

***** DRAFT – NOT FOR FILING *****

3745-512-20

Recompacted soil liner material evaluation and reporting.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

(A) The owner or operator shall perform pre-construction testing in accordance with this rule prior to construction of the recompacted soil liner.

(B) The owner or operator shall use only soils that meet the range of soil properties established in the recompacted soil liner test pad certification report required by rule 3745-512-21 of the Administrative Code. The soil properties shall meet the following criteria:

(1) One hundred per cent of the particles shall have a maximum dimension not greater than two inches.

(2) Not more than ten per cent of the particles by weight shall have a dimension greater than 0.75 inches.

(3) Have plasticity properties lying above the A-line as described in ASTM D2487 (USCS).

(4) The recompacted laboratory hydraulic conductivity results, as evaluated under paragraph (C)(4) of this rule, do not exceed 1.0 times ten to the negative seven centimeters per second.

(C) The evaluation shall be signed and sealed by a professional engineer. The evaluation shall determine whether the soil conforms to the standards in paragraph (B) of this rule with a delineation of acceptable and unacceptable sources. The evaluation shall contain the results of the following pre-construction testing performed on representative samples of the borrow soils:

(1) The maximum dry density and optimum moisture content according to ASTM D698 (standard proctor) or ASTM D1557 (modified proctor) at a frequency of not less than once for every two thousand cubic yards of borrow soil.

(2) The grain size distribution according to ASTM D422 (sieve and hydrometer) at a frequency of not less than once for every one thousand five hundred cubic yards of borrow soil.

(3) The atterberg limits according to ASTM D4318 at a frequency of not less than once for every one thousand five hundred cubic yards of borrow soil.

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- (4) The recomacted laboratory hydraulic conductivity according to ASTM D5084 (falling head permeameter) at a frequency of not less than once for every ten thousand cubic yards of borrow soil. Sample preparation and compaction shall model lift placement.