Lead Safety for Remodeling, Repair, and Painting
June 2003

This course was a joint effort of the U.S. Environmental Protection Agency's Office of Pollution Prevention and Toxics, in partnership with the U.S. Department of Housing and Urban Development's Office of Healthy Homes and Lead Hazard Control. The course was developed by ICF Consulting under contract with EPA. Special thanks to the Environmental Management Institute for their contribution to the hands-on exercises.

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THE CITY OF SAN DIEGO
ENVIRONMENTAL SERVICES DEPARTMENT
Lead Safety for Remodeling, Repair, and Painting
Sponsored by:
City of San Diego
Lead-Safe Neighborhoods Program &
U.S. Environmental Protection Agency
LEAD SAFE NEIGHBORHOODS
EPA United States Environmental Protection Agency

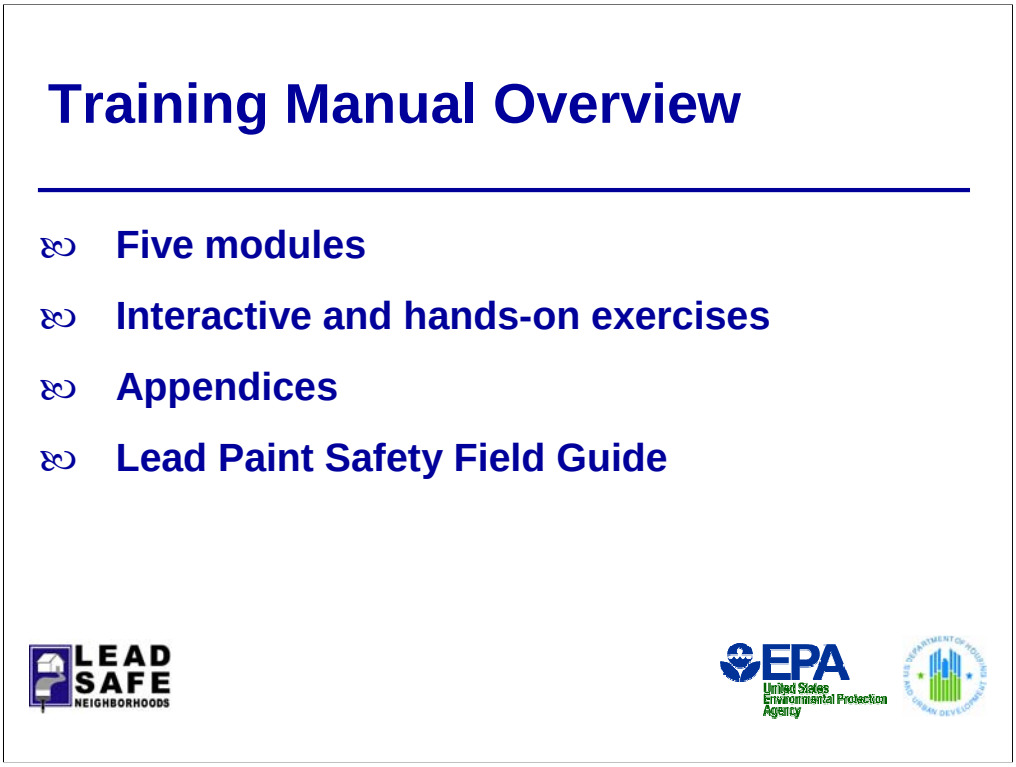
Introductions

- **In less than 1 minute please tell us:**
  - Your name
  - Company you work for
  - What you want to learn in this course
  - Do you currently use lead-safe work practices?

ICE BREAKER QUIZ

Introduction Overview

- Introductions
- Course objectives
- Course manual
- Course agenda



Modules

In addition to this Introduction and Welcome, there are five modules in this course:

- Module 1 Why Should I Be Concerned About Lead Dust? **(1 hour)**
- Module 2 Set-up Your Work Space to Contain Lead Dust **(1 hour)**
- Module 3 Safe Work Practices **(1 hour)**
- Module 4 clean up and Check Your Work **(1 hour)**
- Module 5 Planning the Work **(1/2 hour)**

Activities and Exercises

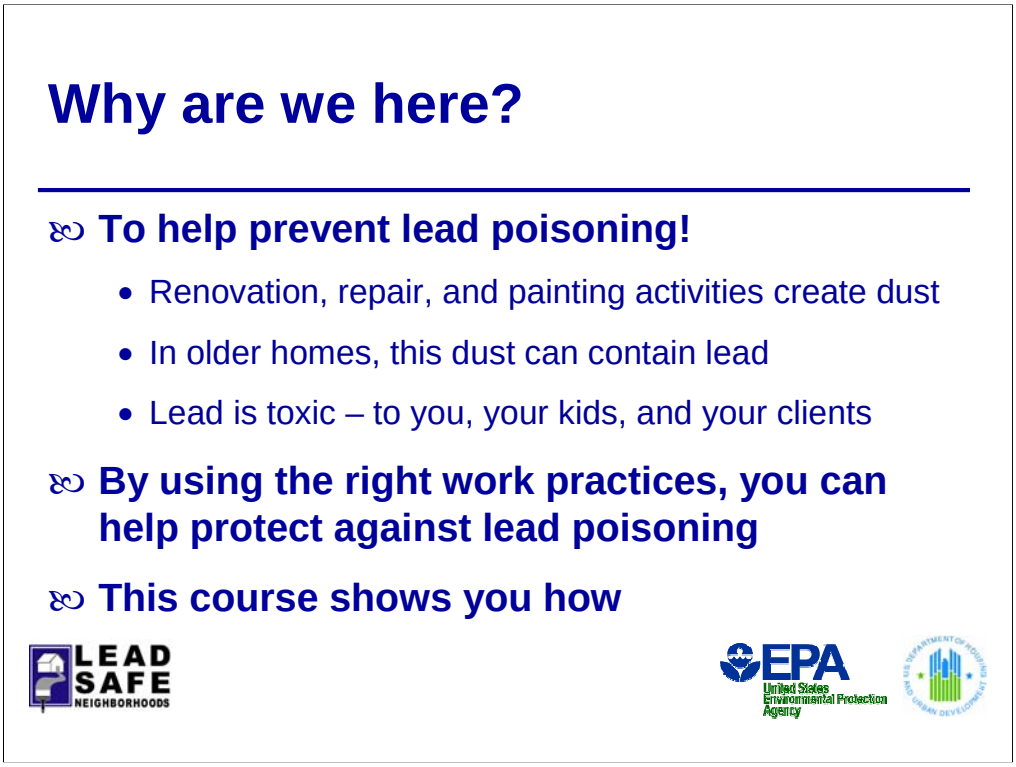
- The course includes activities and exercises to help you identify methods of reducing the amount of dust you create, and containing and cleaning up the dust you created. Many of the exercises and activities take place in small groups, so you will have an opportunity to share your experiences and ideas with others in the class.

Appendices

- As indicated in the Table of Contents, this manual has several appendices that provide extra information that will help contractors.

Field Guide

- This manual also provides you with a copy of the *Lead-Based Paint Safety Field Guide* in Appendix 8. This handy Field Guide is easy to use and has illustrations of suggested methods for reducing, containing, and cleaning up dust in work areas. Take it with you to work.



Why are we here?

- Many commonly used work practices generate a lot of dust.
- Practical changes in work practices can minimize and contain dust.
- Minimizing and containing dust saves clean-up time and customers value cleaner, less dusty job sites.

The Value of this Training

- This course meets HUD requirements for interim controls / lead safe work practices training.
- Completing this training demonstrates your company's competence to prospective clients and can be a marketing advantage that distinguishes your company from the competition.

Lead abatement training

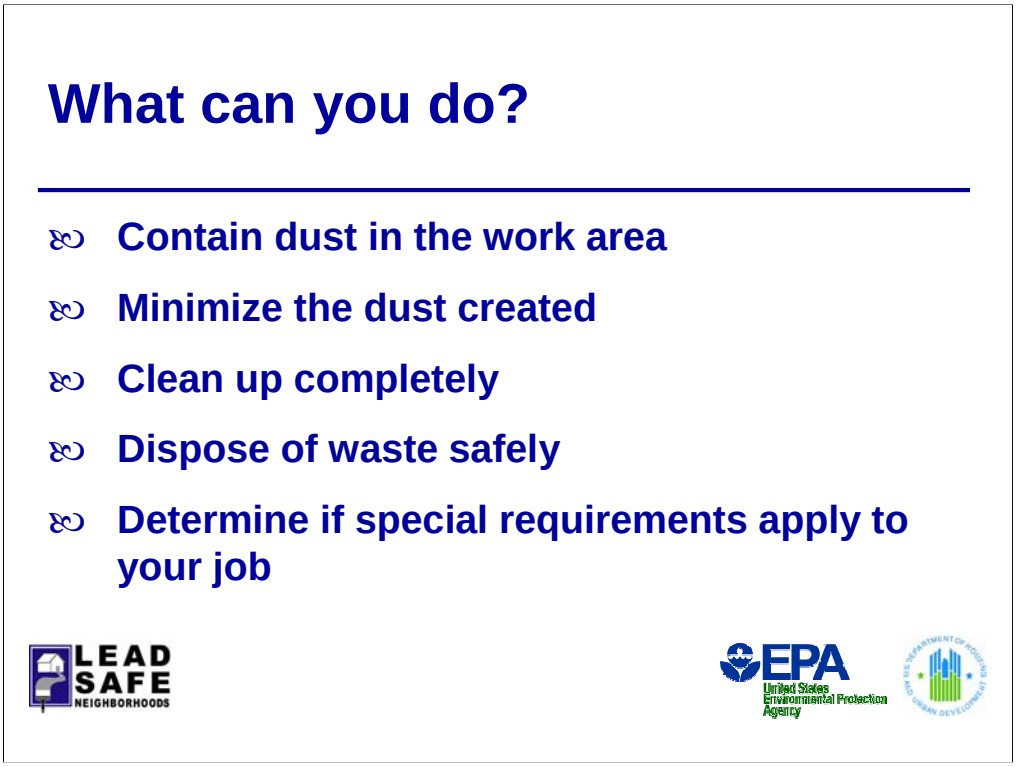
- Lead abatement refers to work that is done for the specific purpose of permanently removing lead-based paint hazards from a home. This type of work requires special training that is not provided by this course.

OSHA

- Federal OSHA and Cal/OSHA have training requirements for workers that employers should be aware of. For more information on federal OSHA requirements, visit www.osha.gov/Publications/osha3142.pdf and for information on Cal/OSHA requirements visit their website at www.dir.ca.gov/DOSH/dosh1.html.

State, Local, and Tribal Requirements

- Many localities have their own lead-based paint requirements, including specific training and certification requirements. Check with the State Department of Health Services at their website www.dhs.ca.gov/childlead, for more information and with the City of San Diego Lead Safe Neighborhoods Program (858) 627-3307 for information on local requirements. If you work with tribal housing and other environmental agencies please contact them directly to obtain information about any additional requirements.



What can you do?

There are five key steps to take during work that will help reduce the risk of lead poisoning. You should plan your job so all of these steps can be performed properly.

1. **Contain the dust.** You will learn how to close off the area you are working in to keep the dust inside the work area and away from the rest of the house. (We'll talk about this in detail in Module 2.)

2. **Minimize the dust.** You will also learn about tools and techniques for creating less dust while you work. (Module 3.)

3. **Clean-up.** This course will teach you how to clean your work area so that no dust is left behind. (Module 4)

4. **Dispose of waste.** This course will tell you how to properly dispose of waste from jobs with lead waste (Module 4).

5. **Determine special requirements.** Some jobs require that you use the work practices in this course. Other jobs require additional training. See the next slide for more detail.

Jobs where Lead Safety is important!

Unless testing by a State Certified Lead Inspector Assessor indicates the level of lead are determined to be negative, lead safe work practices must be utilized for:

- Jobs being done in pre-1978 private housing.

- Jobs in pre-1978 housing that receives Federal, State, local, or tribal assistance. There may be specific requirements that apply to these jobs that are important to know when planning the work. To find out about if there are requirements and what must be done to meet them, ask for guidance from the public agency providing the housing assistance

- Housing where lead abatement is required. Abatement refers to work that is being done specifically with the intent to permanently control known lead-based paint. When the work to be done involves lead abatement, there are specific requirements, qualifications, and licensing needed to properly perform this work. Additional training beyond this course is needed and the supervisor must be certified. If a project requires abatement, advise the property owner that he or she will need an abatement firm to perform those parts of the job.

- Any structure, or steel structure

Note: The lead safe work practices taught in this course are also appropriate for any child-occupied facilities, such as schools and day care centers.

Module 1
Why Should I Be Concerned About Lead Dust?

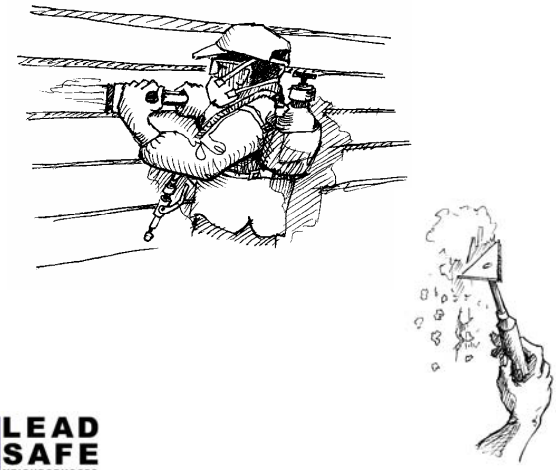
Module 1 Overview

- Why is lead-contaminated dust a problem?
- Health risks and effects of lead?
- What is lead-based paint?
- How many homes contain lead-based paint?
- What is being done about lead-based paint?
- Summary

Upon completion of this module, you will be able to explain:

- Why we are concerned with lead-contaminated dust
- The health risks of lead to children and adults
- What the government is doing about lead-based paint and what you can do to help

How do we create dust?



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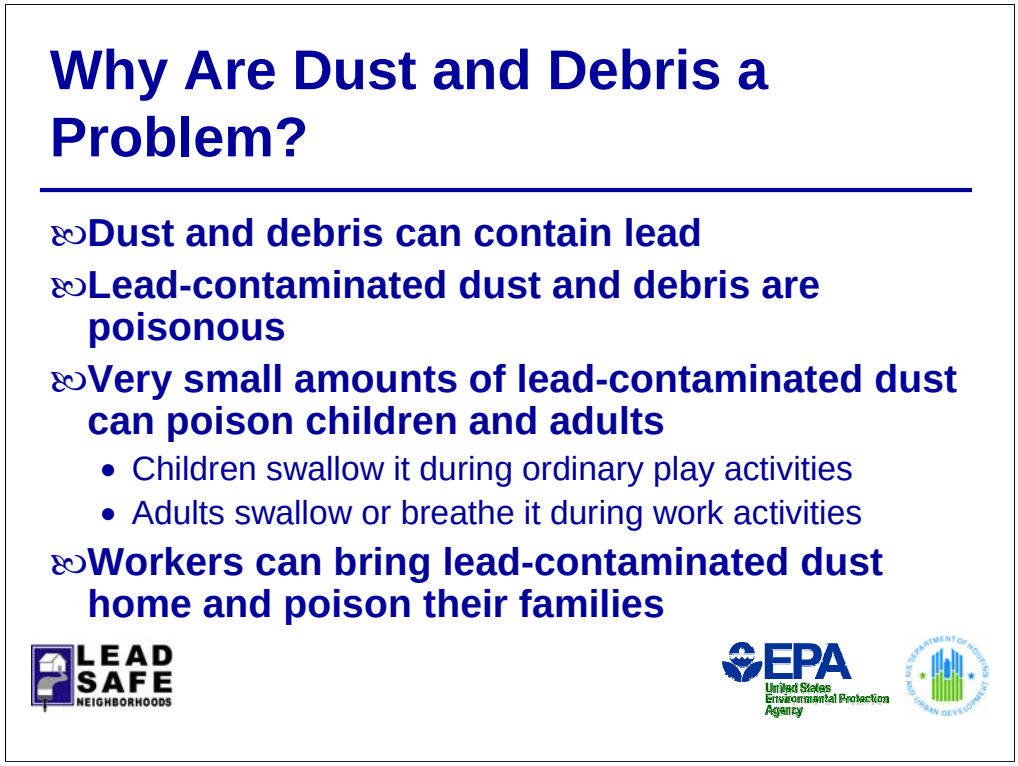
Note the things that you commonly do during a job that create dust.

A little dust goes a long way.

- **You can't see it.** Even a floor that looks clean can have lead dust. Only a laboratory test can tell you for sure if an area is contaminated with lead.
- **It's hard to sweep up.** Normal cleaning methods will not pick up all the lead in a work area. Sweeping is not enough. You need to clean with water, detergent, and a HEPA-filtered vacuum to clean up effectively.
- **It travels.** Once the lead is released, it is easily tracked out of the work area. An exterior painting job can contaminate the inside of a home as the dust, chips, and leaded soil are tracked inside.



