CLOSURE OF WASTE IMPOUNDMENTS

(No.)
Code 360

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

The closure of waste impoundments, that are no longer used for their intended purpose, in an environmentally safe manner.

II. Purpose

This practice may be applied as part of a conservation management system to support one or more of the following purposes.

- To protect the quality of surface water and groundwater resources.
- To eliminate a safety hazard for humans and livestock.
- To safeguard the public health.

III. Conditions Where Practice Applies

This practice applies to agricultural waste impoundments that are no longer needed as a part of a waste management system and are to be permanently closed or converted.

Where these impoundments are to be converted to fresh water storage and the original impoundment was not constructed to NRCS standards, this practice will only apply where an investigation and evaluation shows structural integrity.

IV. Federal, State, and Local Laws

The closure of waste impoundments shall comply with all federal, state, and local laws, rules or regulations. The operator is responsible for securing required permits. This standard does not contain the text of the federal, state, or local laws governing closure of waste impoundments.

V. Criteria

A. Waste impoundment closure will require a site-specific design and inspection during closure. Additional procedures may be required for remediation. A local permit may be required for the closure operation. The minimum procedure for closure shall include:

1. Removal and proper disposal of accumulated wastes in the facility in accordance with NRCS, Field Office Technical Guide (FOTG), Section IV, Standard 590, Nutrient Management.

2. Soil that is mixed with waste shall be removed and uniformly spread on cropland.

3. An additional 6 inches to 24 inches of soil shall be removed from the sides and bottom of the facility. The amount of soil to be removed shall be determined by the color and consistency indicating permeation or saturation of waste in the soil. Removed soil shall be uniformly spread on cropland.

4. Concrete or synthetic liners may be buried in the existing facility if all listed requirements are met.

   a. Liner is broken up or holes are made to allow movement of water through the profile after the facility is closed.

   b. Soil borings are made below the liner to check for soil mixed with waste. If soil mixed with waste is present, the liner must be pulled back to allow for the removal of the soil as stated in 3 above.

   The liner material may then be buried in the closed facility. If the liner is removed from the closed site, it must be properly disposed of according to Wisconsin Department of Natural Resources (WDNR) regulations.

5. The transfer system shall be removed or permanently plugged.

6. The site shall be filled with clean mineral soil meeting the quality of materials contained in Wisconsin Construction Specification 3, Earthfill, and shaped to insure surface drainage away from the site after settlement. Brick, building stone, concrete, reinforced concrete, broken pavement, and unpainted or untreated wood may be used in the fill pursuant to Chapter NR 500.08 (Wisconsin Administrative Code); however, the upper 3 feet of the fill shall be clean mineral soil as defined previously. Backfill height shall exceed the planned finished grade by a minimum of 5 percent to allow for settlement.

7. Concrete floors for above-ground facilities may be left in place if water is not impounded on the floor surface and the conditions listed in paragraph V.A.4.b. are satisfied.

B. **Conversion.** The waste storage impoundment may be converted to other uses if applicable groundwater standards are met. The converted impoundment shall meet the requirements as set forth in the NRCS , FOTG, Section IV, practice standard for the intended purpose.

Safety. Precautions (fencing and warning signs) shall be used to ensure that the pond is not used for incompatible purposes such as swimming and livestock watering until water quality is adequate for these purposes.

C. **Protection.**

1. All disturbed areas not returned to crop production shall be seeded and mulched in accordance with NRCS, FOTG, Section IV, Standard 342, Critical Area Planting, or other suitable measures used to control erosion and restore the esthetic value of the site.

2. Measures shall be taken during construction to minimize site erosion and pollution of downstream water resources. This may include such items as silt fences, hay bale barriers, temporary vegetation, and mulching.

VI. Considerations

Additional recommendations relating to design which may enhance the use of or avoid problems with this practice, but are not required to ensure its basic conservation function, are as follows.

1. Reduce pumping effort to empty waste impoundments where the surface is covered by a dense mat of floating vegetation by first breaking up this surface crust.

2. Minimize the impact of odors associated with emptying and land-applying wastewater and sludge from a waste impoundment by using an incorporation application method at a time when the humidity is low, when winds are calm, and when wind direction is away from populated areas.

VII. Plans and Specifications

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use. A construction plan and inspection plan are required.

VIII. Operation and Maintenance

The proper closure of a waste impoundment should require little or no operation and maintenance; however, if it is converted to another use, such as a fresh water pond, operation and maintenance shall be in accordance with the needs as set forth in the NRCS conservation practice standard for the intended purpose.

IX. References

United States Department of Agriculture, Natural Resources Conservation Service, Agriculture Waste Management Field Handbook, Part 651, 1992.

United States Department of Agriculture, Natural Resources Conservation Service, Wisconsin Field Office Technical Guide, Section IV.

Wisconsin Administrative Code, Chapter NR 500, General Solid Waste Management Requirements.