

What Is the Field Guide?

This guide will help determine that a recently-renovated area has been cleaned sufficiently. The Lead Dust Sampling Technician Field Guide should be used by lead dust sampling technicians. The guide provides protocols for conducting post-renovation clearance under EPA's Renovation, Repair, and Painting Rule (RRP) covering housing and child-occupied facilities built before 1978, and clearance examinations under HUD's Lead Safe Housing Rule (LSHR) in federally-assisted housing built before 1978. This guide also provides federal standards for maximum allowable contamination levels of residual lead dust.

How To Use This Guide

Take this guide with you on site when you perform clearance, including visual inspections. It serves as a quick reminder of:

- When and where to take lead dust clearance samples;
- The step-by-step instructions for taking a dust wipe sample; and
- EPA/HUD clearance standards for lead dust.

When To Perform Lead Dust Clearance Tests

Renovation activities that disturb lead-based paint can create lead dust so proper cleanup after these jobs is critical. The purpose of lead dust clearance is to determine if the area is safe for re-occupancy.

Lead dust clearance is performed:

- After renovation, repair, painting, and cleaning activities are finished in property built before 1978 and where children are assumed to spend time.
- After hazard reduction or maintenance activities in most federally-assisted properties built before 1978 that are covered by HUD's LSHR.

Lead dust sampling technicians should NEVER perform post-abatement clearance. (Abatement—as opposed to renovation, repair and painting—is a term used for the complete removal of lead.) When performing clearance, the lead dust sampling technician is required to bring a copy of his or her certificate of initial training to the worksite.

Where To Collect Samples for Lead Dust Clearance Tests

If there is more than one room, hallway, or stairwell within the work area, take:

- One windowsill sample and one floor sample within each room, hallway, or stairwell (no more than four rooms, hallways, or stairwells need be sampled).
- If the windows were not closed and covered with plastic during the renovation, also take one window trough sample in each room, hallway, or stairwell (no more than four need be sampled).
- One floor sample adjacent to the work area, but not in an area that has been cleaned.

For federally-assisted housing, take these samples if the work area is contained, otherwise, clear the whole unit.

If the work area is a single room, hallway, or stairwell, or a smaller area, take:

- One windowsill sample and one floor sample.
- If the windows were not closed and covered with plastic during the renovation, also take one window trough sample.
- One floor sample adjacent to the work area, but not in an area that has been cleaned.

Equipment List

- Disposable lead dust wipes (individually wrapped)
- Disposable gloves
- Disposable shoe covers
- Sample tubes with caps
- Re-usable templates
- Masking or painter's tape
- Ruler
- Sample collection forms
- Chain-of-custody forms
- Markers, trash bags, labels, pens, re-sealable storage bags
- Calculator
- Sanitary wipes



Check with your laboratory for their sampling requirements

Visual Inspections



Lead dust clearance testing for both EPA's RRP Rule and HUD's LSHR requires a visual inspection as a first step in the clearance process:

- Under both HUD and EPA rules, the visual inspection is designed to determine if the area is free of visible dust and debris before lead dust clearance testing can begin.

In addition, under HUD's rule the visual inspection determines whether the unit/work area (interior and exterior) is clear of visible

conditions that can result in exposure to lead-based paint hazards:

- Deteriorated paint
- Chips or debris
- Visible dust

Lead Dust Wipe Sampling

Single or composite samples can be taken; however, single-surface sampling is recommended to get results for specific surfaces. Use durable, re-usable 12" x 12" sampling templates, a disposable template, or use tape to lay out the sampling area.

Step One: Put on disposable shoe covers and lay out the sample area

- Clean template with a new wipe.
- Tape template to surface.
- If no template, outline with tape.
- Using tape to lay out the sample area, make sure that on floors the tape is laid in a square. On sills and troughs, the tape should be laid perpendicular to the sill.
- DO NOT touch the area inside the template.

Note: Use disposable shoe covers when walking between buildings and remove shoe covers before entering your vehicle to help minimize the spreading of settled lead dust from one location to another.

