

## CHAPTER 33-20-08.1 SURFACE IMPOUNDMENT PROVISIONS

### Section

33-20-08.1-01 Performance and Design Criteria

33-20-08.1-02 Closure and Postclosure Criteria

#### **33-20-08.1-01. Performance and design criteria.**

In addition to the requirements of section 33-20-04.1-09, the owner or operator of a surface impoundment shall comply with the following:

1. Applicability.
  - a. The design, construction, and operating standards of this section are applicable to surface impoundments that store or treat solid waste, sludges containing free liquids, free liquids containing high concentrations of dissolved solids, or liquids derived from processing or handling solid waste.
  - b. The standards of this section are not applicable to the following units:
    - (1) Surface impoundments which treat wastewater, the discharge of which is subject to federal, state, or local water pollution discharge permits;
    - (2) Surface impoundments which handle agricultural waste generated by farming operations;
    - (3) Lime sludge settling basins;
    - (4) Basins used to collect and store storm water runoff; and
    - (5) Oil and gas exploration and production waste regulated under North Dakota Century Code section 38-08-04.
2. The owner or operator must design, construct, and operate each surface impoundment so as to:
  - a. Comply with the surface water and ground water protection standards of chapter 33-20-13;
  - b. New units must have a compacted soil liner of a minimum four feet [1.22 meters] of  $1 \times 10^{-7}$  centimeters per second or lesser hydraulic conductivity or any combination of soil liner thickness, underlying soil thickness and hydraulic conductivity, or a flexible membrane liner which would control the migration of waste or waste constituents during the active life of the surface impoundment and, for surface impoundments closed with solid waste in place, during the postclosure period;
  - c. Have dikes designed to maintain their structural integrity under conditions of a leaking liner and capable of withstanding erosion; and
  - d. Have the freeboard equal to or greater than two feet [61.0 centimeters] to avoid overtopping from wave action or precipitation.
3. Monitoring and inspection.
  - a. While a surface impoundment is in operation, it must be inspected by the owner or operator monthly and after storms to detect evidence of any of the following:

- (1) Deterioration, malfunctions, or improper operation of control systems;
  - (2) Sudden drops in the level of the impoundment's contents; and
  - (3) Severe erosion, seepage, or other signs of deterioration in dikes or other containment devices.
- b. Prior to placing a surface impoundment into operation or prior to renewed operation after six months or more during which the impoundment was not in service, a professional engineer must certify that the impoundment's dike and liner have structural integrity.
4. Emergency repairs and contingency plans.
- a. When a malfunction occurs in the waste containment system which can cause a release to land or water, a surface impoundment must be removed from service and the owner or operator must take the following actions:
- (1) Immediately shut down the flow of additional waste into the impoundment;
  - (2) Immediately stop the leak and contain the waste which has been released;
  - (3) Take steps to prevent catastrophic failure;
  - (4) If a leak cannot be stopped, empty the impoundment;
  - (5) Clean up all released waste and any contaminated materials; and
  - (6) Notify the department of the problem within twenty-four hours after detecting the problem.
- b. As part of the contingency plan, the owner or operator must specify a procedure for complying with the requirements of subdivision a of this subsection.
- c. No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:
- (1) If the impoundment was removed from service as the result of actual or imminent dike failure, the owner or operator must certify the dike's structural integrity; and
  - (2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, the following actions must be taken:
    - (a) For any existing portion of the impoundment without a liner, a liner must be installed; and
    - (b) For any portion of the impoundment that is lined, the liner must be repaired and the owner or operator must certify that the repaired liner meets the design specification approved in the permit.
- d. A surface impoundment, that has been removed from service in accordance with the requirements of this subsection and that is not repaired within six months, must be closed in accordance with the provisions of sections 33-20-04.1-05 and 33-20-04.1-09.

**History:** Effective December 1, 1992; amended effective October 1, 1994.

**General Authority:** NDCC 23-29-04

**Law Implemented:** NDCC 23-29-04

**33-20-08.1-02. Closure and postclosure criteria.**

In addition to the requirements of section 33-20-04.1-09, at closure, the owner or operator shall complete the following:

1. Remove all standing liquids, waste and waste residues, the liners and leak detection system, and any underlying and surrounding contaminated soil. The site must then be reclaimed by regrading the site, replacing all suitable plant growth material, and properly revegetating the site; and
2. If all impoundment materials are not removed as provided in subsection 1, the owner must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means and then close the impoundment and provide postclosure as provided for an industrial waste landfill under section 33-20-01.1-02.

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