Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste and Contaminated Sites Section

Alternative Daily Cover Guidance

Background and Purpose

A permitted municipal solid waste landfill may use alternative daily cover (ADC) in lieu of the default 6 inches of clean soil cover material per 567–101.108(2)"f". A list of universally approved ADCs is shown in rule 567–101.108(3)(455B,455D). The landfill may use other materials as ADC if it can be demonstrated to the Iowa Department of Natural Resources (DNR) that the material and thickness will control vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment. Further requirements are included in rule 567–101.108(4)(455B,455D).

The purpose of this guidance is to focus on demonstration requirements to address the risk to human health and the environment when materials that contain and/or are considered solid waste are proposed to be used as ADC.

Storage

ADC stockpiles shall be placed within the footprint of a permitted filling area of the landfill with an approved liner and leachate collection systems, except for materials already universally approved as shown in rule 567–101.108(3)(455B,455D) and materials that do not contain contaminants greater than the Statewide Standards for soil.

In lieu of stockpiling within the footprint, the DNR may consider short-term storage outside of the permitted filling area on a temporary and case-by-case basis. The request would need to address the following, at a minimum, and comply with 567–Chapter 101 as applicable:

- Siting requirements;
- Prescriptive liner but no drainage layer, 2% slope to a sump, and sump can be monitored for leachate head and the leachate readily removed;
    - An equivalent liner to the above, as determined by the Hydrologic Evaluation of Landfill Performance (HELP) Model analysis, may be considered if a reinforced plastic cover is used and the prescriptive plastic bottom liner is not used.
- DNR inspection after construction, during operation, and after removal;
- Operator reporting requirements;
- Financial assurance for disposal of waste (100% capacity of the storage pad), removal and disposal of the liner and cover systems, etc.; and
- Sunset on storage, including liner removal and disposal requirements.

Stormwater Controls

Runoff from an ADC stockpile, the working face, and areas that have received ADC shall be managed as leachate (567–101.107(6)"b"). The permit holder shall maintain on-site an engineering design prepared by an Iowa-licensed professional engineer that demonstrates that stormwater controls are designed and utilized to maintain compliance with 567–subrule 101.107(6). Further guidance is provided in the United States Environmental Protection Agency's 40 CFR Part 258 Technical Manual.

Quantity Limitations

Only material placed at a ratio of 3:1 (3 tons of waste to 1 ton of approved ADC) shall be considered ADC. The 3:1 ratio shall be adjusted if the ADC is mixed with clean soil. For example, if the ADC is mixed 50:50 with clean soil, then the allowable placement ratio would be 6:1 (6 tons of waste to 1 ton of approved ADC). Any material used in excess of that ratio shall be reported as disposed solid waste.

Compliance Schedule

The DNR recognizes that approved ADCs (as of the date of this guidance) may be silent on the above requirements. For example, ADC stockpiling may be occurring outside the footprint of a permitted filling area of the landfill, or stormwater

controls are not in place. In those individual cases, the DNR requests the permit holder submit a compliance schedule to the DNR on or before January 31, 2024, and include a compliance date that is on or before July 15, 2024.