Dust and debris from renovation, remodeling, repair, and painting jobs in pre-1978 housing may contain lead

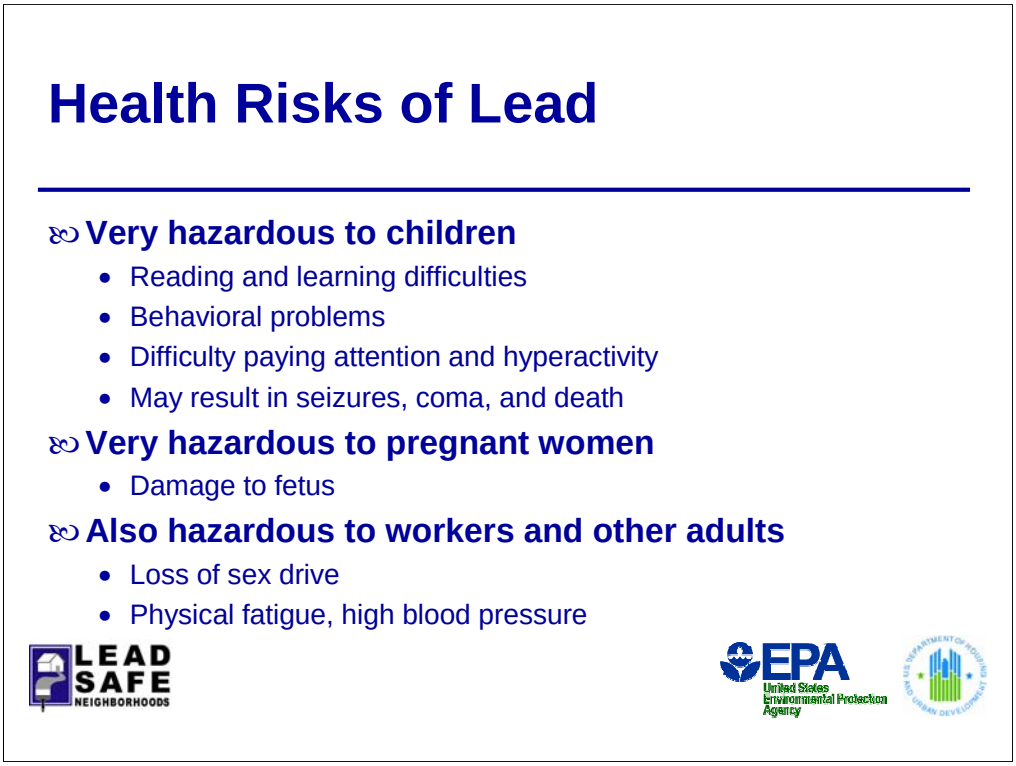
- Pre-1978 paint may contain lead.
- Renovation, repair, and painting jobs disturb paint that may contain lead. Any activity involving surface preparation, such as hand-scraping, power sanding, the use of heat guns, and open flame burning, can generate lead dust or fume. More complicated tasks such as removing building components and demolishing walls also can create a lot of dust.

Small amounts of lead-contaminated dust can poison

- A tiny amount of lead can be extremely harmful.
- Lead particles are often so small that you cannot see them, and yet you can breathe or swallow them. Smaller dust particles that are inhaled or swallowed are more easily absorbed by the body than larger particles, and can therefore cause poisoning more easily.

Lead-contaminated dust is dangerous to children and adults

- Lead particles in dust or fumes may be breathed or swallowed by children, residents, and workers.
- Through normal hand-to-mouth activities, children may swallow or inhale dust on their hands, toys, food, or other objects. Children may also ingest paint chips.
- Adults can swallow or breathe dust during work activities.
    - When workers perform activities such as scraping and sanding by hand or use a power sander or grinding tool, it creates dust. These particles get into the air that they breathe.
    - If workers eat, drink, smoke, or put anything into their mouths without washing up first, they may swallow lead.



Children, particularly children under six, are most at risk from small amounts of lead

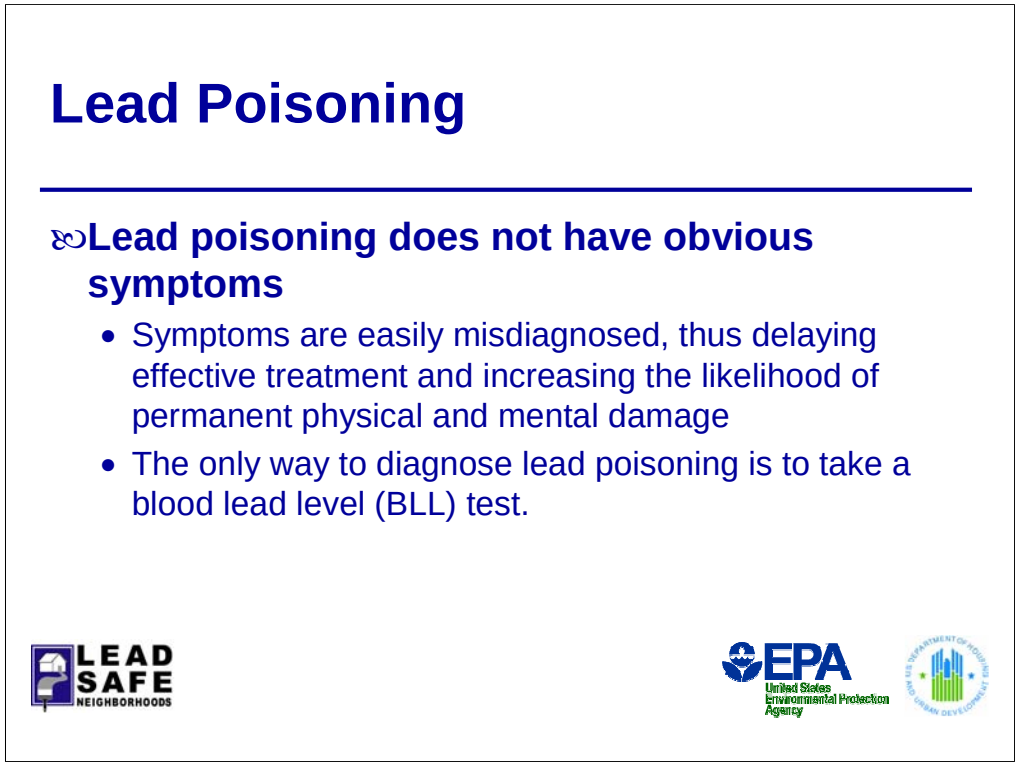
- Children are at a greater risk than adults because, during normal and frequent playing or hand-to-mouth activity, children may swallow or inhale dust from their hands, toys, food, or other objects.
- In children, lead can cause:
  - Nervous system and kidney damage.
  - Learning disabilities, attention deficit disorder, and decreased intelligence.
  - Speech, language, and behavior problems.
  - Poor muscle condition.
  - Decreased muscle and bone growth.
  - Hearing damage.

Among adults, pregnant women are especially at risk from exposure to lead

- Changes in a woman's body during pregnancy may cause lead stored in her bones to be released into her blood.
- Lead can then be passed from the mother to the fetus. Lead poisoning can cause:
  - Miscarriages
  - Premature births
  - Low birth weight

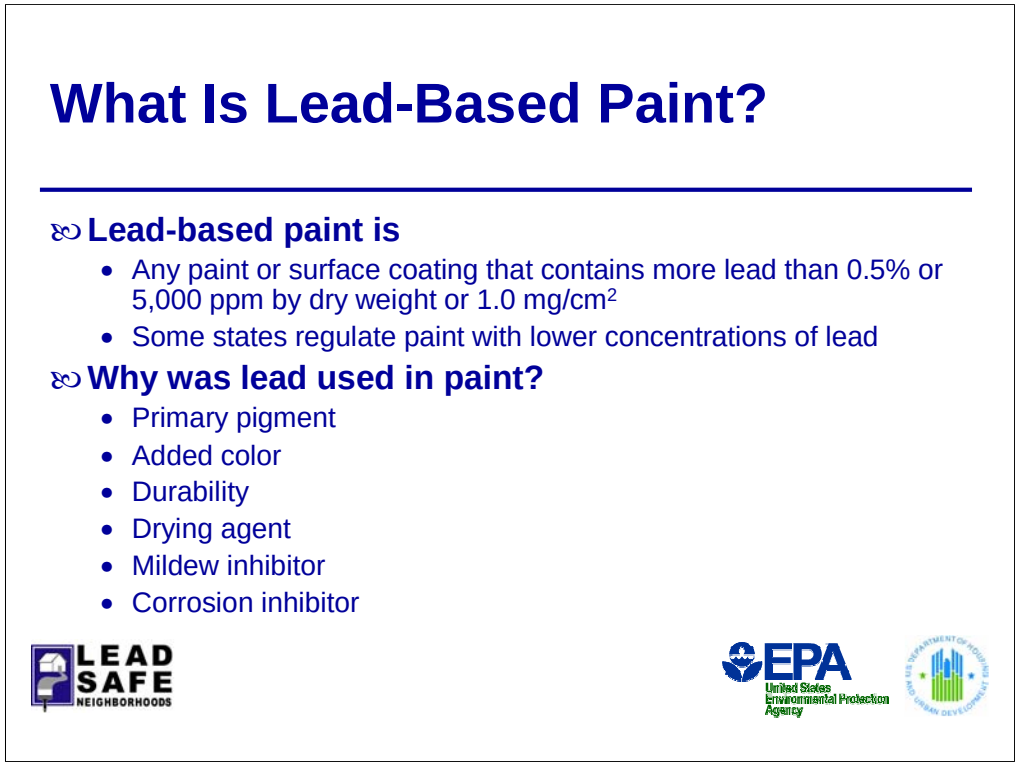
Health effects of lead in adults include

- Fertility problems in men and women.
- High blood pressure.
- Digestive problems.
- Nerve disorders.
- Memory and concentration problems.
- Muscle or joint pain.



Lead poisoning does not always have obvious symptoms

- Lead poisoning often has no obvious symptoms, so symptoms are frequently attributed to other causes.
- Specific symptoms that people with lead exposure sometimes complain of include:
  - Headache
  - Stomach ache
  - Irritability
  - Fatigue
  - Loss of appetite
  - Pain in joints
- Because many symptoms are vague or similar to flu symptoms, parents may not get immediate medical attention for their children. This is critical for young children. The longer lead remains in the body of a young child, the higher the risk of permanent damage.
- The best way to determine if lead is present in the body is by testing a person's blood.
- We measure the amount of lead in blood by ☞g/dl, a very small unit of measurement. The Centers for Disease Control has designated 10 ☞g/dl a "level of concern" but even lower levels may be harmful.



Lead-Based Paint

- Lead-based paint is any paint or other surface coating that contains lead equal to or greater than than 0.5 percent or 5,000 parts per million by weight or 1.0 milligram per square centimeter (mg/cm^2) as measured by laboratory analysis or X-ray fluorescence (XRF).
- Paint with concentrations of lead lower than the standard definition above can still cause health problems.

Some states regulate paint with lower concentrations of lead

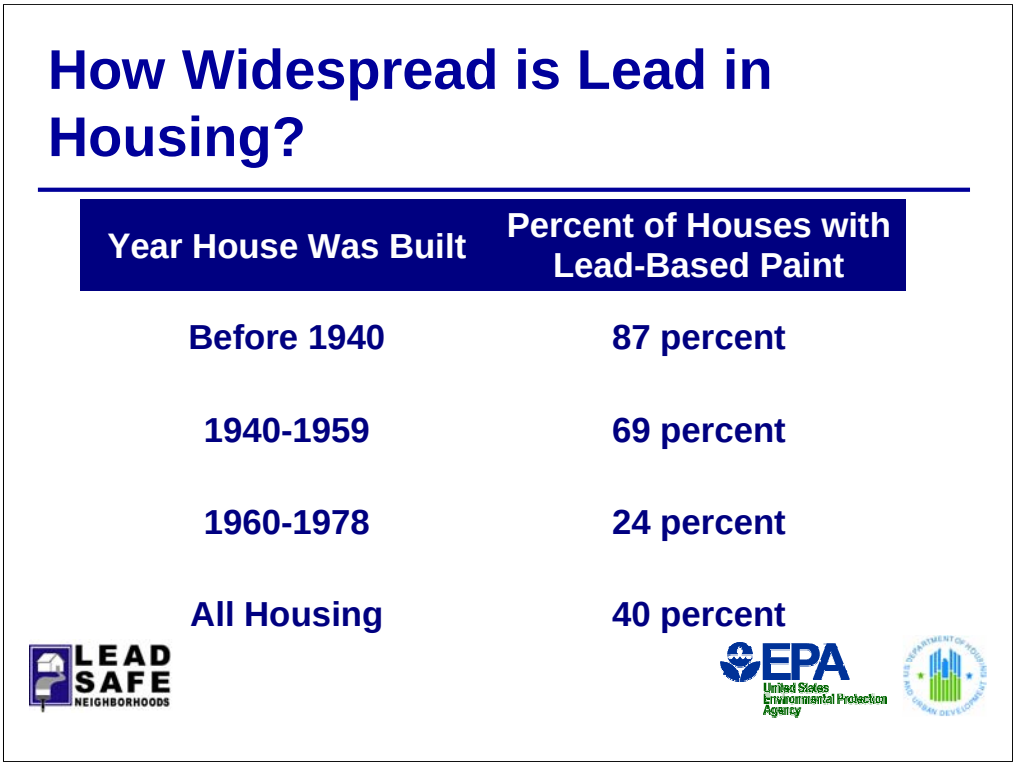
- You should check with your state health department to see if the state has requirements that are more stringent than the Federal requirements.

Why was lead added to paint?

- Lead was added to paint for color and durability. Lead-based paints stood up to wear and tear, temperature and weather changes, and resisted mold and mildew in moist areas.
- Before the 1950's concentrations of lead in paint were as high as 50 percent by weight. From about 1950 to 1973, the concentration of lead in paint was reduced as other pigment materials became more popular.
- In addition to being added to paint, lead was added to all surface coatings.

Lead-based paint was banned from residential use in 1978

- In 1978 the Consumer Products Safety Commission banned the sale of lead-based paint for residential use. In practice, this means that homes built in 1978 could still have used lead-based paint because existing supplies of paint containing lead would still have been available.



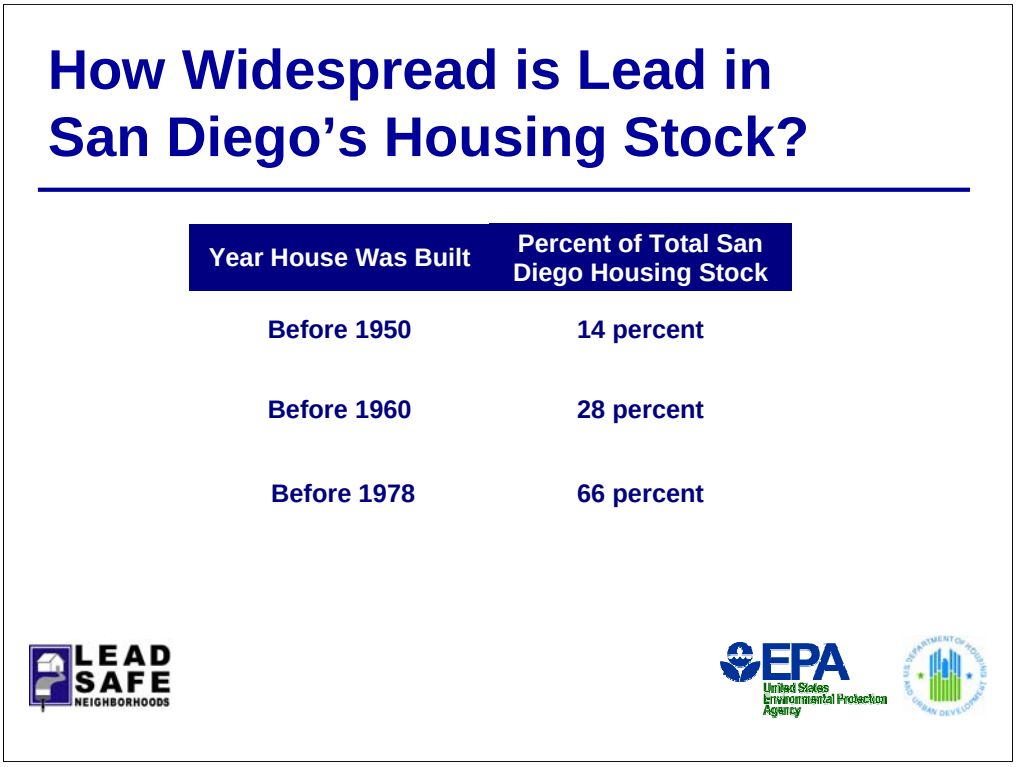
- **Source of data in table above:** *HUD Report on the National Survey of Lead-Based Paint in Housing,* 2001.

Homes built in 1978 and earlier

- Approximately 38 million pre-1978 housing units may contain paint that meets the Federal definition of "lead-based paint" (Source: *HUD Report on the National Survey of Lead-Based Paint in Housing,* 2001).
- Play it safe. You should assume that any house built in 1978 or earlier contains lead-based paint unless the house has been tested for lead and the results indicate that the house does not contain lead-based paint.
- Components most likely to have lead include windows and doors (interior and exterior) as well as outside walls and porches.

Homes built before 1960

- Homes built before 1960 are more likely than homes built after 1960 to contain higher concentrations of lead and to have deteriorated paint surfaces. In the 1950's paint companies began to use less lead.



- **Source of data in table above:** *HUD Report on the National Survey of Lead-Based Paint in Housing,* 2001.

Homes built in 1978 and earlier

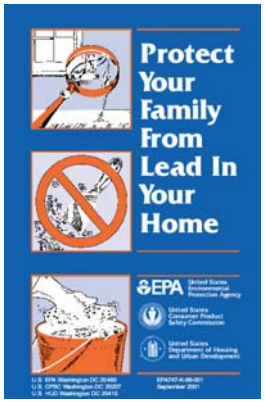
- Approximately 668,476 pre-1978 housing units in San Diego may contain paint that meets the Federal definition of "lead-based paint" (Source: *U.S. 2000 Census Report*).
- Play it safe. You should assume that any house built in 1978 or earlier contains lead-based paint unless the house has been tested for lead and the results indicate that the house does not contain lead-based paint.
- Components most likely to have lead include windows and doors (interior and exterior) as well as outside walls and porches.

Homes built before 1960

- Homes built before 1960 are more likely than homes built after 1960 to contain higher concentrations of lead and to have deteriorated paint surfaces. In the 1950's paint companies began to use less lead.

What Is Being Done About Lead?

