U.S. Department of Housing and Urban Development

Lead-Based Paint Visual Assessment Training

Introduction to the Course

Welcome the the HUD Lead Based paint Visual Assessment Training Course!

Here's how this training works: Each slide follows a specific sequence. The arrows at the bottom should be used to go forward or back. At the end of the training, there is a short test. Once you have successfully completed the course and the test questions, you will have the opportunity to print a notice of completion and download a copy of the training course.

Course Outline

Here is a list of the topics covered in this course:

- The Purpose of This Training
- Background of Lead-Based Paint
- Identify Deteriorated Paint
- Identify Types of Deterioration
- Describe Causes of Deterioration
- Summary of Deterioration
- Repair Deteriorated Paint

Purpose of Training

Training is required by the U.S. Depart of Housing and Urban Development's (HUD) new lead-based paint regulation (24 CFR Part 35, et al.). This training is intended for those already inspecting housing units.

You may be a:

- Housing quality standards inspector
- Maintenance supervisor
- Building engineer
- Person with housing inspection duties
- Lead-Based paint risk assessor
- Lead-Based paint inspector
- Sampling technician
- Other building maintenance staff

Training Overview

This training will take you about an hour to complete. The Visual Assessment training will help you:

- understand why identifying deteriorated paint during a visual assessment is important
- how to identify deteriorated paint (i.e.., chipping, cracking, chalking, damaged, separated from substrate)
- understand how deteriorated paint must be treated

You will build on your skills and experience to allow you to visually assess the properties of deteriorated paint and therefore protect children.

Note: This course will not qualify you to perform clearance sampling or lead-based paint risk assessments

Why Is This Training Important?

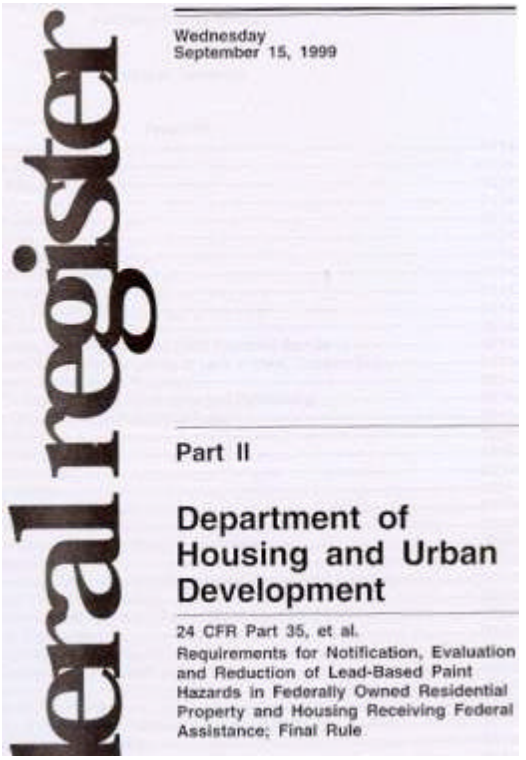
Deteriorated paint is a major source of lead in dust. This dust can be ingested by children and other at risk groups and poison them.

Identifying and eliminating deteriorated paint helps to reduce the risk that lead poses to children.

What Does the Regulation Require?

For certain programs such as tenant-based Section 8 rental assistance, the new HUD Regulation on Lead-Based Paint Hazards in Federally Owned Housing and Housing Receiving Federal Assistance requires:

- Visual assessment of housing units for deteriorated paint
- The stabilization and repair of all deteriorated paint
- The visual assessor must be trained to perform a visual assessment


Wednesday
September 15, 1999

Part II

Department of Housing and Urban Development

24 CFR Part 35, et al.
Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance; Final Rule

You will need to identify deteriorated paint in the units you evaluate. All deteriorated paint must be stabilized.

Background of Lead-Based Paint

Before you start to study visual assessment, it is important to know some key facts about lead-based paint. Below is a list of topics covered in this section.

