

Alternate Daily Cover

The VSWMR [9 VAC 20-81-140.B.1.c.] allows for the use of “alternate materials of an alternate thickness” to be used as daily cover in lieu of six inches of compacted soil, typically referred to as alternate daily cover (ADC). ADCs must control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

ADC Request and Approval Procedures

Prior to using an ADC, the facility must first submit a request to the appropriate DEQ Regional Office outlining the specific alternate material and thickness proposed for use as an ADC. If the proposed alternate material and thickness appear acceptable, the DEQ Regional Office will issue a letter allowing a 180-day ADC demonstration period. During that period, the facility should use the proposed ADC to demonstrate the material’s effectiveness as daily cover. The facility shall maintain records and take photos of the material’s use as documentation that the proposed ADC controls against disease vectors, fires, odors, blowing litter, and scavenging. Additional factors that need to be considered when evaluating an ADC material include its effectiveness at shedding precipitation and the durability of the material.

At the end of the demonstration period, the facility shall submit an ADC Demonstration Report summarizing the findings on the effectiveness of the material to the DEQ Regional Office. The report should be accompanied by a request for a minor permit modification for the continued use of the material as ADC.

General ADC Demonstration Conditions

The authorization to demonstrate a proposed ADC will be granted with the following general conditions. Additional conditions may be included depending on the ADC material proposed (see next section).

1. The ADC system may be used for a period of 180 days in order to evaluate the effectiveness of the alternate cover material at controlling disease vectors, fires, and odors without presenting a threat to human health and the environment. At the end of the demonstration period, you shall submit a report to the Department that discusses the effectiveness of the ADC material under all weather conditions and whether permanent use of the ADC material is warranted. The report shall discuss the effectiveness of the [Type of ADC] at controlling animals and disease vectors, fires, odors and other nuisances and limiting erosion. Special attention should be directed to assessing the erodability of the ADC material and its ability to provide effective cover.
2. The Solid Waste Compliance Inspector in the [XYZ] Regional Office (Inspector Name: XXX-XXX-XXXX) shall be notified when the use of the ADC material will begin. The use of the ADC material is not authorized until this notification has been made.
3. The ADC material shall be used only as daily cover. All other cover must be as specified in VSWMR and SWP ###.

4. As required by 9 VAC 20-81-140.B.1.c., at least three days of acceptable soil or approved ADC material, at the average usage rate, shall be maintained at the landfill at all times for contingency use.
5. All waste shall be covered with either the ADC material or soil at the end of the working day.
6. The use of the ADC material shall cease if the material is not effective at achieving the purpose of daily cover; if the use of the alternate cover material results in nuisances; or if the alternate material erodes and results in waste being exposed.
7. The continued use of the ADC material after the demonstration period shall not be allowed until specifically authorized by a modification of SWP ###.
8. Based on the outcome of the demonstration, a decision will be made by the Department whether to approve the material as an ADC material. The approval for continued use as an ADC material requires the amendment of SWP ###, in accordance with 9 VAC 20-81-600.F.2. of the VSWMR.

Previously Approved ADCs with Typical Conditions

The following is a list of previous approved ADCs with typical conditions for use. These conditions may vary in site-specific approvals. Please note, this list does not constitute state-wide approval; facilities wishing to use an ADC on this list must request a demonstration using the procedures outlined above.

Auto Shredder fluff/fines/silt, 1:1 with soil

- Applied only within the lined portions of the landfill, on internal slopes, and only in areas where runoff is collected as leachate

Carpet scrap, shredded

- Applied in an 8-inch layer
- Applied only in areas that will receive waste within 24 hours and only on interior slopes where runoff can be managed as leachate

Coal combustion byproducts, 1:1 with soil

CDD residuals (previously approved but rarely used due to inclusion of ground gypsum wall board which can result in nuisance hydrogen sulfide odors)

Contaminated Soils (non-hazardous)

- Levels of PCBs and/or TPH within levels allowable under Part VI of the VSWMR (Special Wastes, 9 VAC 20-81-610 thru 660)
- Applied only within the lined portions of the landfill, on internal slopes, and only in areas where runoff is collected as leachate
- Stockpiles of contaminated soils shall only be in lined areas where runoff is collected and managed as leachate

Crushed glass, 1:1 with soil

Dredged Material

- Material shall be dewatered, must pass the Paint Filter Liquids Test, EPA Method 9095
- Material must be sampled and analyzed
 - Non-hazardous per the Toxicity Characteristic Leaching Procedure (TCLP) for the parameters listed in Table 1, 40 CFR Part §261.24
 - Levels of PCBs and/or TPH within levels allowable under Part VI of the VSWMR (Special Wastes, 9 VAC 20-81-610 thru 660)
- Applied only within the lined portions of the landfill, on internal slopes, and only in areas where runoff is collected as leachate (may vary depending on contaminants in dredge material)

MSW incinerator ash, 1:1 with soil

Mulch/ground wood wastes, 1:1 with soil

Posi-shell and ProGuard spary applied cover material

- Must specify mixture to be applied (i.e. quantity of dry posi-shell/proguard material, water, latex paint, water, etc.; how materials will be mixed; application rate; and desired thickness of spray coating)
- Spray-applied cover material shall be applied to waste from at least two directions to prevent shading effect and to ensure that all waste is covered.

Sludge from WWTP, 1:1 with soil

Synthetic tarp

- Must specify the type of material, size of the tarp, how it will be deployed, and any anchoring

Tire chips, 1:1 with soil