- **Ban in Residential Housing**
  - Lead-based paint was banned from residential use in 1978
- **Pre-Renovation Education Rule**
  - Contractors must distribute a pamphlet (See Appendix 5).
- **Disclosure Rule**
  - Buyers/renters receive information about lead in their homes
  - They can share this information with contractors



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Lead-based paint was banned from residential use in 1978

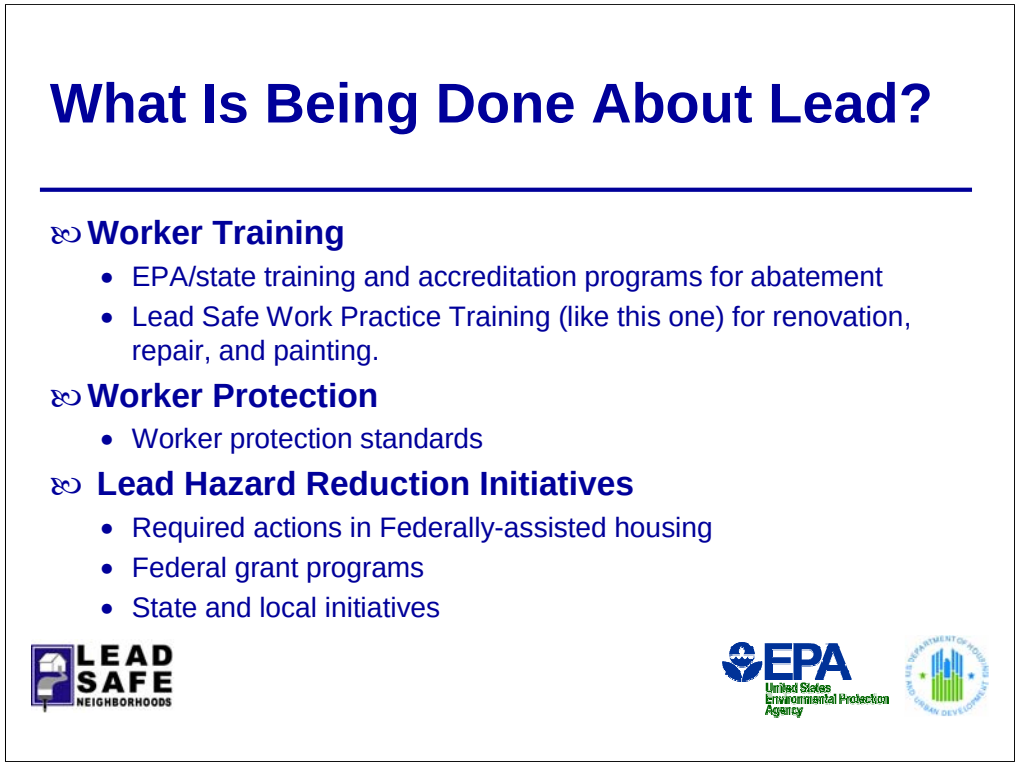
- This means that homes built after 1978 are unlikely to have lead-based paint in them. Some states may have banned it earlier.

Pre-Renovation Education Rule (PRE)

- This EPA regulation requires that contractors distribute a lead hazard information pamphlet to residents of pre-1978 housing before they begin any renovation or remodeling activities. For copies of the required lead information pamphlet, *Protect Your Family from Lead in Your Home*, call the National Lead Information Center at 1-800-424-LEAD. Note: The pamphlet is available in English, Spanish, and Vietnamese.
- The PRE requires written acknowledgment from the client that he or she has received the pamphlet. Alternatively, the contractor can send the pamphlet by certified mail. Contractors should keep this documentation in their files.
- The PRE does not apply to non-residential dwellings, child-occupied facilities, dorm rooms, studios, or housing for the elderly.
- The PRE does not apply to jobs that involve less than 2 sq. ft. of paint per component.
- **Appendix 5** has additional information on the PRE, its requirements, and its exemptions.

Disclosure Rule

- HUD and EPA's disclosure rule requires sellers and landlords to provide the same pamphlet that the PRE does (*Protect Your Family from Lead in Your Home*) and to tell prospective buyers and renters about any known lead-based paint and/or hazards in the dwelling. Because of the disclosure rule, your client may have some information about lead in his/her home. Ask for it.



Worker Training

- State has training requirements for people involved in lead abatement (i.e., the permanent removal of lead). Today's course does not qualify you to perform abatement.
- This training is one of several trainings on Lead Safe Work Practices. It trains you to work safely with lead in standard renovation jobs and it also qualifies you to work in Federally assisted housing or Federally owned housing being sold, as described below.

Worker Protection

- Cal/OSHA has a lead in construction standard which outlines worker protection requirements found in Title 8 1532.1. Your employer should be aware of these. For more information, visit www.osha.gov/Publications/osha3142.pdf.

Lead Hazard Reduction Initiatives

- If you work in Federally assisted housing, certain actions are required to address lead hazards. In these cases, the workers must have proper training. See Appendix 3 for more information on the Federal requirements for worker training and lead hazard reduction in federally assisted housing.
- HUD has a grant program to state and local governments for funding lead hazard reduction activities.
- Check with your states and localities to find out if there are any local programs (which may be State or Federally funded) that are designed to address lead hazards.

CA Department of Health Services 17 CCR 35001, (Title 17 - Appendix 12)

- Identifies that only state certified professionals shall perform permanent lead abatement in public and residential buildings
- Identifies basic lead-safe work practices to be used in abatement
- Defines lead hazards

California Regulations Governing Lead-Safe Work Practices

- This course meets HUD requirements for interim controls / lead safe work practices training. It does NOT meet California's minimums for performing permanent lead abatement.

Lead abatement training

- Lead abatement refers to work that is done for the specific purpose of permanently removing lead-based paint hazards from a home. This type of work requires special training that is not provided by this course.

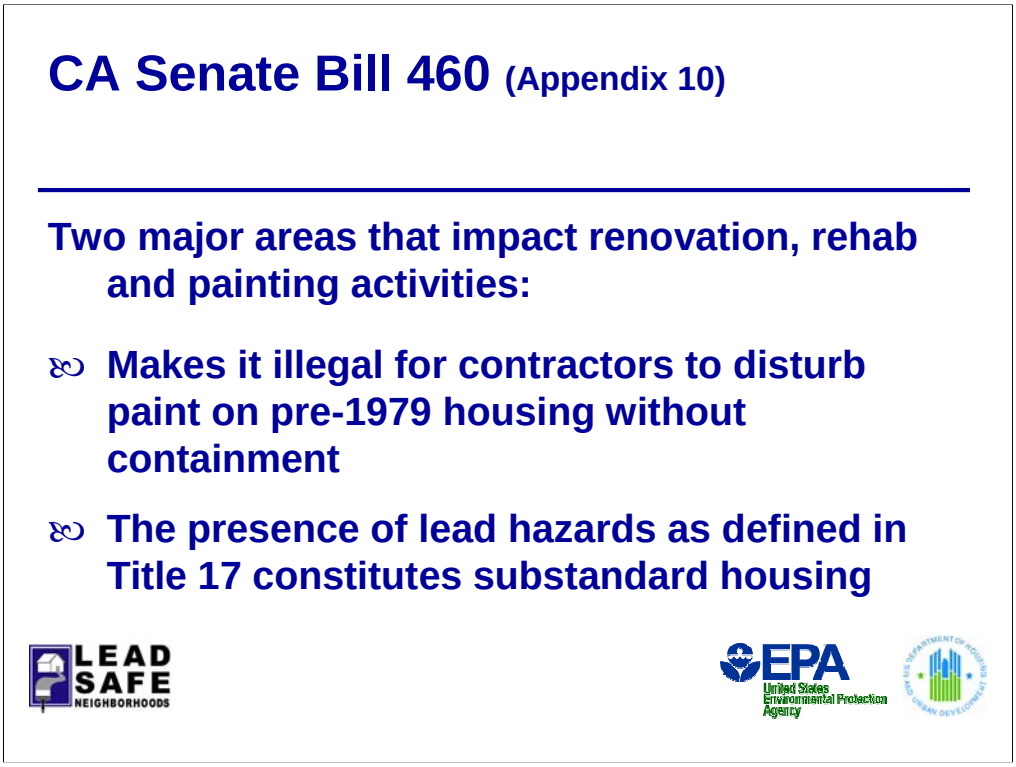
17 CCR §36100. Requirements for Abatement for Public and Residential Buildings.

(a) Abatement for public and residential buildings which is designed to reduce lead paint or lead hazards for a minimum of twenty years shall be conducted:

(1) Only by a certified lead supervisor or a certified lead worker. A certified lead supervisor shall be onsite during all work site preparation and during the post-abatement cleanup of work areas. At all other times when abatement is conducted, the certified lead supervisor shall be onsite or available by telephone, pager or answering service, and able to be present at the work area in no more than two hours.

17 CCR §35037. Lead Hazard.

"Lead hazard" means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure. Presumed lead-based paint is defined as any untested paint or surface coating on all structures built before 1/1/1978.



California Regulations Governing Lead-Safe Work Practices – SB 460

- SB 460 was enacted on January 1, 2003 and is being enforced in the City of San Diego by a number of city agencies.
- SB 460 makes it illegal to create a lead hazard or to have a condition that is a lead hazard in residential and public buildings. Enforcement agencies can inspect work sites and issue orders to abate or correct lead hazards or cease and desist activities that create a lead hazard (such as dry sanding or scraping, failing to protect the work area, and power washing or abrasive blasting surfaces containing lead-based paint without environmental protections). Any person who fails to comply with an order is subject to fines of up to $1,000 per violation. (See SB 460 Sections 8 and 9, or Health & Safety Code Sections 105255 and 105256 for more details.)

17 CCR §35037. Lead Hazard.

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City of San Diego (Appendix 11)

Lead Hazard Prevention and Control Ordinance

- **Uses language similar to California Health and Safety Code and makes it unlawful for a responsible person to allow a lead hazard to remain upon any premise, surface, dwelling, structure or appurtenance**
- **Unlawful for a responsible person to fail to reduce or eliminate a lead hazard**

Regulations Governing Lead-Safe Work Practices – San Diego's Municipal Code

§54.1004

Violation of this [section] may be prosecuted [and] subject to fines and custody . . . The Director may also seek injunctive relief and civil penalties in the Superior Court . . . or pursue any administrative remedy provided . . .

§54.1005

Violations of this Division shall be treated as strict liability offenses regardless of intent.

17 CCR §35037. Lead Hazard.

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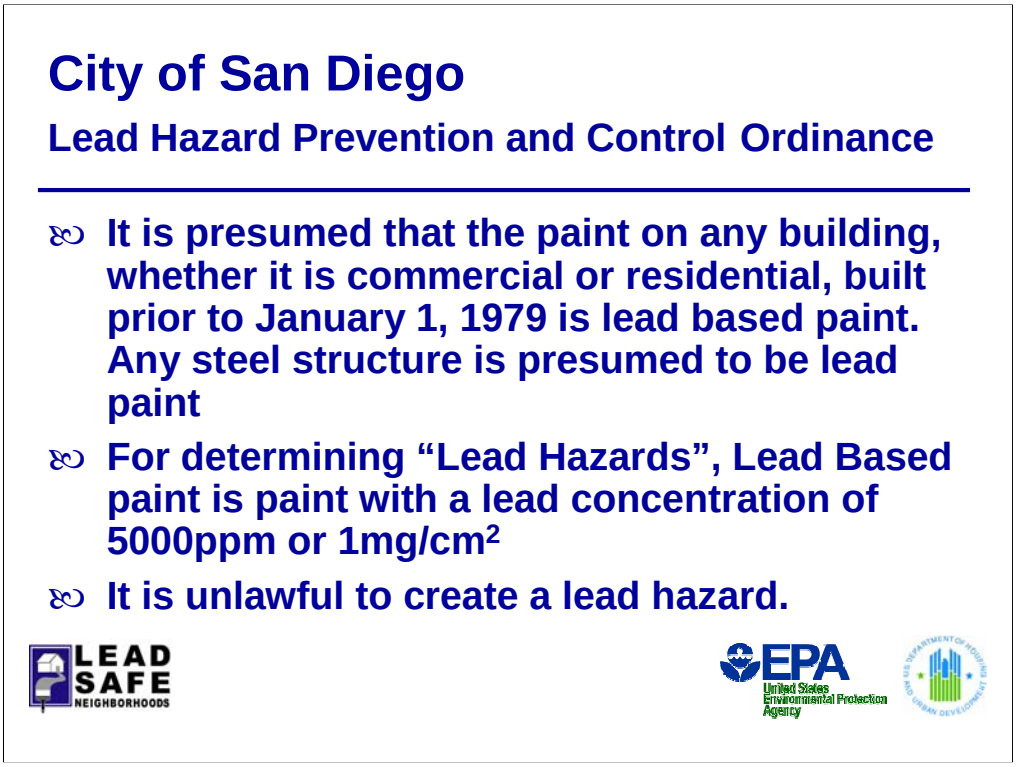
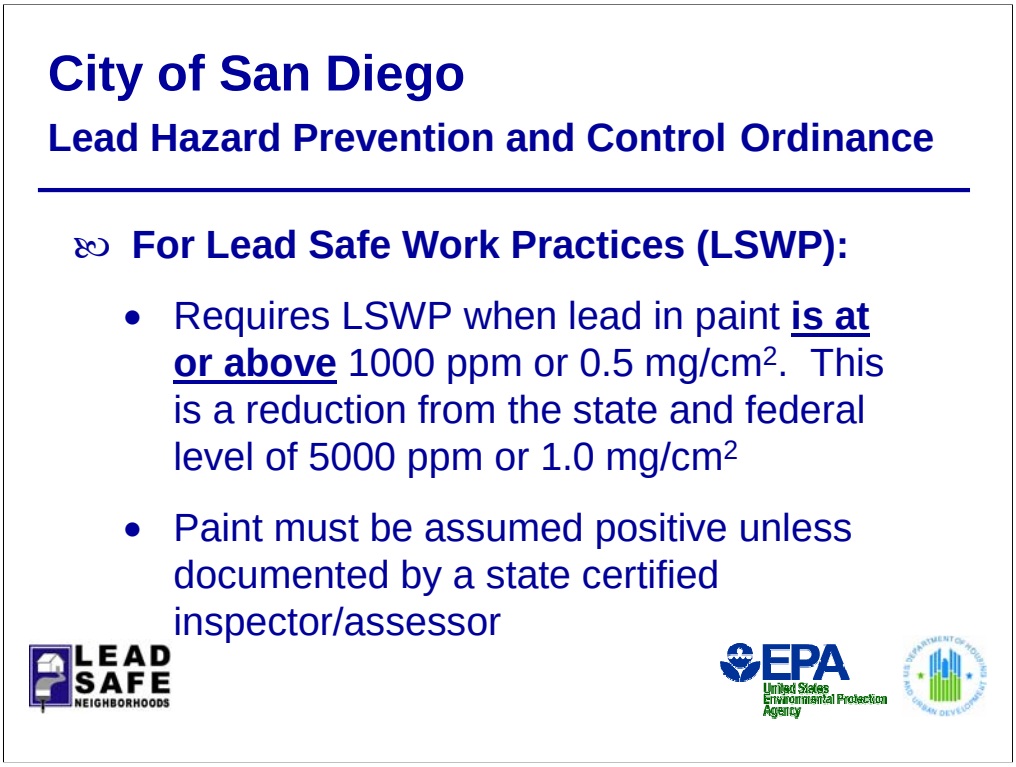


Regulations Governing Lead-Safe Work Practices – San Diego's Municipal Code

Lead based paint was banned in 1978. However, buildings as late as 1979 may have lead based paint due to the back stock that was present in the painting industry. If work is being performed on older buildings find out what year it was constructed if it was built before January 1, 1979 you must assume it is lead based paint unless otherwise proved by a Certified lead inspector/ assessor.

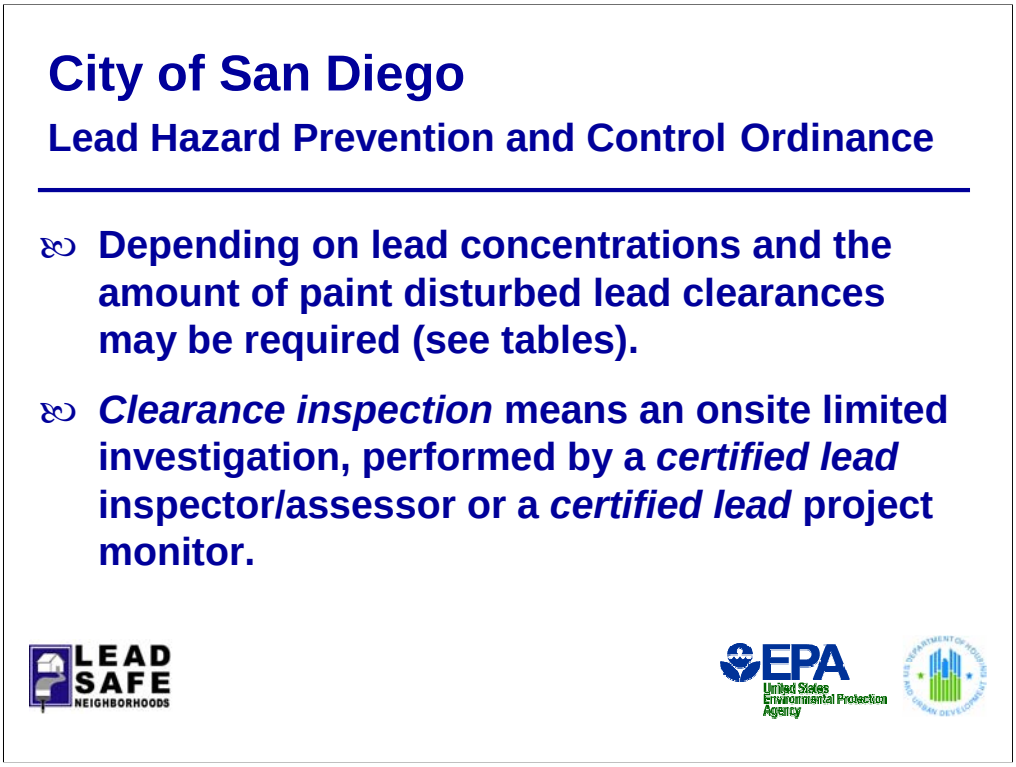
Lead hazard means: (1) the existence of *deteriorated paint* over a surface area larger than *de minimis levels* in the interior or *exterior* of a *dwelling unit* or *structure* constructed prior to January 1, 1979; or (2) the existence of *deteriorated paint*, in the interior or *exterior* of a *dwelling unit* or *structure* constructed prior to January 1, 1979, over a surface area smaller than *de minimis levels* but which, as determined by an e*nforcement official,* is likely to endanger the health of the public or the occupants of the *dwelling unit* or *structure*; or (3) the disturbance of *lead-based paint* or *presumed lead-based paint* without *containment barriers*; or (4) the creation or maintenance of any other condition which may result in persistent and quantifiable *lead* exposure; or (5) the presence of *lead-contaminated dust* or *lead-contaminated soil*.

De minimis levels means an area less than: (1) two square feet in any one interior room or space of a *dwelling unit* or *structure*; or (2) twenty square feet on an *exterior* surface; or (3) ten percent of the surface area on any component part, either interior room or space or *exterior,* with a small surface area such as a window sill, baseboard, or trim.



