

New Policy Issued

Ohio Environmental Protection Agency Division of Hazardous Waste Management Final Covers for Hazardous Waste Surface Impoundments, Waste Piles and Landfills

July 3, 2000

The Division of Hazardous Waste Management (DHWM) is announcing the availability of the newly developed policy entitled "Final Covers for Hazardous Waste Surface Impoundments, Waste Piles and Landfills." This policy was developed in response to an identified need for a review tool for DHWM staff to promote consistency in the review of closure plans. The policy includes a narrative which provides background information, explains regulatory requirements and includes a list of examples of approved alternative designs. **The policy can be downloaded [here](#)**

As part of DHWM's continuing effort to actively inform and involve stakeholders of our activities, DHWM issued this policy in draft form for the purpose of soliciting stakeholder comment. The comment period began on March 1, 2000 and closed on April 17, 2000.

DHWM reviewed all comments it received, revised the text of the policy as appropriate and prepared a responsiveness summary. Which follows here:

Responsiveness Summary

Comment:

"The title of this document implies that it covers landfills regulated by Ohio EPA. For solid waste this includes MSW landfills, residual waste landfills, industrial landfills, tire landfills, and C&DD landfills. In addition, some of the requirements contained herein are less stringent than the regulations for some solid waste landfills and may confuse some readers. I have noted these instances."

Response:

The title of the policy has been amended and the words "Hazardous Waste" inserted to make clear that the Final Covers policy applies only to hazardous waste surface impoundments, waste piles and landfills.

Comment:

"In example #2 for the Cowan Lake site, the material of asphalt is noted as having a 1 x 10⁻⁷ cm/sec permeability. While this may be so for a small sample of asphalt, large areas will have a much lower (sic) permeability from cracking that routinely occurs due to freeze/thaw cycles and stresses of vehicular traffic. Researched data sources indicate that as much as 25% of a rain event may infiltrate through such cracks. While an asphalt cover may be appropriate in some instances (e.g., to limit direct exposure or limit, not eliminate, infiltration), added discussion may be needed to clarify the goal of

the cover in this specific instance. The permeability number may be misleading without further clarification."

Response:

The example referred to clearly states that the results of a ground water investigation indicated that the chances of contamination spreading to the relatively deep aquifer were minimal. In addition the text of the example provides that the 4 inch asphalt layer with shallow slopes is the surface layer dictated by the future intended use of this portion of the site; the Type 2 final cover in this example includes as an element a "low-permeability layer" consisting of 60-mil HDPE geomembrane placed under the asphalt but over the contaminated soil. In between the asphalt and the 60 mil liner is an aggregate base protective layer and a drainage layer. Finally, the example includes a statement of applicability of a Type 2 cover which is "to cover an outside area of contamination, where contaminants are less mobile, and the chances of contamination spreading to an aquifer are minimal."

Comment:

"How is it that 4" of asphalt over top of other compacted fill material which itself overlays a 60 ml plastic liner is considered a "low-permeability" cap? "

Response:

The document provides examples of three types of approved final covers which meet the closure performance standards. The terms used in the policy are descriptive of the different types of final covers that have been approved; the terms may lack precision since these terms are nowhere defined in the hazardous waste rules. The terms used in the policy to describe the several types of final covers, however, are consistent with factual settings presented for each of the examples. The factual setting determines the applicability. Type 1 final covers have a synthetic liner over a recompacted clay layer and are used where contamination could reach ground water if contaminated media is subjected to water percolation. A Type 1 final cover is termed an "impermeable final cover." Type 2 final covers are applicable where contaminants are less mobile and the chances of contamination spreading to an aquifer are minimal. Type 2 final covers have a synthetic liner but no recompacted clay layer and are termed "low permeability final covers."

Comment:

"This guidance should allow the use of alternative covers in all situations where they are technically justified and meet the regulatory requirements, not just where it is impractical or impossible to use the Ohio EPA recommended approach."

Response:

The Final Covers policy states that "the rules allow the owner or operator to propose a design or set of practices to achieve the regulatory objective. Using the technical performance standards as a foundation, Ohio EPA, through issuance of a closure plan approval (or permit approval), establishes the site-specific closure requirements with which the owner or operator must comply. So the question is not whether alternate

designs for final covers can be proposed but rather what is required in a proposed design to meet the technical performance standards." While the document states a recommended design, this document is also defined as a "policy" which serves to clarify rules adopted by Ohio EPA; a policy does not have the force of law and can not establish any new requirements (ORC Section 3745.30). This policy allows the use of alternative covers in all situations where they are technically justified and meet the regulatory requirements.

Comment:

"The technical performance standards should be consistent throughout the guidance document with the performance standard stated on page 5 of the guidance, given the latter is the regulatory requirement."

Response:

See above response.

Comment:

At the bottom of page 9 the guidance states that an entity closing a land based unit must demonstrate that OEPA recommended cap designs are "impossible" or impractical to execute before alternate cap designs will be considered. Given the distinct possibility that alternate cap designs can meet the closure performance standards in many situations, how does an entity prove that OEPA recommendations are "impossible" to meet? It may not be reasonable to require more rigorous cap designs when an alternate can be shown to be technically sound, and capable of meeting prescribed performance standards.

Response:

See above response.

End of Responsiveness Summary

Hard copy versions of the policy, comments and responsiveness summary may be obtained by contacting Angela Scott-Owens at (614) 644-2944.

We value the perspective our stakeholders provided with respect to the Final Covers document and look forward to providing you with opportunities for input on future revised or newly developed guidance and policy.

Sincerely,

Michael A. Savage, Chief

Division of Hazardous Waste Management