



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

## Use of Alternative Daily Cover at Landfills

Office of Land Quality

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**Description:**

At the end of each working day, landfill operators must cover the waste placed in a municipal solid waste landfill with either 6 inches of soil or an approved alternative daily cover (ADC). Daily cover reduces odor, pest attraction, and fire hazard, and prevents blowing litter and dust. This fact sheet describes the approval processes for ADCs and the performance standards for their use.

The following rules in the Indiana Administrative Code define ADCs and establish their performance and approval standards: 329 IAC 10-2-97.1(9), 329 IAC 10-2-97.1(14), 329 IAC 10-3-3, 329 IAC 10-20-13, 329 IAC 10-20-14 and 329 IAC 10-20-14.1.

**Approval Process for ADCs:**

ADCs must be approved in the facility's permit. A permittee may request approval for any type of ADC in an application for an original permit, a renewal, or a minor permit modification. Some ADCs are eligible for approval through the streamlined insignificant facility modification process. Following are the notification options for obtaining approval.

- For some common ADCs, the permittee may notify IDEM of an insignificant facility modification up to 7 days after beginning use of the ADC(s) (See 329 IAC 10-3-3(b)). ADC materials that qualify for this option are those listed in 329 IAC 10-20-14.1(c), such as:

- Altered tires
- Wood chips
- Compost
- Foundry sand
- Geotextile
- Plastic tarpaulins (tarps)
- Uncontaminated rock, brick, concrete, road demolition waste materials, or dirt
- Dewatered publicly owned treatment works (POTW) sludge
- Dewatered paper sludge
- Petroleum contaminated soil
- Soil contaminated with vegetable oil
- Material containing PCBs at levels allowed under 40 CFR 731.62(d)
- Material containing PCBs of less than 50 ppm that meet the requirements of 329 IAC 10-20-14.1(c)(13).
- Material containing PCBs of less than or equal to 10 ppm that have not been diluted

Although a permittee only needs to submit a notification as described to use these ADCs, the permittee must maintain documentation (329 IAC 10-20-14.1(f)(8)) showing that the ADC complies with the limits and performance standards given at 329 IAC 10-20-14.1(a) and (b).

- ADC materials not eligible for the first notification option described above but that meet the performance standards in 329 IAC 10-20-14.1 (a) and (b) may be approved through an insignificant facility modification as outlined in 329 IAC 10-3-3(c) through (f). The permittee must submit an application letter requesting the facility modification at least 30 days before using the ADC. If IDEM does not approve or deny the insignificant facility modification within 30 days after receiving the request, the applicant may begin using the ADC. These types of materials can include, but are not limited to:
  - Conditioned fly ash and/or slag
  - Dewatered sediments
  - Sandblasting media
  - Shredded lumber and siding

- Spray-on slurries
- ADC materials that may only be approved in an original permit, renewal, or minor permit modification are those not listed in 329 IAC 10-20-14.1(c) that:
  - Do not meet the performance standards in 329 IAC 10-20-14.1(b) when they are delivered to the landfill, but which can be made to meet the performance standards using additional management practices (see 329 IAC 10-20-14.1(e)(1)), or
  - Contain less than 50 parts per million PCBs that results from a source that contains less than 50 parts per million PCBs (see 329 IAC 10-20-14.1(e)(2)).
- An application for any ADC that is not eligible for the first notification option described above must include the following information:
  - Documentation establishing that the proposed ADC is not one of the prohibited materials listed in 329 IAC 10-20-14.1(a).
  - An explanation of how each material to be applied as an ADC meets the performance standards required by 329 IAC 10-20-14.1(b), such as how the material will control or prevent:
    - Blowing litter and dust
    - Attraction of disease vectors
    - Odor
    - Fire
    - Scavenging
    - Waste exposure
  - A demonstration of the PCB content of a representative sample of the material, if the ADC will be approved based on its PCB level.
  - The pH of the material.
  - The size of the particles, demonstrating that it meets the size requirements of 329 IAC 10-20-14.1(b)(4).
  - If applying for a minor modification under 329 IAC 10-20-14.1(e)(1), the application must describe the management practices that will be used to ensure the material meets the performance standards in 329 IAC 10-20-14.1(b)