Regulations Governing Lead-Safe Work Practices – San Diego's Municipal Code

Any person who disturbs or removes paint from any surface in the interior or on the exterior of a dwelling unit or structure constructed prior to January 1, 1979, or from any surface on a steel structure shall use lead-safe work practice standards as set forth in section 54.1006, unless a Certified Lead Inspector/Assessor determines, prior to the commencement of activities which disturb or remove paint, that the concentration of lead in the paint is below 1000 ppm or 0.5 mg/cm2.



Regulations Governing Lead-Safe Work Practices – San Diego's Municipal Code

Refer to table A in the last pages of the city ordinance. There is a copy in the back of this book.

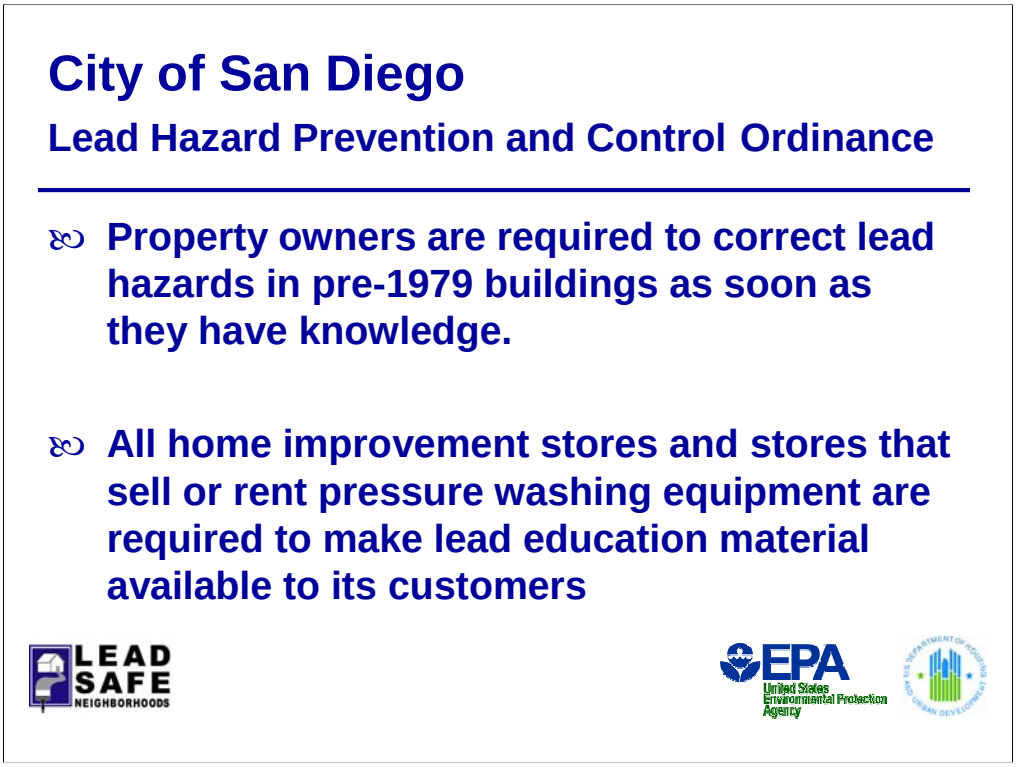
Clearance inspection must be performed by a California Department of Health Services Certified lead inspector/assessor or project monitor. After sampling has been performed and the area meets the lead clearance levels a 8552 form must be sent in for each project to both the State and the City.

City of San Diego

Lead Hazard Prevention and Control Ordinance

- **At a minimum, the supervisor must perform a visual inspection.**
- **A *renovator* shall record the results of the visual inspection on the form provided by the City of San Diego**

Contractor shall maintain the Visual Inspection form for a minimum of three years, and shall make all such forms available to the City of San Diego upon request.



17 CCR §35037. Lead Hazard.

"Lead hazard" means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure.

54.1003 Lead Hazard

Lead hazard means: (1) the existence of *deteriorated paint* over a surface area larger than *de minimis levels* in the interior or *exterior* of a *dwelling unit* or *structure* constructed prior to January 1, 1979; or (2) the existence of *deteriorated paint*, in the interior or *exterior* of a *dwelling unit* or *structure* constructed prior to January 1, 1979, over a surface area smaller than *de minimis levels* but which, as determined by an e*nforcement official,* is likely to endanger the health of the public or the occupants of the *dwelling unit* or *structure*; or (3) the disturbance of *lead-based paint* or *presumed lead-based paint* without *containment barriers*; or (4) the creation or maintenance of any other condition which may result in persistent and quantifiable *lead* exposure; or (5) the presence of *lead-contaminated dust* or *lead-contaminated soil*.

De minimis levels means an area less than: (1) two square feet in any one interior room or space of a *dwelling unit* or *structure*; or (2) twenty square feet on an *exterior* surface; or (3) ten percent of the surface area on any component part, either interior room or space or *exterior,* with a small surface area such as a window sill, baseboard, or trim.

City of San Diego

Lead Hazard Prevention and Control Ordinance

- **Child care facilities shall require a parent or legal guardian of each child between the ages of six months and seven years of age to obtain proof of blood lead testing. This is to be provided prior to admission but in no event no later than thirty days after admission.**

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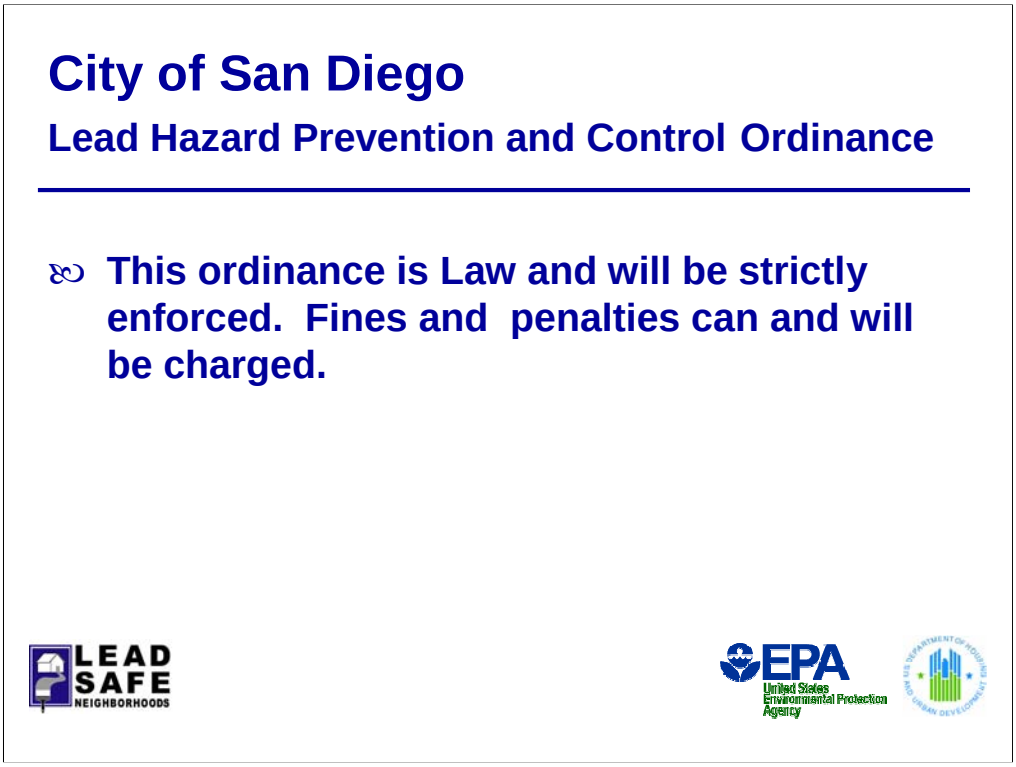
§ 54.1011 Child-Care Facility

Child-care facility means a facility that provides non-medical care for children less than 18 years of age in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual on less than a 24-hour basis. This includes day care centers and employer-sponsored child care centers.

Each *child-care facility* licensed or approved by the State of California, except for a *child-care facility* located on public school property, shall require a parent or legal guardian of each *child* between the ages of six months and seven years of age inclusive to provide a statement from a physician or health care provider that the *child* has been screened for *lead* poisoning. This statement must indicate that the screening of the *child* has been performed in accordance with applicable criteria mandated by the State of California. This statement shall be provided prior to admission, but in no event later than thirty days after admission. The *child-care facility* shall maintain the statement for three years after receipt and shall make such statements available to the City for review during normal operating hours upon request. Nothing in section 54.1012 shall be construed to require any *child* to undergo a blood *lead* level screening or test when the parent or guardian of the *child* objects on the grounds that the screening or test conflicts with his or her religious beliefs.



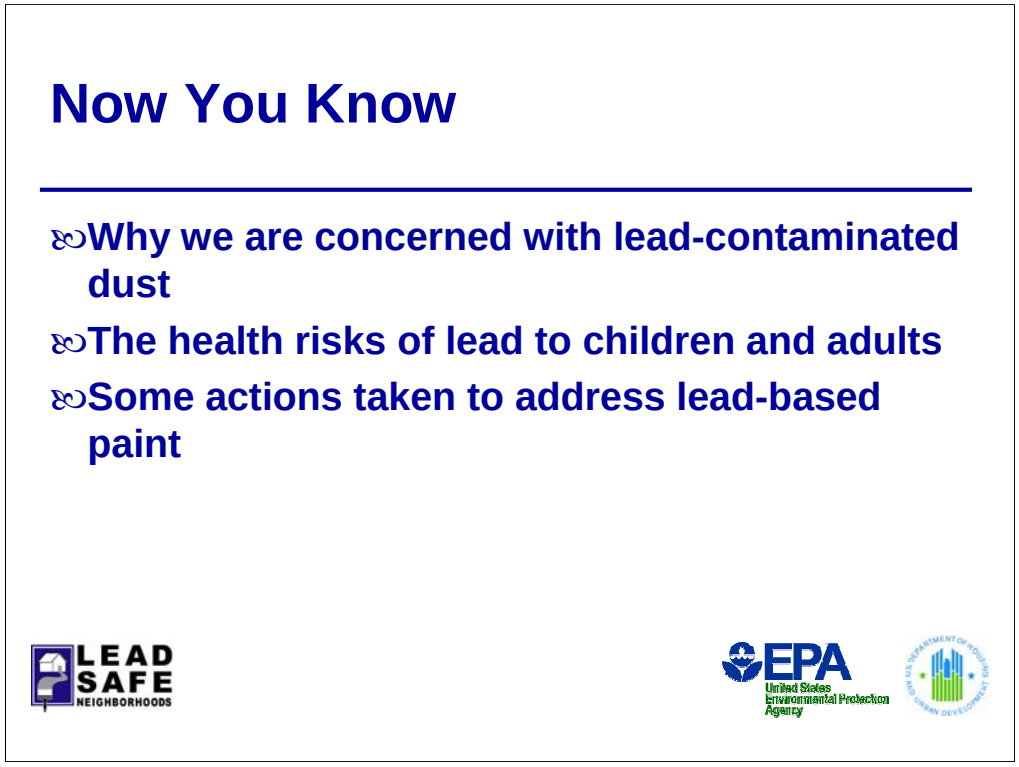
Regulations Governing Lead-Safe Work Practices – San Diego's Municipal Code

§ 54.1015 Strict Liability Offenses

Violations of Division 10 shall be treated as strict liability offenses regardless of intent. Ordinance became law on May 9, 2008

How do I work lead safe?

The rest of this course will discuss the practices you need to follow to work lead safe. Also see Appendix 1 for a helpful resource.



The modules in the rest of the course describe how proper set-up and containment, safe work practices, and clean-up techniques leave less lead-contaminated dust and debris than standard renovation, remodeling, and painting work practices.

Module 2
Set-Up Your Workspace to Contain Lead Dust

Module 2 Overview

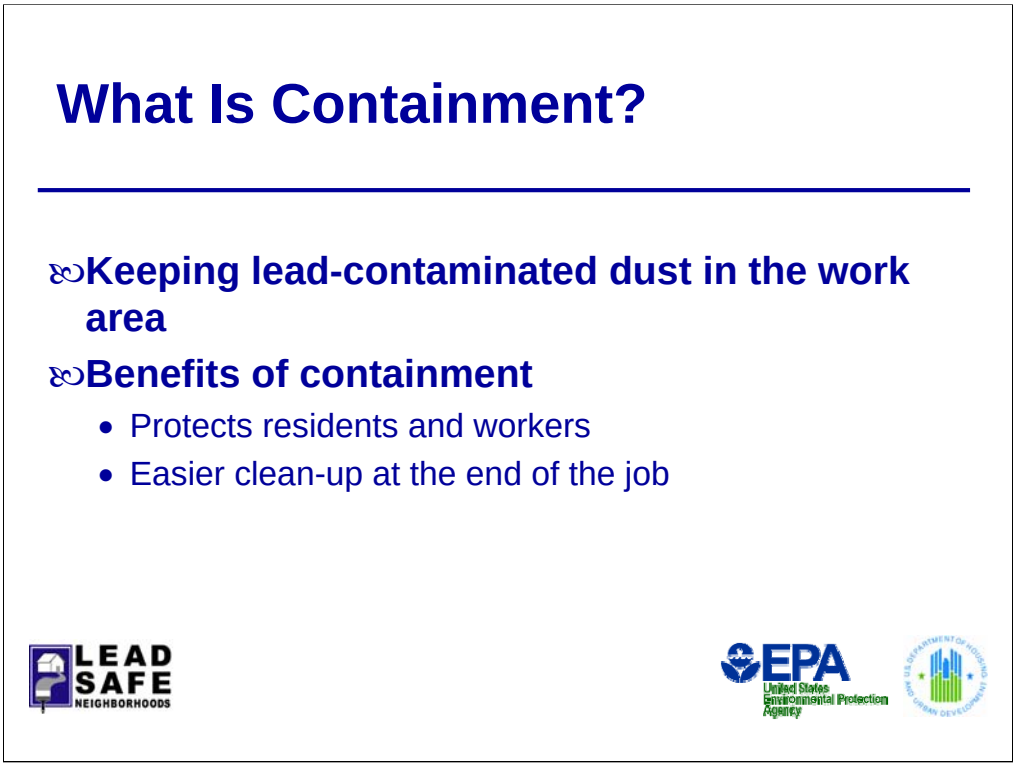
- What is containment?
- Four steps for interior activities
  - Special considerations for high dust jobs
- Two steps for exterior activities
  - Special considerations for high dust jobs

Upon completion of this module you will be able to

- Perform set-up techniques to contain lead dust and allow for easier clean-up at the end of the day and at the completion of the job.
- Identify appropriate set-up techniques for high dust jobs that may require additional containment.

What is a high dust job?

- A working definition of a **high dust job** is one that creates dust and debris that will spread beyond five feet from the area that you are working on. Conversely, a **low dust job** is one in which dust and debris will not spread beyond five feet from the work area.
- In general, jobs that involve only a small work area create less dust than jobs that involve a larger work area. However, in addition to the size of the job, the work practices (e.g., sanding), and equipment (e.g., power sander) used will affect how much dust is created. So, for example, using a power sander without a HEPA-filter vacuum attachment on a two square foot area could be considered a high dust job. Using power tools equipped with HEPA filtered vacuum attachments will create less dust than using power tools without these attachments.
- Examples of high dust jobs include:
  - Hand-scraping large areas
  - Using power sanders (e.g., orbital, belt) without HEPA equipped vacuum attachments and shrouds
  - Using electric planer without a HEPA equipped vacuum attachment and shroud
  - Removing paint with a heat gun and scraper
  - Using circular or reciprocating saw
  - Removing dry residue and paint after using chemical strippers
  - Demolishing painted surfaces using hand or power tools
  - Removing building components with painted surfaces that are in poor condition



What is containment?

- In general, there are many degrees of containment, ranging from simple plastic sheeting on the floor surrounding a small work area to a fully sealed dust room (discussed later in this module). Some types of containment are more effective than other types. For example, a drop cloth might be considered a form of containment by some, but because it is reusable and can trap and hold dust and paint chips, it can transport lead-contaminated dust from one job site to another. It is not an effective form of containment for working in homes with lead-based paint.
- For purposes of this training, "containment" is anything that stops lead-contaminated dust from spreading beyond the work area to non-work areas.

Benefits of containment

- **Reduces the risk to you and residents**. Following the work area set-up suggestions of this module will protect you, your co-workers, and residents from the negative health effects of lead while remodeling, renovating, or painting. Reduced risk to you and co-workers is also dependent upon wearing proper personal protection equipment.
- **Easier clean-up.** The pre-work set-up process is essential to keeping lead contaminated dust within the work area where it can be easily cleaned. Proper containment of the work area helps to limit the areas you need to clean up after the job is complete. This saves time and money for clean-up.

In pre-78 properties that receive Federal housing assistance, containment is required. Most work that disturbs paint in pre-1978 properties that receive Federal assistance, such as assistance from HUD or the U.S. Department of Agriculture Rural Housing Service, requires that containment be set up as show in this training. For work in these properties, use containment or check with the agency administering the assistance. Also check with the agency administering the assistance to find out if the occupants will be relocated during some or all of the work.

Current Interior Set-Up Practices Spread Lead-Contaminated Dust

- **Reusable drop cloth**
- **Furniture and household objects in the room**
- **Open doors and windows**
- **Broom or shop vacuum**

Do not use these practices when lead is present!

