

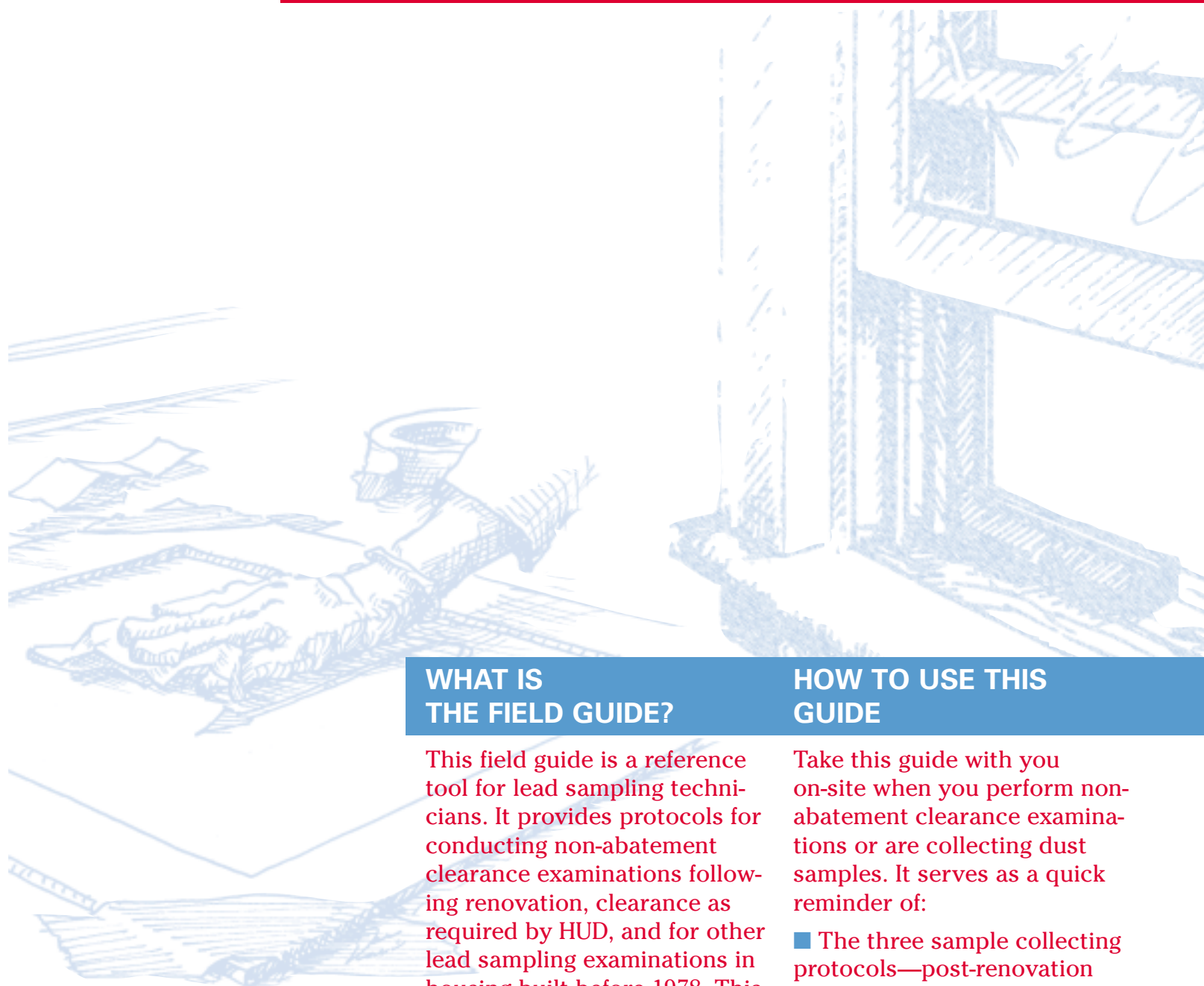
United States  
Environmental Protection  
Agency

Office of Pollution  
Prevention and Toxics

EPA 747-B-00-004  
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# Lead Sampling Technician Field Guide



## WHAT IS THE FIELD GUIDE?

This field guide is a reference tool for lead sampling technicians. It provides protocols for conducting non-abatement clearance examinations following renovation, clearance as required by HUD, and for other lead sampling examinations in housing built before 1978. This guide also provides Federal guidance and standards for lead-contaminated dust and gives step-by-step instructions for taking a dust wipe sample.

## HOW TO USE THIS GUIDE

Take this guide with you on-site when you perform non-abatement clearance examinations or are collecting dust samples. It serves as a quick reminder of:

- The three sample collecting protocols—post-renovation clearance, HUD-required clearance, and sampling to identify lead-contaminated dust in the home;
- What to tell your client; and
- EPA and HUD guidance.

