



## Old Landfill Sites

Many properties used historically for solid waste disposal were not well documented. As a result, each year redevelopment and construction projects across Colorado unexpectedly encounter landfill waste. What should project managers do when this happens?

## Applicability

In this context, “landfilled waste” does not mean scattered surface litter like that found on any vacant lot, but instead refers to pockets or larger masses of debris or waste fill, with or without surface expression, that can indicate the area was used historically for landfilling. Although this guidance focuses on considerations that come into play when disturbing undocumented historic landfills, it’s important for the sake of completeness to point out that similar requirements apply to disturbing landfill waste at permitted or recently closed landfills.

## Immediate Steps

The most important thing to remember is to stop project work upon discovery of landfilled waste and re-evaluate how to move forward. Digging through landfilled material involves increased risks to human health and the environment above and beyond what is involved with a normal dirt work project. Unless planning to account for the presence of these materials was done up front, there are likely to be risks for which project personnel are not prepared. Employing the services of an environmental professional is recommended and may be required. At a minimum, whenever landfilled material is encountered, the regulatory requirements listed below must be implemented.

Conversely, if the project included a thorough site assessment during the planning stages, it is possible that a materials management plan was developed prior to beginning the project, including procedures for handling landfill waste if encountered. Contact your company’s environmental compliance officer and/or safety manager immediately. You may be required to notify us or develop plans and procedures that we need to approve prior to proceeding with work.

## Regulatory Requirements

Asbestos: Section 5.5 of the *Regulations Pertaining to Solid Waste Sites and Facilities* (6 CCR 1007-2 Part 1, the regulations), lists certain actions required of any person who disturbs buried debris. First, you must characterize the debris to determine if it contains regulated asbestos contaminated soil (RACS). Visual inspection to make this determination can be done by a qualified project monitor or a certified asbestos building inspector (CABI), depending on the materials present. Sampling for definitive confirmation of asbestos materials can only be performed by a certified asbestos building inspector. If regulated asbestos contaminated soil is found to be present, we must be notified and you will have to use engineering controls during the disturbance activities to protect human health and the environment, either under a site-specific plan or an off-the-shelf plan available in Section 5.5.7.

Other Solid Waste: For the most part, the regulations do not apply to waste generators as long as the newly generated waste is properly disposed of at a permitted landfill. On the

other hand, improper disposal (e.g., at an unpermitted solid waste disposal site and facility) would trigger all of the present day regulatory requirements. Ensuring proper disposal requires you to characterize the waste to make sure it is not hazardous or subject to other waste disposal prohibitions that would limit which disposal facilities are able to accept the waste. Examples include batteries, electronic waste, auto bodies, tires, medical waste, buried drums, pesticide containers, and impacted soil associated with the above. You should check with potential receiving landfills to make sure that you meet their waste acceptance requirements before deciding which landfill you will use.

Impact to Engineered Features: Section 3.6 of the regulations requires the owner or operator (which can be the same as, or different than, the entity conducting the disturbance) to seek the approval of our Solid Waste Permitting Unit prior to disturbing the cover of a closed landfill. In order to approve the disturbance, we will be looking for: 1) a materials management plan with procedures to cover regulated asbestos contaminated soil and other solid waste; 2) a plan for rebuilding the landfill cover if waste will remain in place (how extensive the plan needs to be depends on the extent of disturbance and the specifications in the original landfill cover design); and 3) financial assurance to cover the cost of rebuilding the landfill and conducting some limited post closure care to ensure the rebuilt and revegetated cover is stable.

### Other Considerations

Worker Health and Safety: Although regulated by the Occupational Safety and Health Administration (OSHA), not us, it is important to recognize that there are hazards associated with historic landfills which pose risks to workers, including the previously mentioned asbestos, other special wastes and methane. These worker risks would be addressed separately in your Health and Safety Plan.

Future Land Use: Construction on or near buried waste requires attention to methane mitigation, geotechnical stability and potential indoor air issues associated with groundwater contamination. Most of these sites, even if they closed under a regulatory framework appropriate for the time when closure occurred, were not evaluated for potential indoor air issues. You should work with us to develop plans for safely addressing these issues.

### Contacts

Solid Waste Permitting Unit: We divide responsibility among staff members according to county assignments. To obtain the phone number of the solid waste permitter having responsibility for your area, please refer to our website at [www.colorado.gov/cdphe/swpermitting](http://www.colorado.gov/cdphe/swpermitting).

Section 5.5 involving regulated asbestos contaminated soil (RACS) management: Please contact Brian Long at 303-691-4033 or [briant.long@state.co.us](mailto:briant.long@state.co.us).

Voluntary Cleanup Program: For sites that predated the Solid Waste Act (1967) and adoption of its implementing regulations (1968), you may choose to work with the Voluntary Cleanup and Redevelopment Program. Their contact information can be obtained on our website at [www.colorado.gov/cdphe/voluntary-cleanup-contacts](http://www.colorado.gov/cdphe/voluntary-cleanup-contacts).

### For more information

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