

***** DRAFT – NOT FOR FILING *****

3745-511-30 **Bearing capacity analysis and reporting.**

- (A) A bearing capacity analysis shall be conducted for all vertical sump risers located on the liner system and shall demonstrate that the design of the liner system and the vertical sump risers provides a factor of safety of at least 3.0 against bearing capacity failure caused by the vertical sump risers.
- (B) The geotechnical and stability analyses report identified in rule 3745-511-10 of the Administrative Code shall contain a section titled "Bearing Capacity Analysis of Vertical Sump Risers" which shall include the following information:
- (1) The scope, extent, and findings of the site investigation bearing on the bearing capacity analysis.
 - (2) A description of the rationale used for the selection of the analysis input parameters.
 - (3) A description of the method used to calculate bearing capacity.
 - (4) A description of the assessed failure modes and conditions.
 - (5) A drawing of each critical cross section that fully depicts the analysis input model including the following:
 - (a) The material boundaries.
 - (b) The temporal high piezometric surface and temporal high phreatic surface.
 - (c) The material types.
 - (d) The in situ unit weights and saturated unit weights.
 - (6) A cross section of each vertical sump riser showing the liner system, subsurface, and failure surfaces.
 - (7) All inputs, outputs, and calculations used for the bearing capacity analysis. If a computer was used for any calculations, the computer inputs and outputs shall also be included.