- The history of lead-based paint
- The health impacts of lead-based paint
- Facts about lead poisoning in America

The History of Lead-based Paint

Lead-Based paint was used extensively before 1960 because it was more durable than other paints available at the time. Due to the harm caused by lead in paint, lead-based paint was banned from residential use in 1977.

The Health Impacts of Lead

Lead interferes with the development of the nervous system and internal organs.

The risk from lead poisoning is greatest in children under age six. Young children do not understand the risks of deteriorated lead-based paint, so we must take action to protect them.

Who Else is Affected by Lead?

It is important to note that anyone can be affected by lead. Besides young children, some high risk groups include:

- Pregnant women
  - Women can pass lead on to their babies during pregnancy

Who Else is Affected by Lead?

Again, it is important to note that anyone can be affected by lead. Besides young children, some high risk groups also include:

- People who are exposed to lead during their work or hobbies.

These groups:

- ❑ Painters
- ❑ Battery workers
- ❑ Maintenance workers
- ❑ Carpenters

Lead Poisoning in America

Consider these facts about lead poisoning in America:

- Over 800,000 young children have lead poisoning
- Children living in older housing are poisoned more frequently
- The condition of housing plays a large role -- deteriorated paint allows lead to be accessible to children

Identify Deteriorated Paint

The first step in conducting a **visual assessment** is to identify deteriorated paint. Below is a list of steps in this process.

- Define deteriorated paint
- Identify deteriorated paint
- De minimis levels
- Identify surfaces where deteriorated paint is commonly found
- Practical Exercise

Define "Deteriorated Paint"

The HUD regulation defines deteriorated paint as:

> "Any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate."

How to Identify Deteriorated Paint

To identify deteriorated paint, you will need to answer this question

Is the paint peeling, chipping, chalking or cracking?

If the answer to this question is yes, then the paint should be considered deteriorated.

De minimis Levels

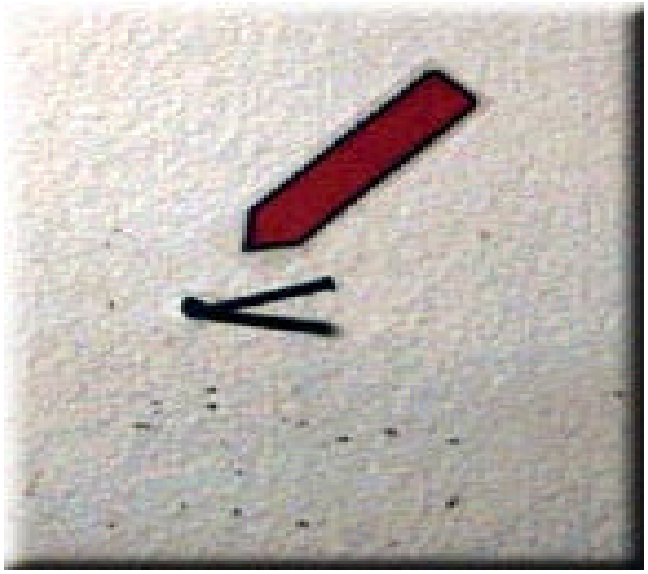
When performing a visual assessment, you will not be asked to identify tack or nail holes, small hairline cracks or other surface imperfections that are stable since the paint will most likely not be damaged.

However, if the size is larger than a nail hole or hairline crack, you should consider the paint to be deteriorated.

How Small is too Small?

HUD has identified size thresholds for how the repairs must be made, these thresholds are known as de minimis levels.

It is important to note that de minimis levels control **how** a repair must be made, not whether the repair is made. As always, if deteriorated paint is identified, it must be repaired.



De minimis Levels Defined

If more than ten percent (10%) of the total surface area of an interior or exterior type of component with a small surface area is deteriorated, the de minimis level has been exceeded. Examples would be window sills, baseboards, and trim.

Exterior de minimis Levels

The de minimis level is 20 square feet for exterior surfaces.

