soil pore water samples are to be taken is below the depth to which the waste is incorporated into the soil:
 - (2) The number of soil and soil-pore water samples to be taken is based on the variability of:
 - (a) The hazardous waste constituents, as identified in paragraphs (A) and (B) of rule 3745-67-73 of the Administrative Code, in the waste and in the soil; and
 - (b) The soil type(s); and
 - (3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.
- (D) The owner or operator shall keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.
- (E) The owner or operator shall analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under paragraphs (A) and (B) of rule 3745-67-73 of the Administrative Code.

[Comment: as required by rule 3745-67-73 of the Administrative Code, all data and information developed by the owner or operator under this rule shall be placed in the operating record of the facility.]

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