## Which Type of Lead Sampling Examination is Appropriate?

### Conduct post-renovation clearance...

After renovation, remodeling, and repainting activities are finished in a privately owned house or multi-family property built before 1978.

### Conduct HUD-required clearance...

When non-abatement clearance is required under HUD's lead-based paint regulation (24 CFR 35). The requirements often apply to HUD-funded rehabilitation and for HUD-supported housing.

### Conduct other lead sampling...

When you want to know if there is lead-contaminated dust in your home or

If you own or manage an apartment, at apartment turnover to check for lead-contaminated dust.

#### EQUIPMENT LIST

- Moist baby wipes or towelettes
- Sample collection tubes
- Disposable gloves
- Sampling area templates
- Tape measure or ruler
- Tape
- Pen, indelible ink marker
- Trash bag(s)



## Who Can Perform Each Type of Examination?

### Post-Renovation Clearance

■ State requirements for lead sampling vary by state. Sampling technicians should check with their state's agency responsible for lead before conducting sampling. No certification is required unless state and local laws require it. (Certified paint inspectors and risk assessors may also perform post renovation clearance.)

■ Lead sampling technicians cannot perform clearance following abatement where the work is intended to permanently eliminate lead-based paint or lead hazards. EPA requires that post-abatement clearance be performed by certified paint inspectors and risk assessors.

### HUD-Required Clearance

■ Lead sampling technicians can perform HUD-required non-abatement clearance if they are certified. If they have taken lead-sampling training but are not certified, they can perform clearance if under the supervision of a certified paint inspector or risk assessor. State and local laws may also apply.

■ Lead sampling technicians can perform HUD-required non-abatement clearance in single units in single- or multifamily properties. If a subset of units in a multifamily property is being used to clear the entire property, the sampling technician must be supervised by a certified paint inspector or risk assessor.

■ Lead sampling technicians cannot perform clearance in situations where abatement was performed. Abatement must be performed by certified abatement contractors and post-abatement clearance must be performed by certified paint inspectors and risk assessors.

■ The person conducting the clearance examination must be independent from the individual or contractor that performed the work. However, a qualified in-house employee can conduct the clearance if he/she did not perform the hazard reduction or maintenance activity.

### Other Lead Sampling

■ Dust samples can be collected by a trained lead sampling technician to check for lead-contaminated dust.

■ Paint chip, soil, and water samples should be collected by certified risk assessors or lead-based paint inspectors only.

## Post-Renovation Clearance Examination

### How to Do It

#### 1 Tell the client about cleaning to remove lead-contaminated dust.

- Tell the client to clean the work area before the clearance examination. Ideally, cleaning should take place at least one hour after work is complete and at least one hour before the clearance examination. Provide a factsheet on cleaning to the client. (Provide a fact sheet similar to the one provided in the student manual for the Lead Sampling Technician Course.)

#### 2 Determine the clearance area.

- Ask the client where work took place.

#### 3 Conduct visual assessment of the clearance area.

- If there are visible dust, construction debris or paint chips in the clearance area, advise the client to clean before taking dust samples.
- If there is deteriorated paint in the clearance area, record the locations on the visual evaluation form. Inform the client that the deteriorated paint should be repaired to prevent possible lead exposure. Provide information on safe paint repair.

#### 4 Take dust samples.

- Take a dust sample on:
  - ✓ Up to 4 floor surfaces (in rooms where work occurred)
  - ✓ Up to 4 window sills (if work was done on windows)
- Single or composite samples can be taken, however, single surface sampling is recommended to get results for specific surfaces.

- Dust samples do not need to be taken for exterior surfaces. (For exterior clearance only a visual assessment is necessary.)

#### 5 Analyze the results.

- Compare the laboratory results to the EPA guidance provided below.

##### EPA Guidance:

- ✓ Floors: 100  $\mu\text{g}/\text{ft}^2$
- ✓ Interior window sills: 500  $\mu\text{g}/\text{ft}^2$

#### 6 Write the report.

- Use the standard report format. Attach fact sheets on safe paint repair, cleaning to remove lead-contaminated dust, sources of lead exposure, and monitoring painted surfaces.
- Sign the report.
- If the clearance failed, state this in the report. Tell the client that the work area or dwelling should be recleaned and recommend that clearance be conducted again.

## HUD-Required Clearance Examination

### How to Do It

#### 1 Tell the client about cleaning to remove lead-contaminated dust.

■ Cleaning should take place at least one hour after work is complete and at least one hour before the clearance examination. Provide a factsheet on cleaning to the client.

#### 2 Determine the clearance area.

■ The client should identify the clearance area.



■ In most cases, the clearance examination is conducted for the entire unit. In some cases, the clearance examination is conducted for the work site only. This is the case with HUD-funded rehabilitation under \$5,000 and for hazard reduction work associated with maintenance required by the HUD lead-based paint regulations.

