



Non-Residential Lead-Based Paint

Guidance Document

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Alaska Department of Environmental Conservation
Division of Environmental Health
Solid Waste Program

Construction and Demolition waste (C&D) with lead-based paint (LBP) may be disposed of in Alaska landfills if certain conditions are met. First, non-residential LBP debris, dust, chips, or sludge waste are subject to the toxicity criteria in 40 CFR 261.24, which is demonstrated using the Toxicity Characteristic Leaching Procedure (TCLP) test. Waste with a TCLP concentration for lead of less than 5 mg/L is eligible for disposal in certain landfill cells.

Alaska Landfill Disposal Options

Under the definition of “Polluted soil” in 18 AAC 60.900(103)(B), a residue or other material that is placed into a landfill and that is not a regulated hazardous waste but contains a hazardous substance in a concentration exceeding the applicable soil cleanup levels set out in 18 AAC 75.341, Table B1 or Table B2, the material is classified as a polluted soil. For the purposes of LBP waste, this means that if the lead concentration exceeds 400mg/kg, the material must be managed as a polluted soil at the landfill (regardless of whether the LBP waste is soil or debris). For the purposes of this guidance document, LBP waste exceeding 400 mg/kg of lead will be referred to as “polluted material”.

The applicability of disposal rules to LBP waste that is classified as polluted material depends on the type of landfill cell being considered for disposal. Under 18 AAC 60.025, polluted material may be disposed of in a Class I landfill cell that meets all of the applicable requirements of 18 AAC 60 and federal law for the disposal of industrial solid waste or for drilling waste. This means that this material can be placed into a lined landfill cell with no further ADEC approvals as long as it is below the TCLP threshold of 5 mg/L. However, if the proposed disposal cell is not lined, then 18 AAC 60.025(d) and (e) apply.

Disposal in an Unlined Landfill – Demonstration Requirements

Under 18 AAC 60.025(d) and (e), polluted material cannot be disposed of in an unlined cell at a municipal landfill or an inert waste monofill without a demonstration of the following:

- 1) the waste in the landfill cannot be washed into nearby surface water and leachate from the landfill cannot reach nearby surface water;
- 2) the polluted soil, if it is disposed of in the landfill, will not cause a threat to public health, safety, or welfare, or to the environment;
- 3) a practical potential does not exist for migration of a hazardous constituent from the landfill to an aquifer during the active life and post-closure care of the landfill; and
- 4) the owner of the landfill agrees to implement institutional controls that the department determines are necessary for long-term protection of the public health, safety, and welfare and the environment.

This demonstration must be based on site specific factors for the proposed landfill, the characteristics of the contaminant, and the contaminant concentration. ADEC must also concur with the sampling methodology to ensure that the concentrations being evaluated adequately characterize the waste.

Landfills have two options for approaching the demonstration process:

- 1) the landfill can provide a demonstration for ADEC approval for each disposal event, or
- 2) the landfill can provide a demonstration for ADEC approval during the permitting process for the facility to set a maximum lead concentration for LBP that can be accepted without further approval from ADEC.

Sampling

In order for LBP to be disposed of in an unlined landfill cell, it must be properly characterized to determine if the total lead concentration for the material exceeds the 400 mg/kg limit for being considered a polluted material. Each paint type on any structure or media must be sampled separately to determine the total lead concentration. The samples must be collected from the paint itself using either a paint scraper tool, chisel, or other tool that allows for collection of the paint only. The goal is to sample the source material to determine the lead concentrations. If above the threshold of 400 mg/kg, additional sampling will be necessary to aid in the demonstration process.

For TCLP testing as part of the demonstration to show that the lead will not leach from the material, each material coated in LBP must be sampled and tested individually. For example, if an interior wall is coated with LBP, a representative sample of only that material should be collected. This allows for a more realistic assessment of the potential risk associated with different waste streams coated with LBP. ADEC doesn't support the use of whole building composite sample results when making a demonstration under 18 AAC 60.025 (d) & (e). ADEC recommends a similar approach of sampling source materials for determining if the concentrations of LBP are considered hazardous.

To reduce the volume of LBP contaminated material that will have to be disposed of out of state, ADEC recommends that certain waste materials with high lead concentrations, that can be segregated easily, be removed, and disposed of as a hazardous waste. An example of this would be windowsill boards or trims that contain very high concentrations of lead-based paints. This may drastically reduce the amount of waste considered hazardous and allow for more of the building to be disposed of in state.