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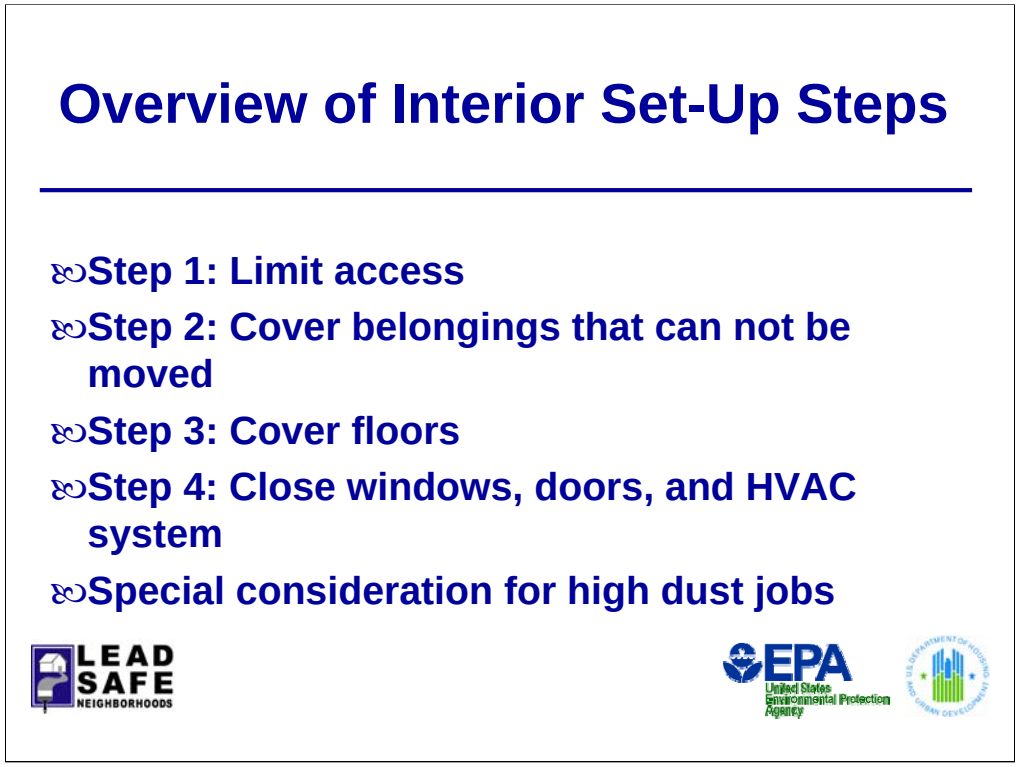
Current practice for interior set-up typically involves

- **A reusable drop cloth** is an improvement over not using any drop cloth, but it can carry dust from one job site to other job sites, and contaminate vehicles and storage areas. Some of the dust captured by a drop cloth falls to the floor when folding the cloth to carry away. However, some of the dust stays with the drop cloth. When it is used again it may contaminate the new (clean) job site with lead-contaminated dust.
- **Allowing furniture and household objects to remain in the work area** while the work is being performed. Lead-contaminated dust may fall and remain on these furnishings and objects after the job is completed. Residents could easily come into contact with the lead-contaminated dust on them and get poisoned.
- **Allowing residents access to work area** while the work is underway. The residents are then exposed to the lead-contaminated dust and can track the dust to other parts of the building where it could linger. Again, residents could easily be exposed to the lead-contaminated dust on the furnishings and get poisoned.
- **Open windows and doors** allows lead dust to float into other parts of the building or over onto neighboring property.
- **Brooms and shop vacuums are typically used to clean up.** Both clean-up methods capture some dust, but shop vacuums especially can put more dust into the air than they clean up if the filters are dirty or inadequate. Vigorous sweeping may also put a lot of dust into the air. To be effective, containment must be practiced even when cleaning up after the job.

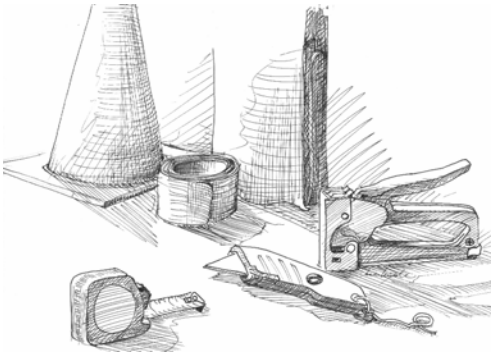


Overview of interior set-up steps

- Details for these steps are on the following several pages. These four steps will help contain lead dust to the work area for interior jobs.
- See page 13 in the *Lead Paint Safety Field Guide* for additional information. Appendix 1 contains a copy of the text from the *Lead Paint Safety Field Guide*.

Set-up Toolkit

- Barriers and signs
- Coverings for furniture, fixtures, plants, or outdoor play areas
- Other set-up containment items



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Typical items for work area set-up to contain lead-contaminated dust

Barriers

- Rope or other barrier
- Tape (bright color preferable)
- Saw horses
- Orange cones or other similar marker
- Signs

Coverings for Furniture, Fixtures, Plants or Out door Play areas

- Duct tape, painters tape, or masking tape
- Stapler
- Heavy plastic sheeting
- Utility knife or scissors
- Disposable mesh materials such as burlap, cheesecloth, or landscaping mesh

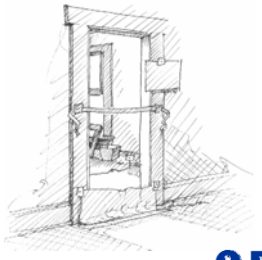
Other Set-Up Containment Items

- Tack pad (sticky pad for walking on to remove dust from soles of shoes)
- Small disposable towels or wipes
- Misting bottle

Ask your trainer if you have questions about where to find these supplies.

Interior Set-Up
Step 1: Limit Access

- Instruct residents to stay away from work area
- Do not allow small children (under 6 years) or pets near work area
- Place a barrier or tape across entrances
- Post a sign
- Do not allow eating, drinking, or smoking in the work area



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Restrict access to the work area and ask residents to stay away while work is underway

- Restricting access to the work area will avoid unnecessary exposure of residents, especially children, to lead dust and minimize its spread to non work-areas.
- Before the job starts, tell the residents to stay away from the area as much as possible. Residents and pets coming and going can easily track lead-contaminated dust throughout the home and into areas that are not being worked on and therefore to areas that are unlikely to be cleaned up promptly.
- This is especially true for small children under six years old. Be sure to explain to residents that this is for their own protection and that small children are most at risk of health problems from exposure to lead.
- You may need to provide an indication of how long you will be working in a particular area so that residents can plan ahead to obtain items that they may need before you begin working.
- Post a sign instructing people to stay out of the work area.
- The sign should be in the residents' native language if possible.

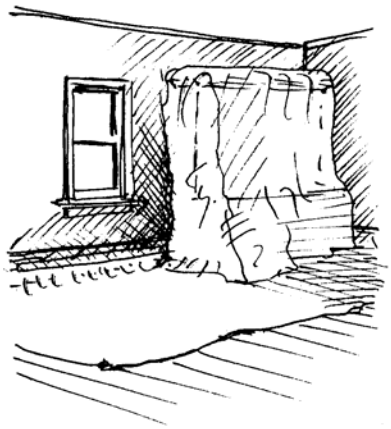
Place a barrier across entrances

- A physical barrier, such as a cone or masking tape, should be placed across doorways to remind residents to stay away, especially in buildings where more than one family lives. The barrier serves as a reminder to residents that people and pets should not enter the work area, and also signals that the area has not yet been cleaned up.

Do not allow eating, drinking or smoking in the work area

- This is primarily a protection for workers, but is also important if residents are living in or near the work area. Post signs that prohibit eating, drinking, or smoking in the work area. Dust in the air can land on food or be breathed when smoking. If food is set on an unwashed surface, it can easily pick up lead-contaminated dust, which is swallowed when eating the food.

Interior Set-Up
Step 2: Remove and Cover Belongings



- **Remove belongings**
- **Cover furniture and objects in protective sheeting**
  - Furniture
  - Carpet
  - Lamps, pictures, and other fixtures

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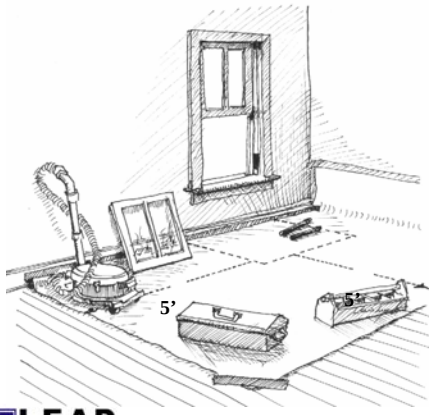
Remove belongings

- For low-dust jobs, removing small items and covering furniture should adequately protect residents belongings. For high-dust jobs, see Page 2-11.

Cover furniture and other objects in the room with protective sheeting

- Cover all objects that were not removed from the room in protective sheeting. Completely cover all non-movable furniture, carpets, and other personal items with protective sheeting. Secure the protective sheeting to the floor with tape so that no dust can get onto the covered items. Optimally, everything should be removed.
- Protective sheeting such as heavy duty plastic sheeting is commonly used in many remodeling jobs. Protective sheeting can be bought at many hardware stores.
- If it is a high-dust job, remove all furniture from the work area.

Interior Set-Up
Step 3: Cover Floors



- **Cover floors with protective sheeting**
  - At least five feet on all sides of work area
  - 2nd smaller layer if using chemical strippers
  - Place a tack pad at edge of protective sheeting, lay protective sheeting on frequently used walking paths to outdoors and bathrooms

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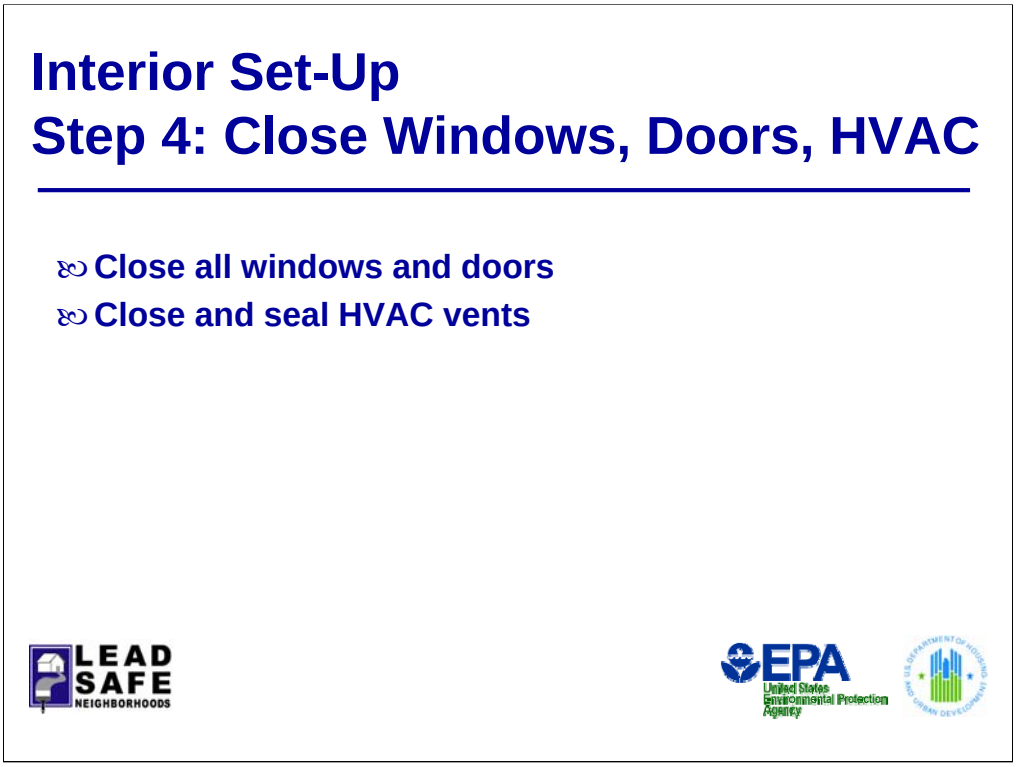
Cover Floors

- Use protective sheeting to cover the floor. The protective sheeting should extend at least five feet to the left, right and front – and in some cases to the back – of the work area. It should be tightly secured to baseboard or flooring using duct tape, painters tape, or masking tape. The corner edge of the protective sheeting should be reinforced using duct tape or a staple.
- A second smaller layer of protective sheeting should be used with chemical strippers. This second layer should be taped to the top of the first layer. Place the second layer immediately below the work area. This layer will capture any waste and aid in cleaning up.
- Tools that are used frequently should be left within the work area throughout the job to avoid tracking dust to non-covered areas.
- Consider covering shoes with removable shoe covers, wiping off the tops and soles of shoes with a damp paper towel each time you step off the sheeting, or using a "tack pad" that removes dust from the soles of shoes. Immediately place used paper towels in a covered garbage bin. A tack pad can be found at most hardware stores or bought through a supply catalog; it is a sticky pad that you walk on to remove dust from the soles of your shoes. The tack pad can be taped to an outer corner of the sheeting.



Close and cover windows and doors

- Close windows (if no work is being done on the window) and doors, including closet and cabinet doors in the work area.
- For higher dust jobs, seal windows with protective sheeting to prevent dust from getting into the trough or on sill.
  - Cut plastic sheeting layer slightly larger than the window that you are covering.
  - Attach the plastic sheeting with tape over the window to completely seal it.
  - Make sure that the tape or the sheeting does not cover part of the area that you are working on.

Close and seal HVAC vents

- Heating ventilating and air conditioning (HVAC) systems distribute air throughout the building and thus can allow dust to move to other rooms. Close the HVAC supply and return vents in the work area and then cover them tightly with plastic sheeting to prevent air from blowing the dust out of the contained work area and to prevent dust from getting into the HVAC system.

Remove rugs, draperies, and furniture from the work area when completing a high dust job

- Before starting work, request that the homeowner remove furniture and fixtures from the room. This will prevent lead-contaminated dust from getting into these items.

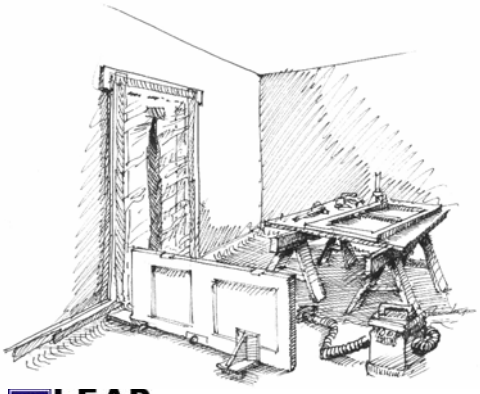
Cover door openings with a 2 layers of protective sheeting

- Covering the door with this two-layer system will contain the dust within the work area. Follow the steps below:
  1) Cut first plastic sheeting layer slightly wider and longer (three inches) than door frame.
  2) Make small "s" fold at the top of sheeting and tape to top of door frame. Make a similar "s" fold at the bottom of the sheeting and tape to flooring. This will ensure that the plastic is not taut. Staple top corners for reinforcement.
  3) For exiting and entering the room, cut a long vertical slit in middle of protective sheeting; leave six inches at top and bottom uncut. Reinforce the top and bottom of the slit with tape to prevent the plastic from tearing.
  4) Tape a second layer of protective sheeting to top of door frame. This layer is cut slightly shorter than door frame so that it will hang down flat against the first sheet of plastic.
  5) Tape and staple top corners of second layer to door frame and first layer. Leave hanging over first layer.
- See Page 46 in the *Lead Paint Safety Field Guide* for more information on how to put the two layer system in place.

Close and seal HVAC vents in the room

- If possible, turn off the HVAC system for work area. The vents should then be closed and covered with cardboard and protective plastic sheeting. After the work is complete the vent covers should be removed and washed. All filters for the HVAC system should be changed after any work that disturbs lead-based paint.

Special Considerations For Interior High Dust Jobs



- **For work on removable objects that create lots of dust**
- **Select a room that can be easily closed off**
  - Follow Steps 1 through 4 for interior set-up
  - Follow the procedures for high dust jobs

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Consider setting up a work room ("dust room") for high dust-generating work on components that can be moved out of their original room and into the dust room.

- A dust room prevents the spread of lead-contaminated paint and dust to non-work areas and also makes clean-up easier.
- Use this technique for high dust activities, for example, planing and scraping doors or window sashes where you are maintaining the original windows.
- Set up a dust room if work is being done on components in a room that residents must have access to, such as the kitchen. Rather than keeping the resident out of the kitchen, remove the components to the separate dust room and complete surface preparation there. After preparation is complete, the components can be returned to the kitchen.
- You may also consider taking components off-site to work on them.

Select a room that can be easily closed off from the rest of the home to use as a dust room.

- A dust room can be any room that can be closed off. Residents should not have to enter this space for the duration of the job. For example, a spare bedroom or other unused room that residents do not need to access during the time that the work is being performed. It should not be carpeted.
- The dust room should be close to the work area, if possible.
- Follow the four set-up steps for all work with minor modifications or additions: 1) limit access, 2) remove furnishings, 3) cover the floor, 4) seal windows, doors, and HVAC vents.
- Workers should wear protective clothing, NIOSH approved respirators (e.g., N-100), and safety goggles.
- Plan your work so that necessary supplies and equipment are in the room to minimize the number of trips outside the room while work is being performed.
- See Page 14 in the *Lead Paint Safety Field Guide* for more information.

Current Exterior Set-Up Practices Spread Lead-Contaminated Dust

- Ground uncovered
- Reusable drop cloth
- Paint chips
- No barriers
- Windows and doors open

Do not use these practices when lead is present!

