

*** DRAFT – NOT FOR FILING ***

3745-520-230

Liner system design.

(A) The liner system design required by this rule applies to those areas of the C&DD facility that on the date that the permit to install is issued do not contain material that has been disposed in accordance with authorizing documents issued pursuant to Chapter 3714. of the Revised Code and rules adopted thereunder.

(B) Determination of engineered components of a liner system.

(1) Notwithstanding the criteria in paragraphs (B)(2) to (B)(5) of this rule, the engineered components shall conform to paragraph (C)(1) of this rule if any of the following criteria are met:

(a) Any portion of the proposed disposal limits of the area to be lined pursuant to this rule is in a drinking water source protection area for a public water system using ground water, including the area surrounding a public water supply well that will provide water from an aquifer to the well as delineated or endorsed by Ohio EPA under Ohio's wellhead protection and source water assessment and protection programs.

(b) Any portion of the proposed disposal limits of the area to be lined pursuant to this rule is above an unconsolidated aquifer system capable of sustaining a yield of at least one hundred gallons per minute for a twenty-four-hour period.

(c) For a C&DD facility subject to paragraph (B)(1) of rule 3745-520-100 of the Administrative Code, the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined is less than five feet.

(2) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least five feet and less than fifteen feet, the engineered components shall conform to paragraph (C)(1) of this rule.

(3) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least fifteen feet and less than twenty five feet, the engineered components shall conform to either paragraph (C)(1) or (C)(2) of this rule.

(4) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least twenty five feet and less than one hundred fifty feet, the engineered components shall conform to paragraph (C)(1), (C)(2), or (C)(3) of this rule.

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(5) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system to be lined pursuant to this rule is at least one hundred fifty feet, the engineered components shall conform to paragraph (C)(1), (C)(2), (C)(3), or (C)(4) of this rule.

(C) A liner system shall be designed to conform to one of the following as required by paragraph (B) of this rule:

(1) Be comprised of a recompacted soil liner with a thickness not less than 3.0 feet directly beneath a flexible membrane liner.

(2) Be comprised of a recompacted soil liner with a thickness not less than 1.5 feet directly beneath a flexible membrane liner.

(3) Be comprised of a recompacted soil liner with a thickness not less than 3.0 feet.

(4) Be comprised of either of the following:

(a) A recompacted soil liner with a thickness not less than 1.5 feet.

(b) A flexible membrane liner.

(D) Different designs identified in paragraph (C) shall not be combined in a single permit to install application.

(E) The design of the engineered components of the liner system shall conform to rule 3745-511-310 of the Administrative Code.

(F) For a lateral expansion where a flexible membrane liner is not an engineered component of liner systems in both the existing area and proposed area, the liner system in the tie-in area shall be designed to prevent leachate from seeping under the flexible membrane liner.

(G) The liner system shall have a slope that conforms to the following:

(1) Have a minimum slope of 2.0 per cent in all areas accounting for settlement in accordance with rule 3745-511-60 of the Administrative Code, except along flow lines augmented by leachate collection pipes.

(2) Not exceed compaction equipment limitations.

(3) Satisfies the factors of safety for slope stability specified in rules 3745-511-40 and 3745-511-50 of the Administrative Code.