#### 3 Conduct visual assessment of the clearance area.

■ If there are visible dust, deteriorated paint, construction debris or paint chips in the clearance area, record the locations on the visual evaluation form. Inform the client that these conditions must be corrected before taking dust samples. If deteriorated paint is found, it must be stabilized.

✓ If the client states that these areas are not covered by the clearance exam, you may continue with the exam. A satisfactory explanation would be that the surface has been tested and does not contain lead-based paint or that the surface is not part of the clearance area.

#### 4 Take dust samples.

■ For unit-wide clearance (in most situations), sample work areas and areas where children spend time (kitchen, living room, child's bedroom)

✓ Up to 4 floors (one per room)  
 ✓ Up to 4 windows (one per room).  
*If work involved windows, alternate between interior sills and troughs. If work did not involve windows, sample only interior sills.*

■ For worksite clearance (only for rehabilitation jobs less than \$5000

and some maintenance activities), take samples only in the worksite:

✓ Up to 4 floor surfaces (one per room)  
 ✓ Up to 4 windows (one per room).  
*If work was done on windows, alternate interior sills and troughs (up to 2 of each). If no window work was done, sample up to 4 interior sills.*

■ Single surface sampling is recommended to get results for specific surfaces.

#### 5 Analyze the results.

■ Compare the laboratory results to the HUD interim standards provided below.

##### HUD Interim Standards:

- ✓ Floors: 40  $\mu\text{g}/\text{ft}^2$
- ✓ Interior window sills: 250  $\mu\text{g}/\text{ft}^2$
- ✓ Window troughs: 800  $\mu\text{g}/\text{ft}^2$

#### 6 Write the report.

■ Use the standard report format. Attach fact sheets on safe paint repair, cleaning to remove lead-contaminated dust, potential sources of lead exposure, and monitoring painted surfaces.

■ The report must be signed by the lead sampling technician or a supervisory risk assessor or paint inspector.

■ If the unit failed clearance, the client must:

- ✓ Stabilize any deteriorated paint.
- ✓ Re-clean the unit.
- ✓ Have the clearance examination conducted again.



## Other Lead Sampling Examinations

## Other Useful Resources

### How to Do It

#### 1 Tell the client about cleaning and testing options.

- Cleaning—client may or may not want to clean prior to the examination. Provide the client information on cleaning techniques.
- Testing options—the client may choose to use single or composite dust wipe samples.

#### 2 Determine the sampling area

- The sampling area is likely to be the whole unit.
- Ask the client where children spend time, where work was done, where paint has deteriorated, etc.

#### 3 Conduct a visual assessment of the sampling area.

- If there are visible dust, construction debris or paint chips in the sampling area, advise the client to clean the dust and debris before taking dust samples.
- ✓ If there is deteriorated paint in the sampling area, record the locations on the visual evaluation form. Inform the client that the deteriorated paint should be repaired to prevent possible lead exposure. Provide a factsheet on safe paint repair.



#### 4 Take dust samples.

- Perform dust sampling in at least four rooms. Sample:
  - ✓ 4 floors (4 single samples or 1 composite sample)
  - ✓ 2 interior window sills (2 single samples or 1 composite sample)
  - ✓ 2 window troughs (2 single samples or 1 composite sample)
- Choose 4 rooms/areas to sample where children spend the most time.

#### 5 Analyze the results.

- Compare the laboratory results to the EPA guidance provided below.

##### EPA Guidance:

- ✓ Floors: 100  $\mu\text{g}/\text{ft}^2$
- ✓ Interior window sills: 500  $\mu\text{g}/\text{ft}^2$
- ✓ Window troughs: 800  $\mu\text{g}/\text{ft}^2$

#### 6 Write the report.

- Use the standard report format. Attach fact sheets on safe paint repair, cleaning to remove lead-contaminated dust, potential sources of lead exposure, and monitoring painted surfaces.
- The report should be signed by the lead sampling technician. If lead-contaminated dust is found, encourage the client to:
  - ✓ Clean the unit and conduct sampling again.
  - ✓ Repair deteriorated paint using safe work practices (provide fact sheet similar to the one in the student manual for the Lead Sampling Technician Course).
  - ✓ Consider hiring a risk assessor to get more information about the unit.

#### Office of Pollution Prevention and Toxics (OPPT) / U.S. Environmental Protection Agency (EPA)

401 M Street, SW (7401)  
Washington, DC 20460  
202-260-3810 • <http://www.epa.gov/lead>  
OPPT can provide information on EPA regulations regarding lead-based paint in the home.