- This means a total of 20 square feet on all the exterior surfaces
- This includes outbuildings, fences, and play equipment attached to the land and belonging to the owner
- Twenty square feet is a square about 4 feet 6 inches on each side (about the size of the square shown on the photo)

If all the deteriorated paint on **all** of the building components is larger than the square, safe work practices and clearance must be performed.

Interior de minimis Levels

The de minimis level is two square feet in any one interior room

- This means a total of 2 square feet of deteriorated paint on the floors, walls, and ceiling in the room
- Two square feet is a square about 17 inches on each side
- If all of the deteriorated paint on all of the building components is larger than the square, safe work practices and clearance must be performed

Examples of de minimis Levels

Consider an interior room with 50 linear feet (if you measured the total length of all the walls in the room) and a baseboard that is 6 inches tall. Suppose the deteriorated area was 6 by 12 inches in size, would that exceed the de minimis level? The answer is no. The deteriorated area does not exceed ten percent of the total area. Here are the calculations:

- Total area:
  50 feet x 6 inches (0.5 feet) = 25 square feet total area
- Calculate ten percent of the total area:
  25 square feet x 0.1 = 2.5 square feet
- Deteriorated area:
  6 inches (0.5 feet) x 12 inches (1 foot) = 0.5 square feet

Since the deteriorated surface area (0.5 square feet) is less than ten percent of the total area (2.5 square feet) and less than 2 square feet, the area does not exceed the de minimis level.

Identify Areas Where Deteriorated Paint is Common

You should look for deteriorated paint on all painted building components, especially any exterior and interior walls, windows, or trim damaged from a roof or plumbing leak.

Also look on surfaces that experience friction or impact

- When two surfaces slide across each other or strike one another, the painted surface may become deteriorated
- Examples of friction and impact surfaces are doors, windows, floors, and trim areas

Is There Anything else You Should Look For?

When performing a visual assessment, you should also look for.

- Paint chips or dust from painting activities that were not cleaned up
- Paint residue on the floors (this paint might be a hazard for small children)
- Evidence of paint chips in the soil near driplines on exterior surfaces

Practical Exercise

Take a look at the photo to the right. Is the paint deteriorated?

Yes! It is easy to determine many surfaces that are deteriorated. This training will help you identify deterioration that is much smaller than what you see here.

Should This Paint be Considered Deteriorated?

Ask this question. Is the paint, peeling, chipping, chalking, cracking, or damaged?

1. If the answer is YES, then the paint should be considered deteriorated.
2. If the paint is deteriorated, it must be repaired. Additionally, if the substrate is damaged it too must be repaired.

Note: You will not be asked to identify tack or nail holes, small hairline cracks or other surface imperfections that are stable. However, for areas larger than hairline cracks, you should consider the paint to be deteriorated.

Identify types of deterioration

There are many types of deterioration. Below is a list of the types of deterioration you will learn about.

- Peeling
- Chipping
- Chalking
- Cracking
- Holes in walls
- Damaged substrates

In addition to looking for deteriorated paint, remember that you should look for debris from deteriorated paint.

Peeling

Peeling paint is always considered to be deteriorated

- Peeling paint is often caused by moisture or poor preparation of the surface before painting.
- This may affect small or large areas

Chipping

All chipping paint should be considered to be deteriorated.

- Chipping often is a result of impact to the painted surface
- Chipping paint may be poor surface preparation or paint failure