**Performance Standards and Requirements:**

- All ADC materials must meet the performance standards in 329 IAC 10-20-14.1(b), requiring that the material:
  - Not result in blowing litter or dust
  - Not attract disease vectors
  - Not contribute to fire, odor or scavenging
  - Not be composed of more than 20% particles smaller than 600 microns
  - Not have a bulk density less than 1 gram per cubic meter
  - Not be soluble in water
  - Not exhibit a pH of less than or equal to 5, or greater than or equal to 10
  - Not present a threat to human health or the environment as specified in 329 IAC 10-20-14.1(b)(7), including not exceeding the Occupational Safety and Health Administration (OSHA) exposure limits referenced in this rule and not being ignitable under conditions that exist at the working face of the landfill.
  - Not allow waste to be visible after application of the material
- The permittee must notify the IDEM Solid Waste Compliance Section at least 5 working days before first using any ADC.
- The permittee must comply with the following requirements in 329 IAC 10-20-14.1(f), unless otherwise approved by IDEM:
  - Only apply ADC on areas that will have additional solid waste deposited within the next 7 working days
  - Cover ADC that is exposed for longer than 7 working days with soil (see 329 IAC 10-20-14.1(f)(3))
  - Place ADC on the working face by the end of each day of operation
  - Apply ADC, except for geotextile or plastic tarpaulin, at a minimum thickness of 6 inches
  - Cover any solid waste not covered by an ADC, following the requirements in 329 IAC 10-20-13

- ADC, except geotextile or plastic tarpaulin, must not be reapplied as daily cover
- Retain information in the operating record for 1 year, including:
  - The source of the ADC
  - Documentation used to determine compliance with 329 IAC 10-20-14.1(a)(1)
  - Documentation that the ADC complies with the performance standards of 329 IAC 10-20-14.1(b), when applicable
- Stockpiled ADC materials must be managed in compliance with the storm water pollution prevention requirements of 329 IAC 10-20-12(f) and 329 IAC 10-20-15
- Have a supply of daily cover material readily available that meets the requirements of 329 IAC 10-20-13 if the ADC material does not meet the requirements of 329 IAC 10-20-14.1

**Environmental Impacts:**

- The materials approved as ADCs provide similar environmental protections to the standard soil daily cover:
  - Providing protection from waste leaving an active landfill
  - Preventing fire
  - Minimizing dust and odor
  - Reducing the attraction of rodents, flies, mosquitoes, and other organisms that can transfer infectious diseases

**IDEM's Role:**

- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment while providing for safe industrial, agricultural, commercial, and governmental operations vital to a prosperous economy.
- IDEM's Office of Land Quality is responsible for permitting and inspecting landfills.

**Additional Information:**

- For information regarding the use of foundry sand as an ADC, view the IDEM Nonrule Policy Document, WASTE-0028-NPR, titled "Use of Foundry Sands in Accordance with House Enrolled Act 1541", on the IDEM website at [www.idem.IN.gov/4694.htm](http://www.idem.IN.gov/4694.htm).
- To view the rules in the Indiana Administrative Code that are referenced in this fact sheet, visit the Legislative Services Agency website at [www.in.gov/legislative/iac/](http://www.in.gov/legislative/iac/).
- For additional information about IDEM and Indiana's solid waste regulations, visit IDEM's website at [www.idem.IN.gov](http://www.idem.IN.gov).
- For questions and concerns, feel free to call IDEM's Office of Land Quality, Solid Waste Permits Section at (317) 232-4473 or (800) 451-6027, ext. 2-4473.