

Kansas Department of Health and Environment
Bureau of Waste Management Policy 2014-P3
Final Cover at Waste Tire Monofills

Purpose

This policy clarifies the soil thickness and compaction requirements for final cover at waste tire monofills.

Background

The Kansas Department of Health and Environment (KDHE) requires the application of final cover at waste tire monofills to provide stability, safety, and proper storm water management, and prevent erosion. Typical requirements for landfill closure have been to complete soil grading, compaction, and contouring of the subgrade to final elevations prior to placement of an 18-inch layer of low permeability soil, followed by a 12-inch layer of soil capable of supporting vegetation. Low permeability soil is soil that has been compacted so that the permeability is 1×10^{-5} centimeters per second or less. Because processed waste tires are composed of flexible materials and are unpredictable in how they compact, it is impractical to require such a low permeability soil in the final cover system.

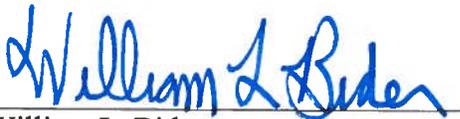
Action

The owner or operator of each existing or new waste tire monofill is required to apply a minimum depth of 24 inches of final cover soil over the final lift of processed waste tires. KDHE suggests the final cover be constructed in 6- to 9-inch lifts.

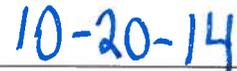
The lower 12 to 18 inches of final cover must meet, in lieu of the low permeability soil requirement, the lesser standard for Type B compaction (see Kansas Department of Transportation, Standard Specifications for State Road and Bridge Construction, Section 205 – Excavation and Embankment for Highways, 205.4 g. Compaction Requirements, Table 205-1, 2007).

The engineer responsible for construction quality assurance will visually determine acceptable compaction of the final cover. If the engineer is unable to visually determine whether Type B compaction is obtained for the applicable soil type, the engineer may conduct density tests on the compacted soil. If tested, the compacted soil density must be at least 90% of the standard density.

The top 6 to 12 inches of the 24-inch total final cover should be placed with limited compaction so it can support vegetation.



William L. Bider
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Date