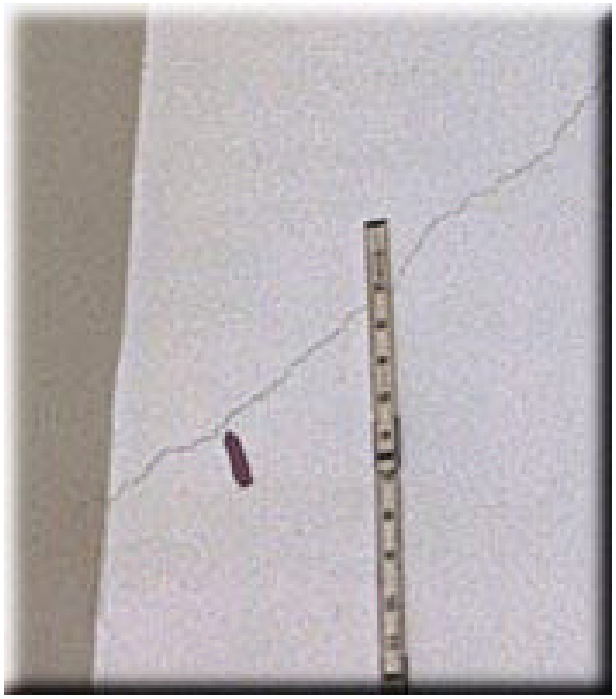
Chalking

Some paints were designed to chalk as a method to keep paint surfaces clean. If these paints contain lead, the chalking will also contain lead.

You should consider chalking paint to be deteriorated if you can see evidence of chalking on the surfaces below the paint or on the ground.

Cracking

Before you call a crack deterioration, you should determine if the crack is below the de minimis level. The photo to the right shows an example of what cracking looks like.



Cracking (continued)

- This photo shows a different form of cracking on a column base.
- This paint may start chipping soon.
- This type of cracking is considered deteriorated paint and must be repaired.

Cracking (continued)

- Settlement cracks are often seen in older homes
- If a settlement crack shows signs of deterioration (cracking or flaking of the painted surface) the painted surface should be considered deteriorated.

Holes in walls

All holes in walls **larger** than nail holes or tack holes are considered to be deteriorated and should be repaired.

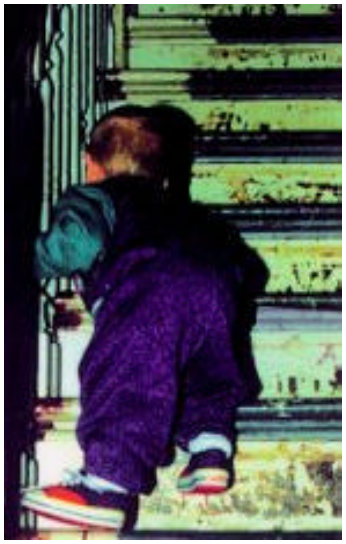
Nail and tack holes are not usually classified as deteriorated because:

- They are too small to meet de minimis levels
- The substrate is usually stable

Damaged Substrates

These photos show evidence of substrate damage.

- The window sill has extensive moisture damage.
- The stair tread shows wear, tear, and deterioration.



Describe Causes of Deterioration

While understanding common causes of paint deterioration will help you identify areas with problems, it is essential to understand the cause of the damage to repair the paint. You should look for the cause of the damage! Below are the causes of deterioration you will learn about.

- Moisture damage
- Friction and impact
- Poor surface preparation

Moisture Damage

All painted surfaces damaged by moisture should be considered deteriorated. You should look for the source of the moisture.

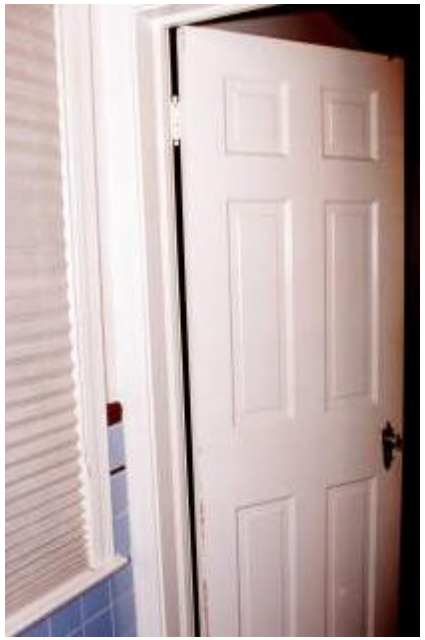
Stabilizing the paint requires three actions