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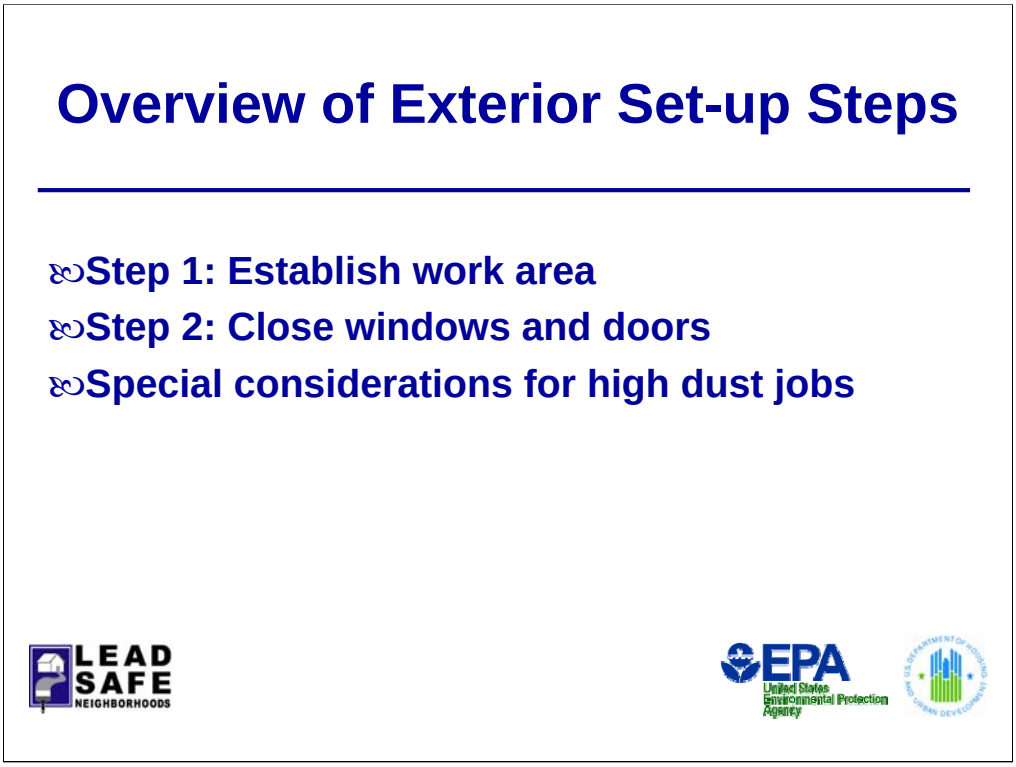
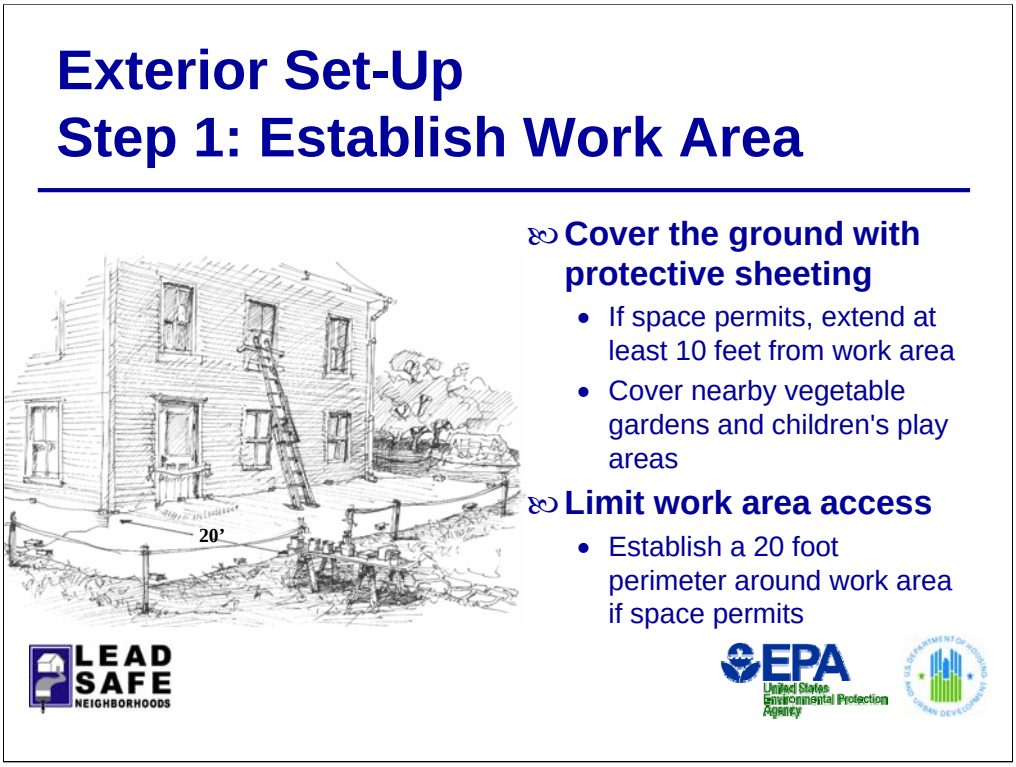
Current practices for exterior set-up

- **Leaving the ground uncovered** allows lead contaminated dust to get into the dirt, washed into storm drains, and into nearby play areas.
- **Covering with reusable drop cloth.** Similar to the problems associated with using a reusable drop cloth for interior jobs, a reusable drop cloth for exterior jobs can carry dust from one job site to other job sites. Some of the dust captured by a drop cloth falls to the floor when folding it to carry away. However, some of the dust stays with the drop cloth to the next work site, thus potentially spreading lead-contaminated dust to a new work site.
- **Small paint chips** and piles of dirt are often overlooked. This poses a considerable hazard to small children.
- **Residents and passers-by usually have unlimited access to area.** Similar to interior work, residents and passers-by may come into contact with lead-contaminated dust and breathe or swallow it.
- **Windows and doors are left open** and may allow lead contaminated dust to enter the house.



Two steps for exterior set-up to contain lead dust

- Details for these steps are on the following two pages. These two steps will help contain lead dust to the work area for exterior jobs. These steps may be modified for high dust jobs.
- See page 22 in the *Lead Paint Safety Field Guide* for more information.

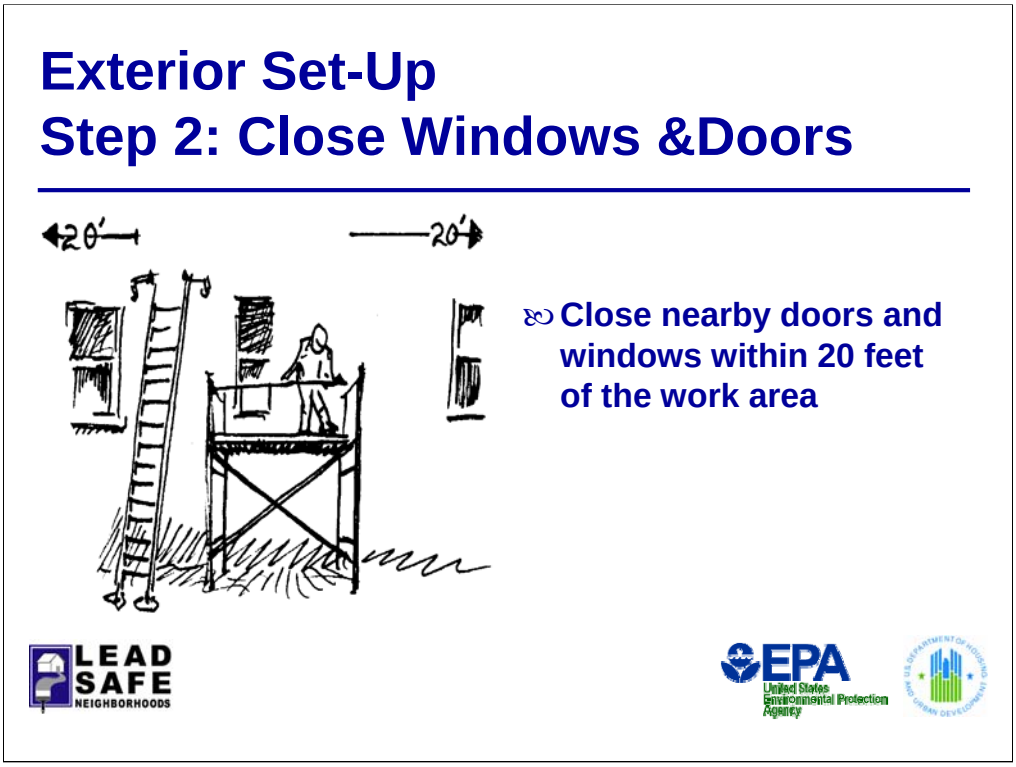


Cover the ground with protective sheeting

- If space permits, lay protective sheeting on the ground below the work area to at least 10 feet from the house. This creates a visible work area and helps remind residents and passers-by that they should not enter the work area unless they have a compelling need. Note: Plastic sheeting can kill plants.
- **Cover grass, shrubs, and gardens with a disposable mesh material** such as landscape fabric or burlap. Landscape fabric is an inexpensive plastic mesh that is often used by landscapers. It can be found in many plant nurseries or hardware stores. This covering will protect the soil and plants from lead contamination. Remember children often play in the dirt and may put their hands in their mouth while playing. Any dirt on their hands will go into their mouths and may be swallowed.
- **Remove toys and other items from work area** and cover all play areas including sandboxes.
- **Staple or tape the protective sheeting to the wall** of the building, or use a 2x4 wrapped in protective sheeting to hold the material next to the wall. Use heavy objects (e.g., rocks) to weight the other edges of the protective sheeting to the ground so that it won't blow in the wind.
- **When using ladders on plastic sheeting** consider placing a sturdy piece of plywood on the plastic and then setting the ladder on the plywood. This will prevent the ladder from puncturing the plastic and also will provide a stable surface for the ladder.

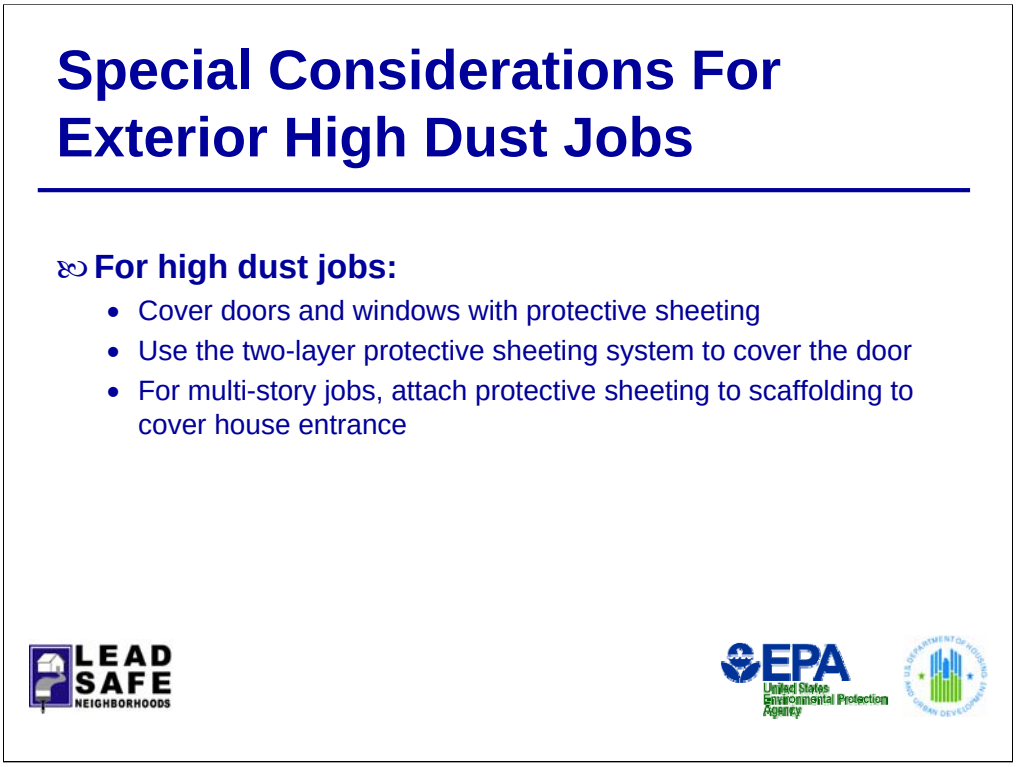
Limit work area access

- Limit access to work area by placing orange cones, saw horses, or tape around a 20 foot perimeter of the work area. This will help to discourage residents and passersby from entering the work area.



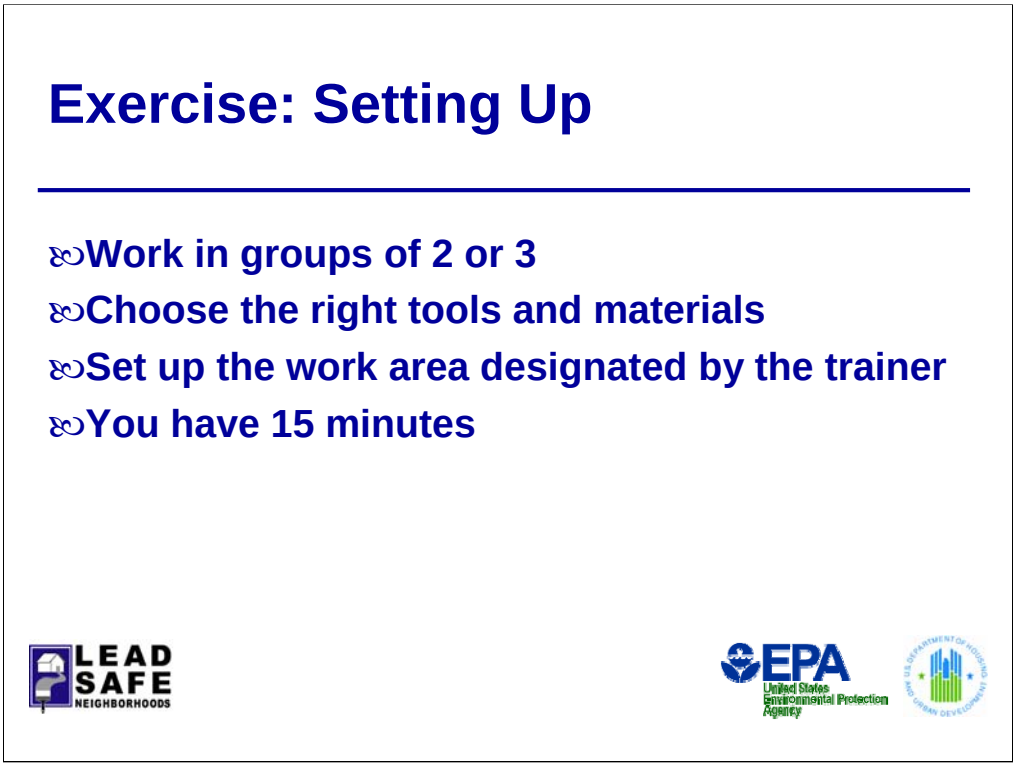
Close and cover windows and doors

- All windows and doors within 20 feet of the work area should be closed to prevent dust from entering the home. Consider requesting that the neighbors also close their windows and doors.



Cover windows and doors with protective sheeting

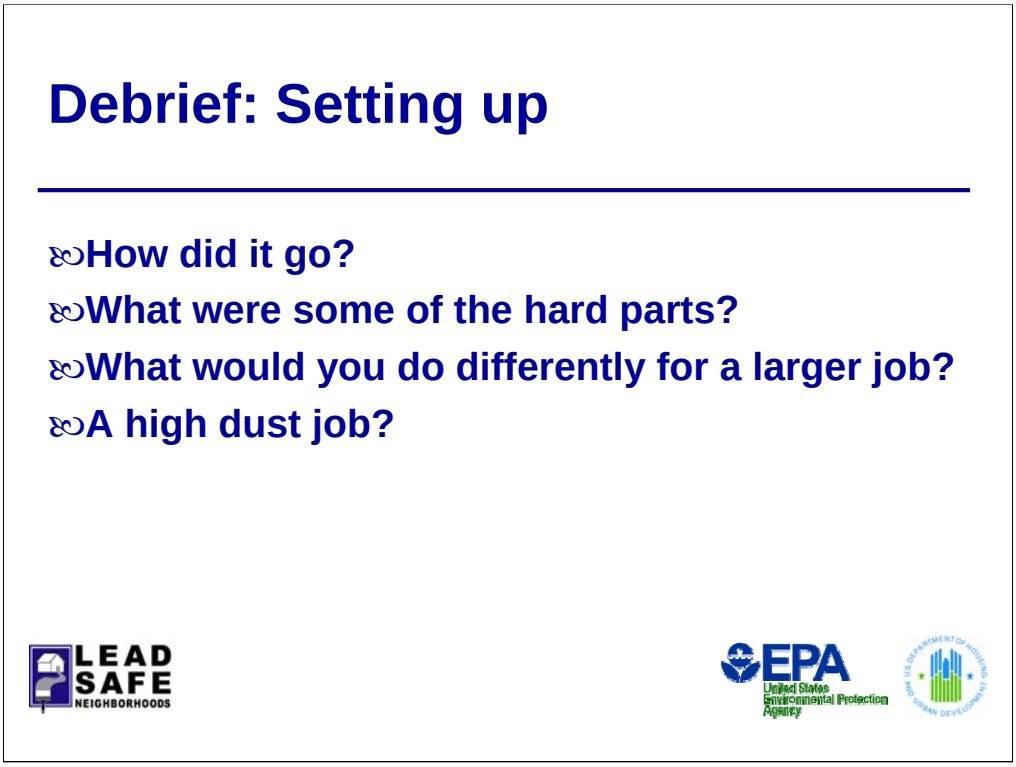
- For high dust jobs, close, lock, and seal windows and doors with protective sheeting. Follow the procedures for sealing doors and windows that were described earlier for interior high dust jobs.
- Entrances that must be used while work is underway should be protected with a covering when performing high dust jobs. Either place the 2-layer protective sheeting flap system over the entrance or cover the entrance with protective sheeting that is attached to scaffolding.
- If working with water, consider using landscaping mesh on the ground as described on the previous page.
- Be aware of wind conditions. On high wind days, it is not advisable to perform dust creating activities.



Setting Up

This exercise gives you a chance to practice setting up. The slide provides basic instruction.

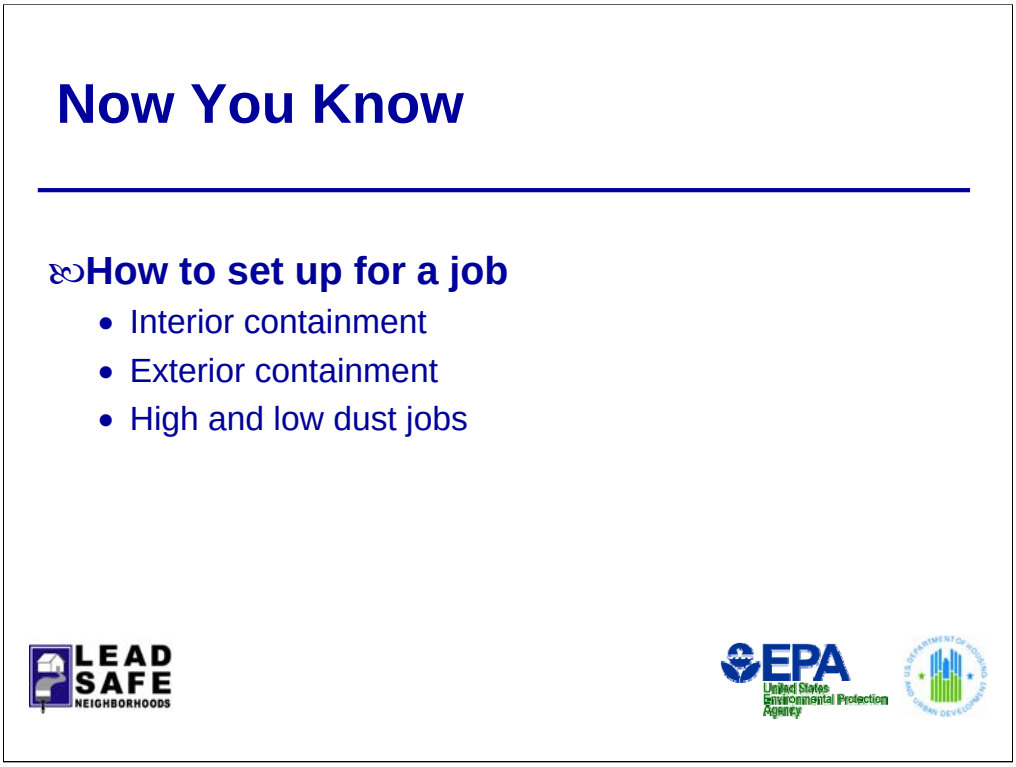
- Make groups of 2 or 3.
- Your trainer will assign you an area to set up for a job.
- Choose the right tools. Set up the work area to provide proper containment.