Step Two: Prepare the sample tubes

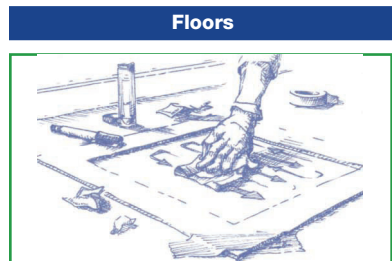
- Use clean tubes.
- Label tube with ID number.
- Record ID number on sample collection form and chain-of-custody form.
- Partially unscrew tube cap.
- Place tube near sample area.

Step Three: Put on clean gloves

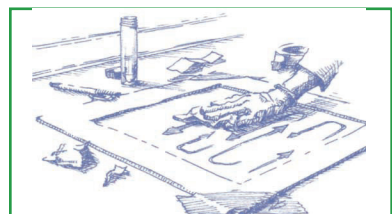
- Use disposable gloves.
- Use new gloves for each sample.
- DO NOT touch anything except the wipe after putting on the gloves.

Step Four: Wipe sample area and place wipe in sample tube

- Do not touch other objects.
- Press the wipe down firmly at an upper corner of the sample area.
- Make as many "S"-like motions as needed to wipe the entire sample area, moving from side to side. Do not cross the outer border of the tape or template.
- Fold the wipe in half, keeping the dirty side in, and repeat the wiping procedure in the original direction in a forward and back motion.



Start at corner and wipe sideways.



Now wipe in a forward and back motion.

- Fold the wipe again and repeat the wiping procedure, concentrating on collecting dust from the edges and corners of the sample area.

Step Four: (Continued)

- Fold the wipe again with the sample side folded in, and place the folded wipe into the sample tube.
- Cap the container. Discard the gloves into a trash bag.
- Label the centrifuge tube and record the dimensions of the sampling area.

Step Five: Measure the sample area

- Measure width and length (unless template was used).
 - Length of sill or trough between edges of tape
 - Width of sill or trough, measure at tape
- Measure to 1/8 inch.
- Do not remove tape until after measurements are taken.

Step Six: Record sample area dimensions on forms

- Calculate the sample area and record on sample collection form and laboratory chain-of-custody form.

Step Seven: Clean up

- Clean template with a clean wipe; place in a plastic bag for storage.
- Remove materials from site:
 - Gloves, tape from floors and windows, and used shoe covers
 - Put items in trash bag, NOT in client's trash containers
- Clean face and hands with warm, soapy water.
 - Use sanitary wipes if you do not have access to warm, soapy water
- Send the samples to a laboratory recognized by the National Lead Laboratory Accreditation Program (NLLAP) as being proficient in lead in dust analysis. For information on locating EPA-accredited labs, visit <http://www.epa.gov/lead/pubs/nllaplist.pdf>.

Evaluate the Results

- Compare the laboratory results to the EPA clearance standards for residual lead dust provided below:
 - Floors: 10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$)
 - Interior windowsills: 100 $\mu\text{g}/\text{ft}^2$
 - Window troughs: 400 $\mu\text{g}/\text{ft}^2$

These standards are for single-surface samples. The clearance standards for composite samples will be different depending on how many sub-samples are collected. Before collecting composite samples, check with your laboratory. Note that HUD discourages composite sampling when clearing federally-assisted housing.

Write the Report

- Use the standard report format.
- Sign the report.

Useful Resources

National Lead Information Center

1-800-424-LEAD (1-800-424-5323)
<http://www.epa.gov/lead/pubs/nlic.htm>

For a wide range of lead information—from outreach brochures to technical reports—on lead-based paint in the home.

National Lead Laboratory Accreditation Program

<http://www.epa.gov/lead/pubs/nllaplist.pdf>

For information on locating EPA-accredited labs.

Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (7404T)
Washington, DC 20460
202-566-0500
<http://www.epa.gov/lead>

For information on EPA lead-based paint regulations.

Office of Healthy Homes and Lead Hazard Control

U.S. Department of Housing and Urban Development (HUD)
451 Seventh Street, SW
Washington, DC 20410
202-755-1785
<http://www.hud.gov/offices/lead>

For information on the HUD lead-based paint regulations and technical assistance in complying with the HUD regulations for HUD-funded work.

United States
Environmental
Protection Agency

Office of
Pollution Prevention
and Toxics

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