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3745-510-340 Geotechnical investigation procedures, equipment, and methodologies.

The report on the geotechnical investigation identified in rule 3745-510-100 of the Administrative Code shall include labeled and tabbed pages for the section titled "Geotechnical Investigation Procedures, Equipment, and Methodologies," and shall include the following:

(A) A description and an explanation of why a particular subsurface investigatory method and sampling method were chosen to characterize the geotechnical properties for the purpose of preparing the sections specified in rules 3745-510-331 to 3745-510-335 of the Administrative Code, including the following:

(1) Appropriate subsurface investigatory methods used to collect data including but not limited to tensiometers, geophysical surveys, and borings (such as piezometers, dutch cone penetrometers, and test pits).

(2) Depth of site characterization. The applicant, owner, or operator may limit the maximum depth of the geotechnical site investigation to unconsolidated stratigraphic units that are within fifty feet of the basal elevations of the deepest excavation at the facility if there is no information that indicates that an unconsolidated stratigraphic unit may exist deeper that could be a critical layer or compressible layer.

(3) Number of borings. The applicant, owner, or operator shall install exploratory borings for the purpose of continuous logging of the subsurface characteristics and properties at a frequency of one boring for every four acres within the facility boundary. Spacing shall be on a uniform grid system. Borings may be moved laterally from the grid to accommodate site topography and features. Additional borings shall be installed where engineered components will be placed above a critical layer or compressible layer or in an unstable area.

(B) The applicant, owner, or operator shall collect, analyze, and log in accordance with paragraph (D) of rule 3745-510-350 of the Administrative Code, the following number of undisturbed samples:

(1) The greater of the following:

(a) Ten per cent of the borings that extend to or through each unconsolidated stratigraphic unit that is a critical layer.

(b) Three samples from each unconsolidated stratigraphic unit that is a critical layer.

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(2) One sample from each unconsolidated stratigraphic unit that is a compressible layer

(C) The procedures used to protect samples from damage and from adverse effects during transportation of the samples to the place of testing.

(D) The analytical procedures and methodology used to characterize the unconsolidated and consolidated materials obtained from borings including but not limited to test pits, drilling, and other investigation methods.

(E) The methodology, equipment, and procedures used to define the critical layers, compressible layers, highest temporal phreatic surfaces, and highest temporal piezometric surfaces.