Setting Up – A debrief

Consider the questions above. Discuss as a large group.

Your trainer will demonstrate some techniques.



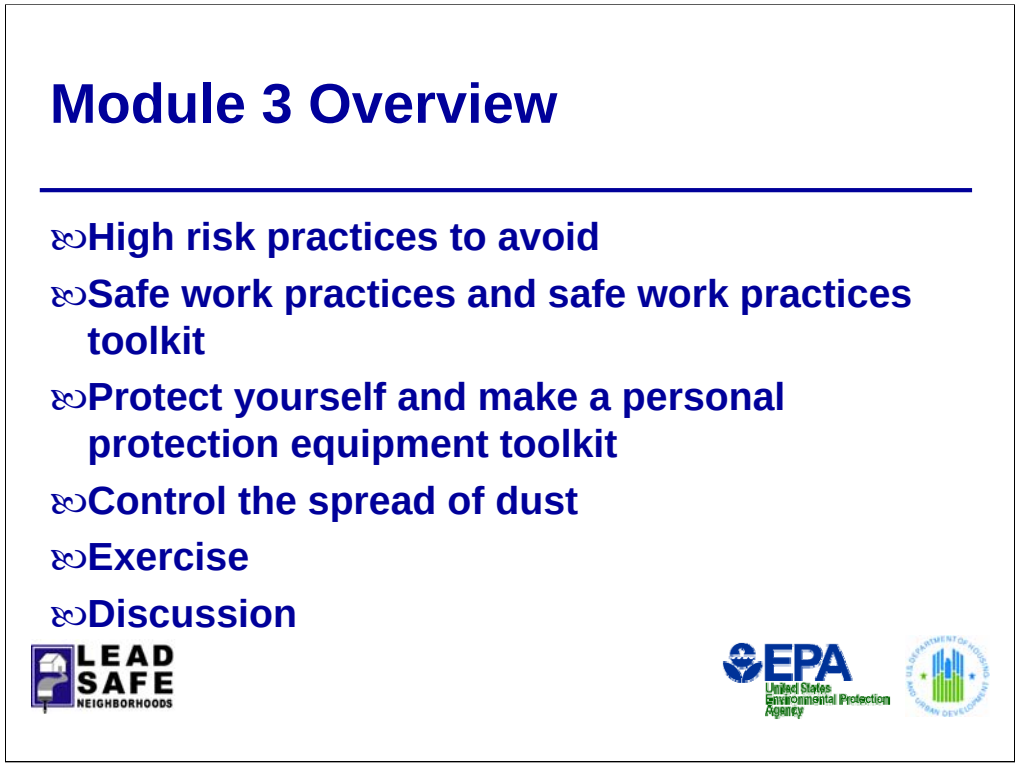
Now you know how to set up for a job. In the next module, we will discuss lead safe work practices during the job.

Preparation levels

- **In the Lead Hazard and Control Ordinance different levels of site preparation are required.**
- **These are listed in Appendix A of the ordinance in the back of your manuals**

Refer to Appendix A in the back of the full City of San Diego Lead Hazard and Prevention Ordinance.

Module 3
Safe Work Practices

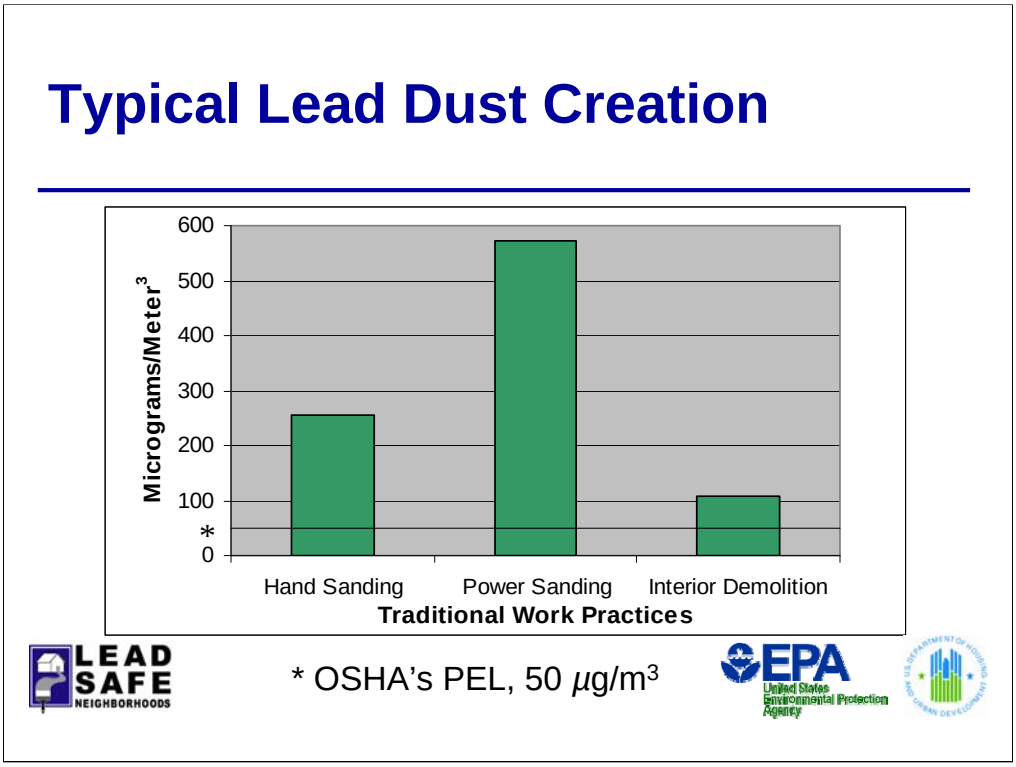


Role of safe work practices

- In addition to proper set-up at the start of a job and cleanup at the end of the job, the third key strategy to minimize the spread of dust is using safe work practices.
- Lead safe work practices are specific practices that create less dust and/or control its spread better than traditional work practices.

Upon completion of this module, you will know

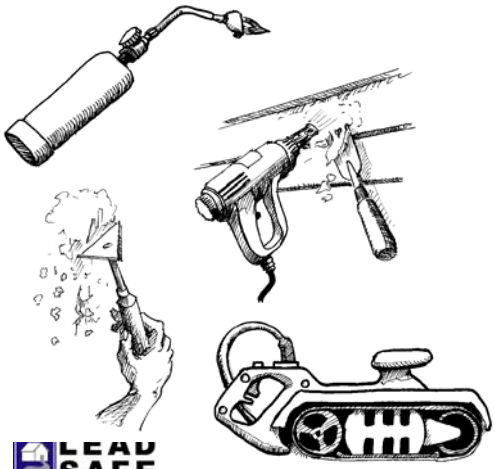
- What high risk work practices to avoid because they create dangerous amounts of dust and paint chips
- What safe work practices to use to reduce and control dust and paint chips
- What tools you will need
- How to apply safe work practices to common renovation, remodeling, and painting jobs



Traditional work practices create large amounts of dust

- This chart shows amounts of lead dust created by three common construction practices: hand sanding, power sanding, and interior demolition.
- The amount of lead dust for each practice is significantly higher than the level where worker protection, such as respirators and protective clothing, is required by OSHA. This level is called the Permissible Exposure Limit or "PEL." This airborne dust is hard to control.
- By using safe work practices, you can control and significantly reduce the amount of dust created on the job. Controlling lead dust at the source of generation is important because dust generated into the air will eventually become settled dust on the ground. Later in this chapter, you will learn safe work practices that can replace these restricted work practices.
- The data used in the chart above are from *Lead Exposure Associated with Renovation and Remodeling Activities: Summary Report*, Prepared by Battelle for the U.S. Environmental Protection Agency, May 1997, EPA 747-R-96-005.

High Risk Practices



- **Open flame burning or torching**
- **Heat gun above 1,100 degrees Fahrenheit**
- **Power sanding, grinding, abrasive blasting without HEPA vacuum attachment**
- **Extensive dry scraping and dry sanding**

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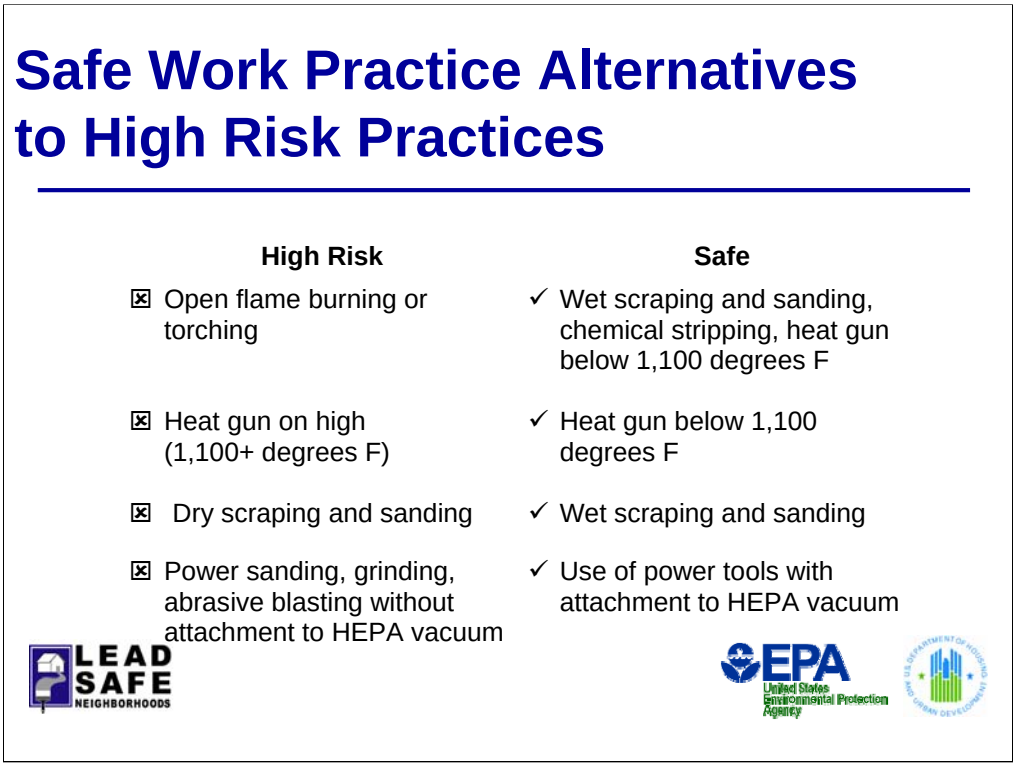
Avoid these traditional work practices

- A key to minimizing the spread of dust and paint chips is to not use certain traditional work practices known to create large amounts of dust and debris.
  - **Open flame burning or torching of paint and using a heat gun above 1,100º F** create fumes that are dangerous for workers to breathe. Small lead particles created by burning and heating also settle on surrounding surfaces and are very hard to clean up.
  - **Power sanding, grinding or abrasive blasting**, even on a small surface, creates a large amount of leaded dust that floats in the air and then settles on surfaces inside and outside the work area.
  - **Extensive dry hand sanding and hand scraping** can also create large amounts of dust and paint chips.

- See pages 9-10 in the *Lead Paint Safety* Field Guide for more information about these practices.

These practices are prohibited in pre-1978 properties that receive Federal housing assistance. If a pre-1978 unit or the family that lives in the unit receives Federal housing assistance, the practices listed on the slide above are prohibited, unless the property has been shown to be lead-free with a lead-based paint inspection. HUD also prohibits paint stripping in a poorly ventilated space using a volatile paint stripper. States, localities, and tribes may also prohibit these practices.



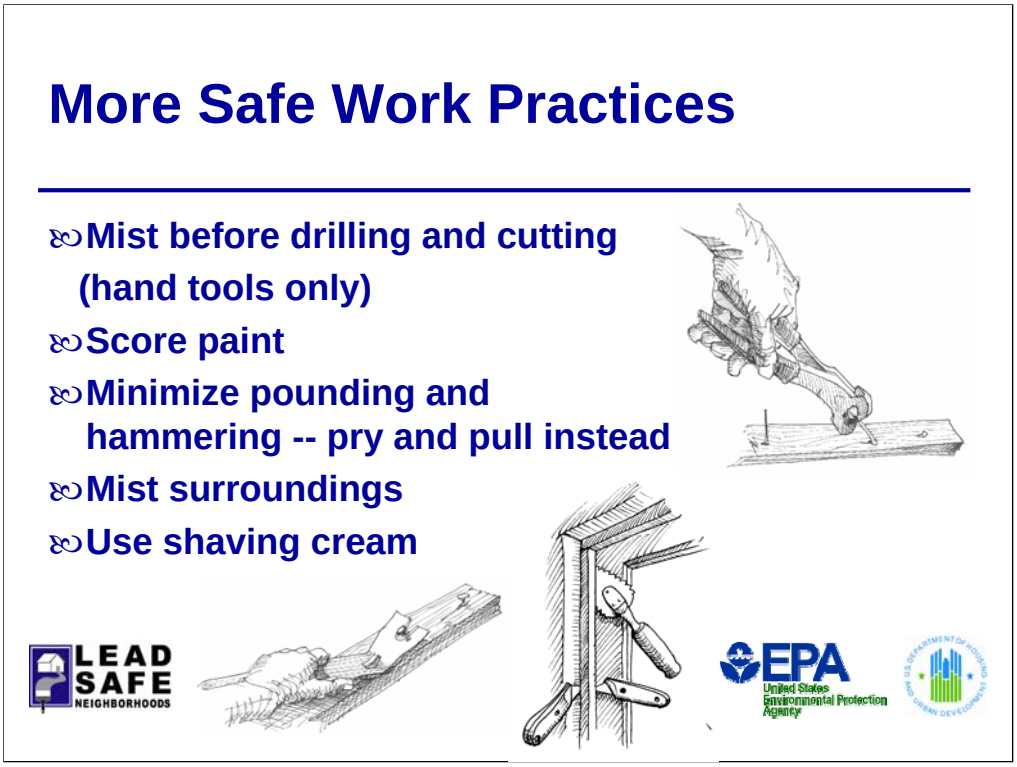
Alternative safe work practices for each high risk practice

- For both large and small paint removal jobs, there are safe work practice alternatives.
- Some possible alternatives are listed on the slide.
- With experience, you will determine which safe work practices work best for different tasks.

  Note: HEPA (high efficiency particulate air) vacuums have HEPA-rated filters that stop 99.97% of particles of 0.3 microns or larger.

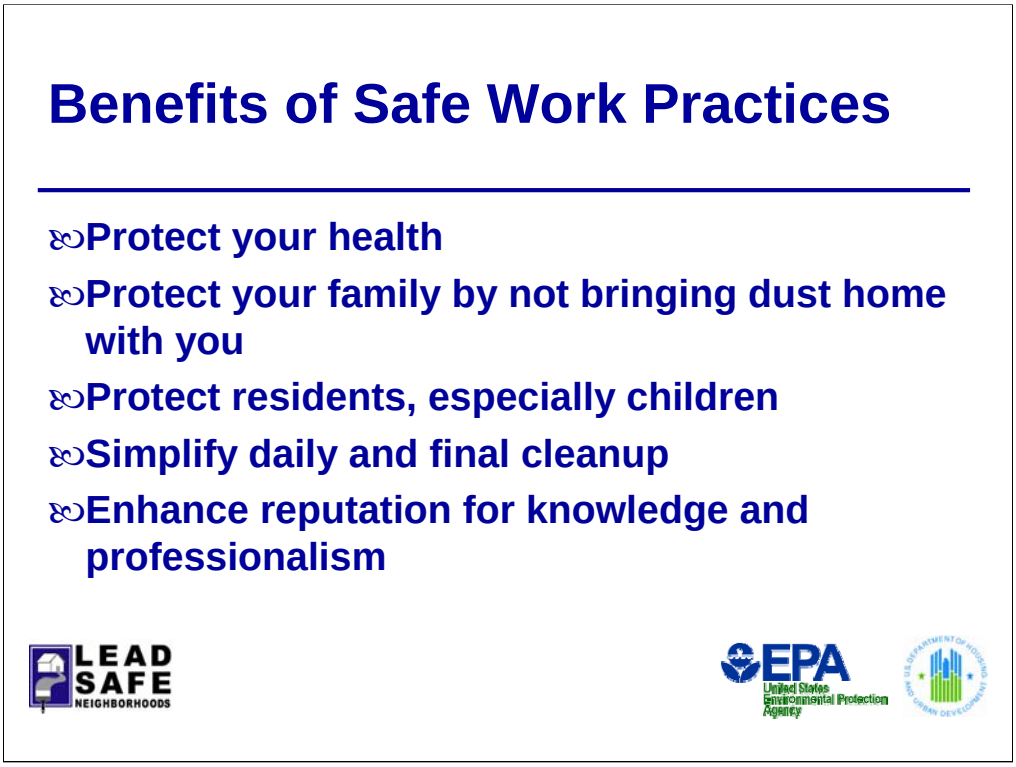
Also keep in mind

- Chemical strippers can be dangerous. Some can cause burns. Methylene chloride is suspected to cause cancer but may be appropriate for exterior work. Types of strippers range from citrus-based (safer) to more dangerous caustic strippers. Follow the manufacturer's directions when using any chemical stripper.
- If building components to be stripped can be removed, such as doors, consider having them stripped off-site at a paint stripping facility.
- Half-face negative respirators do not provide sufficient breathing protection when using methylene chloride strippers.
- See pages 9-10 in the *Lead Paint Safety Field Guide* for more information.



