

Report to  
Legislative Council Rules Clearinghouse  
NR 500-524, Wis. Adm. Code  
Natural Resources Board Order No. WA-11-22

Wisconsin Statutory Authority

Sections 227.11 (2) (a), 289.05 (1) and (3), 289.06 (1), and 289.61, Stats.

Federal Authority

The proposed rule is consistent with and as protective as federal criteria under Subtitle D of the Resource Conservation and Recovery Act (RCRA, 40 CFR Part 258). The department must obtain U.S. Environmental Protection Agency approval of the rule revisions and maintain its authority to regulate solid waste disposal facilities in Wisconsin.

Comparison of Adjacent States

Michigan, Minnesota, Illinois, and Iowa, as well as Wisconsin, all have solid waste management laws and permit programs based on federal law and approved by the U.S. Environmental Protection Agency. Federal solid waste law allows states implementation flexibility, thus creating differences across states. Solid waste programs in these states have different funding mechanisms, different numbers of landfills, different amounts of staff and pay levels, and different regulations. Due to these differences, it is not possible to do a meaningful side-by-side comparison. The landfill permitting and licensing for each state includes a technical decision-making process focusing on the ability of the proposed landfill design to meet all criteria and standards to protect public health and the environment. Each state regulates the construction, operation and closure of facilities and projects that manage, process and dispose of solid waste.

- The rule proposes to codify existing annual report requirements that are currently specified in each landfill's plan of operation. Three states—Illinois, Iowa, and Minnesota—require annual reports be submitted highlighting landfill operations from the previous year.
- The rule proposes notification deadlines for landfills to send certain information to the department, such as notification of a landfill surface fire within one day, notification of a subsurface fire or elevated temperatures within five days of verification, and notification of a leachate seep or leachate spill outside the limits of waste within one day of discovery. Minnesota requires notification of 'emergency situations' such as landfill fires and spills. Michigan requires landfills to develop and maintain an 'Emergency Response and Remedial Action Plan' for situations such as landfill fires or spills.
- The rule proposes changing the minimum inside diameter of all leachate collection or transfer pipes to be 6 inches, rather than the current 6-inch outside diameter requirement. This provides a minimum numerical standard. The four adjacent states require leachate pipes allow for sufficient flow and access for cleaning, but without a specific diameter.
- The proposed rule allows for alternative final cover design proposals for municipal solid waste landfills. The design must meet certain performance-based criteria but is open to new design proposals. All four adjacent states also allow for alternative final cover design proposals.
- The proposed rule codifies current practice that the department may approve delaying final cover placement for up to two years after a municipal solid waste landfill attains either final waste grades or maximum interim waste grades. This allows time for potential settling of the waste and adding new waste to the existing landfill footprint. Michigan allows delaying placement of final cover up to one year.
- The rule proposes allowing a municipal solid waste landfill to have waste placed temporarily up to 10 percent higher than the approved final waste grades, which assumes that settling will occur before final closure and placement of a final cover. This would allow a landfill to accept additional waste and delay the need for an expansion or a new landfill. No information was found

related to this type of allowance in adjacent states.

- The proposed rule allows a specific alternative landfill liner design than what is currently required in code for composite lined landfills (composite liners consisting of a 60-mil HDPE geomembrane and four foot thick clay liner are currently required for all municipal solid waste landfills). This is an option, not a requirement, for design of a landfill in areas that may have limitations on obtaining the current minimum four foot clay component for a landfill liner. All four neighboring states have minimum liner design requirements similar to Wisconsin's and allow for an alternative landfill liner design.
  - In Michigan, municipal solid waste landfills must have: (a) a secondary (bottom) composite liner, made of two feet of compacted clay or a manufactured equivalent liner and a 60-mil plastic liner, and (b) a primary (top) composite liner, made of two feet of clay or a manufactured equivalent and a 60-mil synthetic liner. The secondary composite liner is not required if a proposed landfill location already has a natural soil barrier that is demonstrated to provide equal protection (such as 10 feet of natural low-permeability clay) or alternate system that is approved by the director and which prevents the migration of hazardous substances at least as effectively as the other options specified in Michigan rule. Additional leachate collection system components are also required along with a layer, typically two feet of sand, protecting those components.
  - In Minnesota, the liner system in combination with the cover system must achieve an overall site efficiency of 98.5 percent collection or rejection of the precipitation that falls on the disposal area and minimize the amount of leachate leaving the site to the soil and groundwater system below the site. The liner must be four feet of natural soil (clay) barrier or a composite liner with two feet of clay and a 60-mil synthetic liner. An alternative liner system design may be used when approved by the MN agency's commissioner, and is based on the ability of the proposed liner system to control leachate migration, meet performance standards, and protect human health and the environment.
  - Illinois requires its landfill liners have at least five feet of clay in a natural soil liner, or three feet of clay and a 60-mil synthetic liner. Alternative liners may be proposed if the landfill operator demonstrates that alternative technology or material provides equivalent or superior performance to the standard requirements, the technology or material has been successfully utilized in at least one application similar to the proposed application, and methods for manufacturing quality control and construction quality control can be implemented.
  - Iowa requires liner construction to include two feet of compacted soil with a synthetic liner, and has also approved four foot natural soil (clay) liners. Alternate liner designs may be proposed if evidence is provided that the liner can keep contaminant levels below state standards, as monitored downgradient of waste and within 50 feet of the waste boundary. Iowa code states that it must consider at least the following when approving an alternative liner design: the hydrogeologic characteristics of the facility and surrounding land, the climatic factors of the area, the volume and physical and chemical characteristics of the leachate, the sensitivities and limitations of the modeling demonstrating the applicable point of compliance, and practicable capability of the owner or operator.
- The proposed rule adjusts the license fee surcharge paid to the department based upon the number of tons or equivalent volume of solid waste disposed of at each landfill during each quarterly reporting period (currently 15.0 cents/ton): 25.0 cents/ton effective January 1, 2026, 27.0 cents/ton effective January 1, 2031, and 30.0 cents/ton effective January 1, 2036. These 'tipping fees' are assessed per ton of waste disposed of in Wisconsin landfills and are the only tipping fees in Administrative Code. All other tipping fees, totaling \$13/ton when combined, are designated in statute and cannot be impacted by this rule. Revenue from all tipping fees is used at multiple agencies for multiple purposes, including local government recycling grants; programs overseeing air, water, and soil clean up; and general department operations and debt service. The current 15.0 cents/ton license surcharge tipping fee goes directly to the department's Waste and