#### Office of Lead Hazard Control (OLHC) / U.S. Department of Housing and Urban Development (HUD)

451 Seventh Street, SW, Room P-3206  
Washington, DC 20410  
202-755-1785  
<http://www.hud.gov/lea/leahome.html>  
OLHC can provide information on the HUD lead-based paint regulations and technical assistance in complying with the HUD regulations for HUD-funded work.

#### National Lead Information Center (NLIC)

8601 Georgia Avenue, Suite 503  
Silver Spring, MD 20910  
Information Clearinghouse:  
1-800-424-Lead (1-800-424-5323)  
<http://www.epa.gov/lead/nlic.htm>  
Clearinghouse of information—from outreach brochures to technical reports—on lead-based paint in the home.

## Taking Lead Dust Wipe Samples

### 1 Lay out the sample area.

- Tape the template to the floor or use tape to outline the sample area.
- ✓ Do not touch or disturb the area inside the template or tape.

### 2 Have the sample collection tube ready.

- Label each tube with its own identification number to be recorded on the sample collection form. Use indelible ink. Place partially opened tubes near the spot you will sample.

### 3 Put on clean gloves.

- Put on clean gloves *before* collecting each sample. Do not touch anything other than the wipe after putting on the gloves.

### 4 Wipe sample area.

- Wipe the sample area using a moist baby wipe or towelette.
- ✓ Wipe the entire area inside the template or tape.
- ✓ Starting at an upper corner of the sample area, make an "S" like motion wiping the entire sample area. Press firmly with your fingers.
- ✓ Fold the wipe in half, dirty side to dirty side.
- ✓ Make another "S" motion in the opposite direction, perpendicular to the first "S" motion.
- ✓ For narrow interior window sills and troughs, use a side to side motion.
- ✓ Place the folded wipe in the nearby tube or sampling container.

### 5 Write down the measurements of the sample area.

- If a template is used, record its measurement. If tape is used, measure the width and length of the sample area.

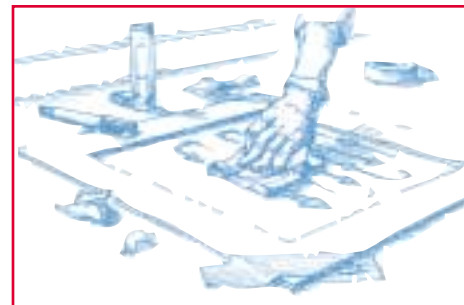
### 6 Clean the sampling equipment.

- Clean all of the sampling equipment including tape measure or ruler.

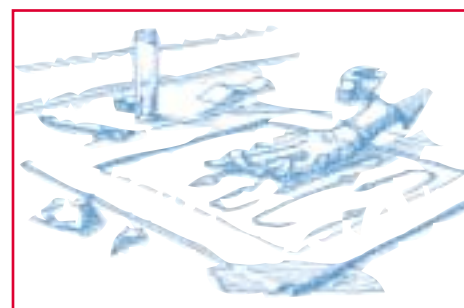
### 7 Send the samples to a laboratory recognized by the National Lead Laboratory Accreditation Program (NLLAP).

#### If you do composite sampling:

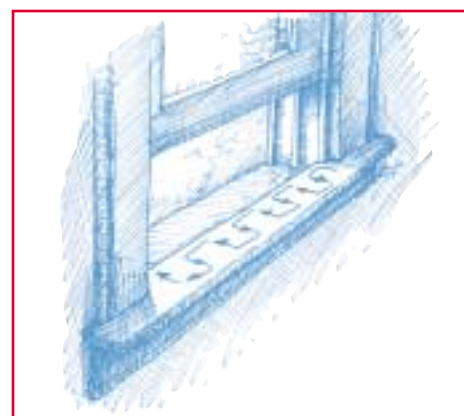
- ✓ Be sure the lab will analyze composite samples.
- ✓ Up to four floor wipes can be put into one tube.
- ✓ Do not mix wipes from different sample areas. For example, do not put wipes from a windowsill and floor in the same tube.
- ✓ Label the location of each sample area on the tube.



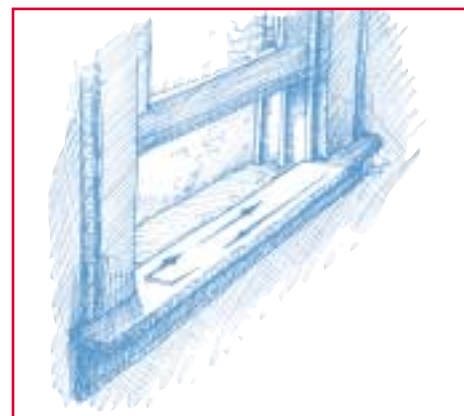
Start in corner and wipe sideways



For the second pass, wipe in the opposite direction



Wipe from side to side



For the second pass, wipe in the opposite direction