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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