

(i) For any existing portion of the impoundment, a liner must be installed in compliance with § 264.221(a); and

(ii) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of this section and that is not being repaired must be closed in accordance with the provisions of § 264.228.

[47 FR 32357, July 26, 1982, as amended at 50 FR 28748, July 15, 1985]

**§ 264.228 Closure and post-closure care.**

(a) At closure, the owner or operator must:

(1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless § 261.3(d) of this chapter applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in §§ 264.117 through 264.120, including maintenance and monitoring throughout the post-

closure care period (specified in the permit under § 264.117). The owner or operator must:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with §§ 264.221(c)(2)(iv) and (3) and 264.226(d), and comply with all other applicable leak detection system requirements of this part;

(3) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of subpart F of this part; and

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(1) If an owner or operator plans to close a surface impoundment in accordance with paragraph (a)(1) of this section, and the impoundment does not comply with the liner requirements of § 264.221(a) and is not exempt from them in accordance with § 264.221(b), then:

(i) The closure plan for the impoundment under § 264.112 must include both a plan for complying with paragraph (a)(1) of this section and a contingent plan for complying with paragraph (a)(2) of this section in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator must prepare a contingent post-closure plan under § 264.118 for complying with paragraph (b) of this section in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under §§ 264.142 and 264.144 for closure and post-closure care of an impoundment subject to this paragraph must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under paragraph (a)(1) of this section.

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