Materials Management Program to cover a portion of general operations expenditures. The rule also proposes updated plan review fees, most of which had not been changed since 2006, for municipal solid waste landfills and industrial solid waste landfills. Together these fees encompass a portion of funding that supports overall solid waste management work being done by the department; additional funds are provided through legislative appropriations in the biennial budget.

It is difficult to compare funding mechanisms state by state because there are several different methods of assessing fees and determining how the revenue is allocated to one or multiple purposes or programs. The information below does not compare apples-to-apples information with the proposed rules, but is provided for general awareness. Each state is likely to have additional revenues not included here that are also applied to its solid waste work.

- In Michigan, 36 cents is charged for each ton or portion of a ton of solid waste or municipal solid waste incinerator ash that is disposed of in a landfill. Michigan's governor proposed budget recommendations in early 2024 to increase this solid waste surcharge from \$0.36 to \$5.00 per ton. This would generate funds for program oversight of contaminated site cleanup, brownfield redevelopment, recycling, and waste management. Other landfill fees found in Michigan law include permit application fees of \$3,000 to construct a new landfill, \$2,000 to construct a lateral expansion of an existing landfill, and \$1,500 for a vertical expansion.
- In Minnesota, waste management services (waste haulers, transfer stations, incinerators, landfills, local governments) collect and submit to the state a solid waste management tax charged for the solid waste services they provide. The tax rate is 9.75 percent of the sales price charged by the service provider for residential waste, and 17 percent for commercial clients. 70 percent of tax collected goes into Minnesota's Environmental Fund and 30 percent goes into the state general fund.
- Illinois does not charge fees for landfill plan reviews or inspections. The only fees are the tipping fees referenced in the Illinois Environmental Protection Act: if more than 150,000 cubic yards of non-hazardous solid waste is permanently disposed of at a site in a calendar year, the total fee per ton is \$2.22. The fees provide funding for the delegated county enforcement program, various solid waste collection programs and the related staff support for each, as well as solid waste permitting programs.
- In Iowa, fees are paid on each ton landfilled. The base fee is \$4.25 per ton; however, based on penalties and rewards for the landfill's waste diversion efforts, each landfill pays slightly more or slightly less than the base amount. Landfill operators remit a portion of the fee to the state each quarter. The remaining funds are to be used for planning and environmental protection activities at the local level.

#### Court Decisions Directly Relevant

None

#### Analysis of the Rule – Rule Effect – Reason for the Rule

Wisconsin's solid waste management rules were substantially revised in the 1990s to comply with federal municipal solid waste landfill requirements, with limited updates since that time. Wisconsin's rules were developed to be as protective as the standards in the federal Resource Conservation and Recovery Act, commonly referred to as RCRA Subtitle D. This proposed rule amends portions of chs. NR 500 to 524, Wis. Adm. Code, to incorporate changes to solid waste landfill requirements, solid waste management fees, financial responsibility, and reporting requirements. This proposed rule reflects current industry standards and experience gained over the last 30 years related to the design, construction and operation of solid waste landfills while continuing to protect public health and the environment.

This rule proposes changes to regulations affecting municipal solid waste (MSW) landfills and industrial landfills. Many of these changes are designed to create consistency or provide additional clarity. As of May 2024, there were 58 active licensed municipal solid waste and industrial landfills and thousands of

closed landfills in Wisconsin. The department also regulates landfills approved to accept only construction and demolition waste under ch. NR 503, Wis. Adm. Code. The rule does not change requirements in ch. NR 503 or plan review fees specific to construction and demolition landfills, but monitoring requirement changes or other requirements referenced in ch. NR 503 may minimally impact those landfills.

Agency Procedures for Promulgation

The department will hold a virtual hearing on September 30, 2024, at 2:30 p.m. The hearing will be followed by Natural Resources Board adoption, expected in January 2025, followed by a request for the governor's approval and legislative review.

Description of any Forms (attach copies if available)

Existing electronic reporting forms and annual report elements may be updated to reflect changes made in the rule.

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