1. Fix the cause -- If you don't, the surface repair will not last
2. Repair the surface
3. Repaint

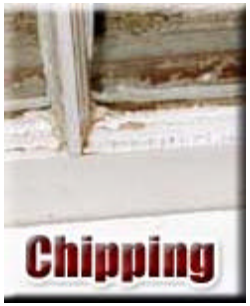
Friction and Impact

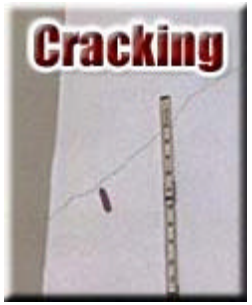
Friction and impacts cause paint to deteriorate

- Most paint was not designed to resist friction
- Windows or doors are key areas to look for friction and impact damage



In Summary, Deteriorated paint is:





Stabilize Deteriorated Paint

Once you have identified deteriorated paint, it must be repaired. It is the responsibility of the property owner to:

- Protect the residents and their belongings
- Repair substrate damage
- Repair the paint
- Conduct cleanup
- Other LBP-related concerns
- Obtain clearance (if deteriorated surface is more than the de minimis)

Repair Substrate Damage

Repairing substrate damage include problems such as:

- Dry rot
- Rust
- Other components that are not securely fastened
- Crumbling plaster
- Missing siding
- Moisture damage

Prior to repainting the surface of a damaged substrate, the cause of the damage must be repaired. The surface must be prepared to receive the new paint.

Repair Substrate Damage (continued)

- If the area is larger than the de minimis level, this preparation must include safe work practices:
  - ❑ Wet sanding or wet scraping
  - ❑ Protection of the worksite to keep lead dust from leaving the worksite or getting onto the resident's belongings
  - ❑ Cleaning of the worksite with HEPA vacuuming and detergents

Repair Substrate Damage (continued)

- If the area is smaller than the de minimis level, this preparation should include:
  - ❑ Surface preparation (wet sanding or scraping is still recommended to minimize the release of dust)
  - ❑ Cleanup using conventional cleaning methods
  - ❑ The key to the preparation is to minimize the amount of dust released

Other LBP-Related Concerns

In addition to deteriorated paint, you should look for paint chips or other paint debris. If you see any evidence that work was performed but not cleaned up, you should ask the property owner to clean up the debris.

- This cleanup should include misted sweeping and damp mopping to remove dust and debris
- Cleaning work areas will help reduce the risk of lead poisoning.

Obtain Clearance

A clearance exam might be required once the paint is stabilized.

1. Clearance examinations include both a visual investigation to identify paint chips and/or dust in the worksite and the collection and analysis of dust-lead samples.
   - Dust-lead samples are collected using a dust wipe of floor and window surface
2. Clearance sampling must be performed by an individual who is **authorized by** the EPA regulations
   - Lead-based paint inspectors, risk assessors, and sampling/clearance technicians may conduct a clearance examination.
   - The Lead Listing provides the names of firms which can provide clearance services. (1-888-LEADLIST or www.leadlisting.org)
3. If the area of paint which was stabilized exceeds the de minimis levels, a clearance examination must be performed in each worksite/area where the work was performed.
   - If the area did not exceed the de minimis levels, no clearance is required.

Review Question

Lead poisoning is the **greatest** threat to which of the following groups?

- ○ a) Young Children
- ○ b) Construction Workers
- ○ c) Adults 25 - 35
- ○ d) Adults 50 - 60

Answer: a)

Review Question

Some deteriorated paint does not need to be repaired because it covers such a small area.

- ○ a) True
- ○ b) False

Answer: b)

Review Question

Paint stabilization is as simple as a little sanding and repainting.

- ○ a) True
- ○ b) False

Answer: b)

Additional Resources

If you have any questions about this training or about conducting visual assessments:

- Call the HUD Office of Lead Hazard Control
  (202) 755-1785 x104
- E-mail to Lead_Regulations@hud.gov

Congratulations! You have completed the **Visual Assessment Training Course**.

To receive a copy of your course completion notice, e-mail your name, organization, phone, fax and e-mail address to matthew_e._ammon@hud.gov or fax this information to 202-755-1000, attention: Matt Ammon. You will be mailed your completion notice.