Additional safe work practices

- Mist before drilling and cutting to reduce dust creation and keep dust from becoming airborne and spreading beyond the work area.
- Scoring paint before separating components helps prevent paint from chipping when a paint seal is broken.
- Prying and pulling apart components and pulling nails instead of pounding create less dust and fewer paint chips. Vise grips may be useful when pulling nails.
- Frequent misting of surrounding surfaces with water helps keep dust and paint chips from becoming airborne when disturbed by work activity.
- Use shaving cream or foam prior to drilling or coring.
- Using power tools on heavily misted surfaces can be dangerous if they are wet. Tool blades can slip and water can cause electric shock. When misting, lightly mist the surface and use hand tools only. If power tools are to be used, they should be attached to a HEPA vacuum.
- EPA and HUD encourage contractors to use ground fault circuit interrupters (GFCI's) to help ensure safety while using electrical equipment.



Advantages for contractors

- In addition to being safer for residents, safe work practices have advantages for contractors and workers.

By effectively using safe work practices, you can

- Foster your reputation as an informed and professional contractor who recognizes the risks of lead-based paint and takes steps to help ensure resident and worker safety.
- Gain a reputation for leaving the job site cleaner than when you arrived.
- Help your customers feel safe and reduce their anxiety about the risks of remodeling and renovations.
- Have less dust and debris to clean up at the end of the job.
- Reduce risk of taking leaded dust home to your family.
- Because contractors are required to give customers the lead information pamphlet before starting work, those who use safe work practices can better respond to customer concerns raised by the pamphlet. A copy of the pamphlet is provided in Appendix 4. Information about the Pre-Renovation Education Rule, which requires contractors to give customers the pamphlet is provided in Appendix 5.

Safe Work Practices Toolkit: Tools, Equipment, and Supplies

- Wet/dry sandpaper, sanding sponge
- Mist bottle, pump sprayer
- Tape (painter's, duct, masking)
- Heavy duty (4-6 mil) plastic sheeting
- Heavy duty garbage bags
- Chemical stripper
- Utility knife
- Heat gun
- Vacuum with HEPA filter

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Safe work practices toolkit tools, equipment, and supplies

- There are some basic low-cost tools that you will need for safe work practices. Most of these tools and supplies are widely available from suppliers and home improvement stores.
- These tools are used to help reduce dust and for cleaning while working to keep dust under control.
- You will need several basic supplies to protect floor and ground surfaces, and bag, wrap, and clean dust as work is performed. If dust and debris are contained in plastic right after they are created, there is less chance that they will be spread beyond the work site.
- More toolkit supplies are listed on the next three pages of this manual.
- HEPA (high efficiency particulate air) filters are able to filter very small particles--to be considered a HEPA filter, it must be able to filter 99.97% of particles of 0.3 microns or larger.
- See the Tool and Supply List (Pages pages 75-76) in the *Lead Paint Safety* Field Guide for more information.
- See Appendix 2 for a complete list of supplies in the Safe Work Practices Toolkit.

Safe Work Practices Toolkit: Consider Investing in New Tools

Large jobs may require special tools

- Power sanders, grinders, planers, shavers with HEPA filter vacuum attachment

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HEPA equipment for power tools

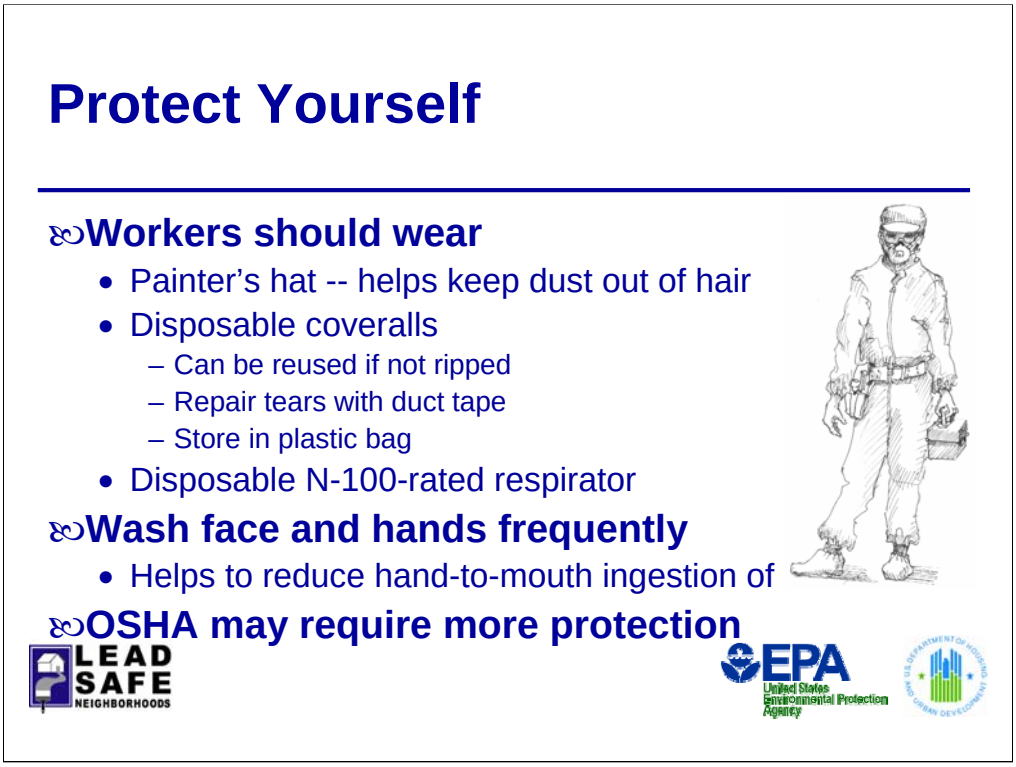
- Because wet methods are appropriate and practical only when using hand tools, adapters and HEPA vacuums are necessary for power tools.
- For contractors who frequently remove paint from large surfaces, an investment in attachments to control dust can make the job go quickly and safely.
- These tools use HEPA vacuums and adapters that help contain dust and debris as they are created. A shroud helps to contain the dust and paint chips as they are created. They are carried to a HEPA vacuum by a hose attached to the shroud.
- It may be possible to rent these tools, if you decide to not invest in them.

Power washing

- Power washing can be used if runoff is properly contained and disposed.

Set-up is still important

- Proper set-up and cleanup is still important because HEPA attachments do not eliminate the possibility that work will spread dust. Nonetheless, these attachments will reduce dust levels and thereby shorten cleaning time and lower costs.
- See the Tool and Supply List (Pages pages 75-76) in the Lead Paint Safety Field Guide for more information.

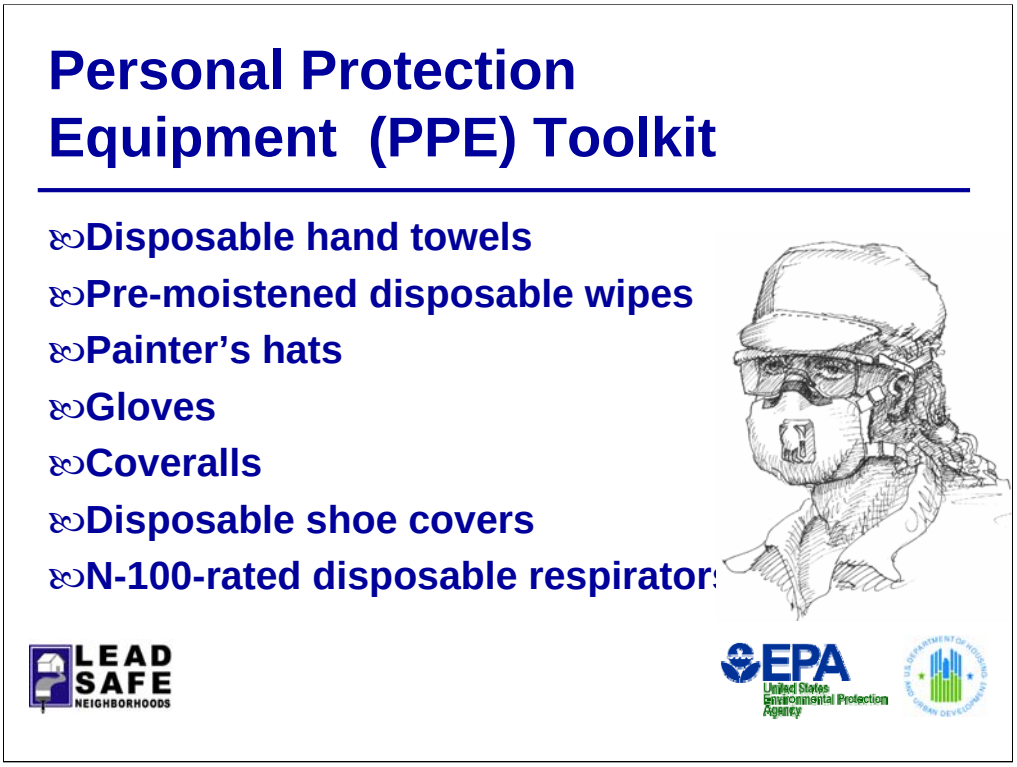


Workers should protect themselves

- **Minimum steps** that workers can take to protect themselves include:
  - **Painter's hats** are an inexpensive way to keep dust and paint chips out of workers' hair. Painter's hats can be easily disposed of at the end of the day or job.
  - **Disposable coveralls** are a good way to keep dust off of workers clothes and reduce the chances for carrying dust to other areas of the residence as workers come and go. The coveralls can be removed when workers leave the work site and stored in a plastic bag overnight. To keep costs down, consider buying extra large size coveralls in bulk and sizing to fit workers with duct tape. Some coveralls have a hood to keep dust out of hair.
  - **Respiratory protection.** Workers should wear respiratory protection, such as an N-100 disposable respirator, to prevent them from breathing leaded dust.
  - **Workers should wash** their hands and faces periodically to avoid ingesting leaded dust. It is especially important to wash well before eating, drinking or smoking and to not do any of these in the work site. Some of the dust that settles on the face around the mouth invariably finds its way into the mouth. Workers should also wash at the end of the day before getting in their car or going home. They can take leaded dust home to their families.

- OSHA rules may require employers to take further steps to protect the health of workers on the job.

- See page 17 in the *Lead Paint Safety Field Guide* for more information on worker protection.



Personal protection equipment

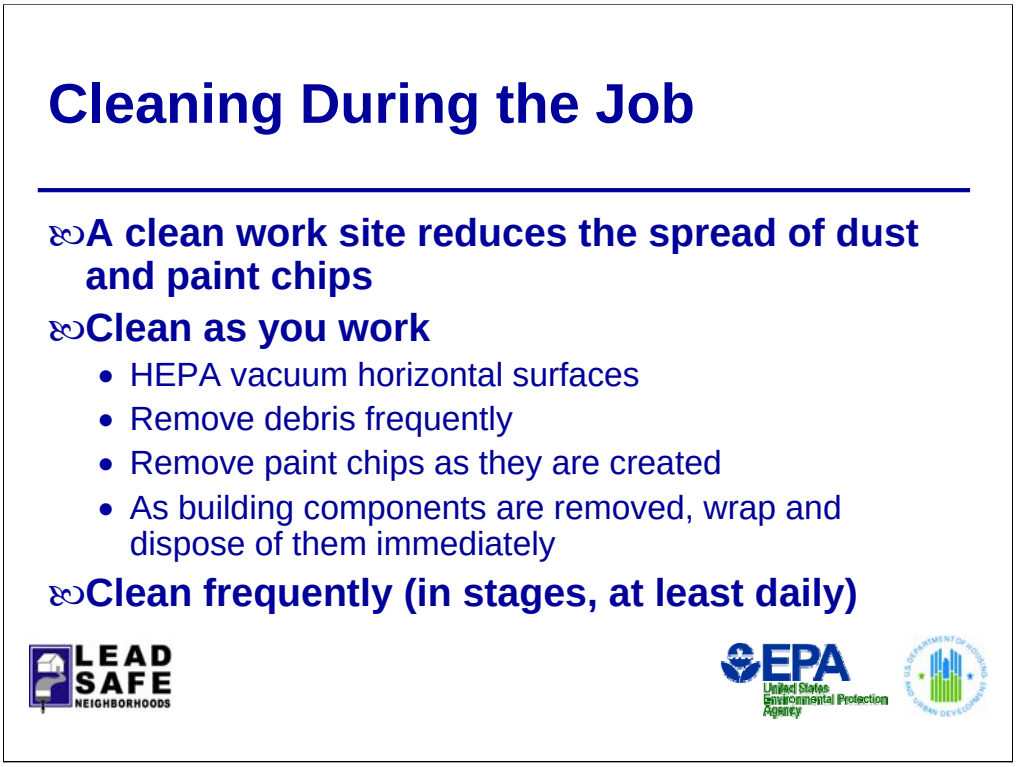
- Disposable hand towels (such as paper towels) and pre-moistened wipes have multiple uses on the job. They can be used to quickly clean surfaces and by workers to wipe dust before leaving the work site and washing before eating, smoking, or drinking.
- "N-100" is a NIOSH rating for respirators. Respirators with an N-100 (or HEPA) rating are approved for use when working on lead-based paint surfaces. OSHA may require a different type of respirator rated for use around lead, depending on work conditions.
- All of the items on this list are readily available at hardware and home improvement stores. N-100 disposable respirators cost approximately $6-7.
- See pages 75-76 Tool and Supply List in the *Lead Paint Safety Field Guide* for more information.
- See Appendix 2 for a complete list of supplies in the PPE Toolkit.

Additional equipment you should consider

- First-aid kit
- Safety glasses
- Ear protection for using power tools

Precautions to take when leaving the work site

- When you leave the work site (the area covered by protective sheeting or the room), take precautions to prevent spreading dust and paint chips to other parts of the residence on your clothes and shoes.
- Every time you leave the work site, wipe or vacuum your shoes before you step off of the plastic sheeting. A large tack pad on the floor can help to clean the soles of your shoes. Remove shoe coverings if you are using them.
- At the end of the day, change your clothes and wash yourself to reduce the risk of contaminating your car and taking leaded dust home to your family.
  - Before leaving the worksite, remove any protective clothing, HEPA vacuum dust from non-protective clothing, and thoroughly wash your hands and face. Throw away disposable clothing or place clothing in a plastic bag to stop dust from getting on other clothes at home.
  - As soon as you arrive at home, take a shower and be sure to thoroughly wash your hair, especially before playing with children. Wash work clothes separately from regular household laundry to stop lead particles from getting on your other clothes.



Clean the work site frequently

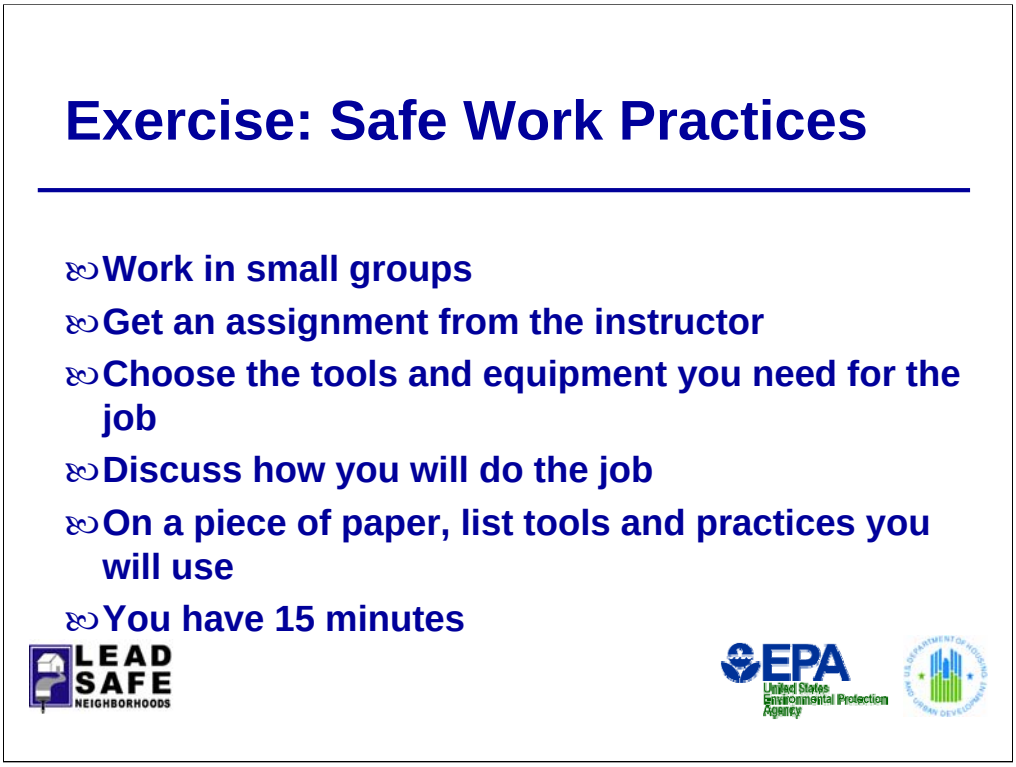
- Cleaning the work site frequently as the job progresses will reduce the spread of dust and paint chips. The cleaning need not be as thorough as the final cleanup. It should, however, keep debris, dust, and paint chips from piling up and spreading beyond the immediate work site.

Cleanup during the job includes

- **Removing debris frequently.** During demolition jobs, seal and dispose of construction debris as it is created.
- **Vacuuming horizontal surfaces frequently.** HEPA vacuum dust and paint chips that settle on surfaces, including protective sheeting. As workers come and go during the work day, this debris is easily spread. Periodic cleaning throughout the work day will help to minimize workers tracking dust.
- **Collect paint chips as they are created.** When removing paint, piles of paint chips can also spread outside the immediate work area as workers come and go from the work site. To keep paint chips from spreading beyond the work site, make sure that they are collected as they are created. Also, periodically vacuum (with HEPA filtered vacuum) or wet sweep and dispose of paint chips.
- **Wrapping and disposing of removed components.** When removing painted components such as windows, trim, and cabinets, wrap them in plastic sheeting and dispose of them in stages. This will prevent the spread of debris and keep residents, especially children, from coming into contact with leaded dust created by work.
- **How often should cleaning during the job take place?** The goal is to keep dust and debris under control, not to maintain a completely spotless site at all times. Every job is different, so clean when it makes sense to without hindering progress. Remove large amounts of dust, paint chips, and debris frequently, at least daily.

Discussion

- What are the key safe work practices and equipment?

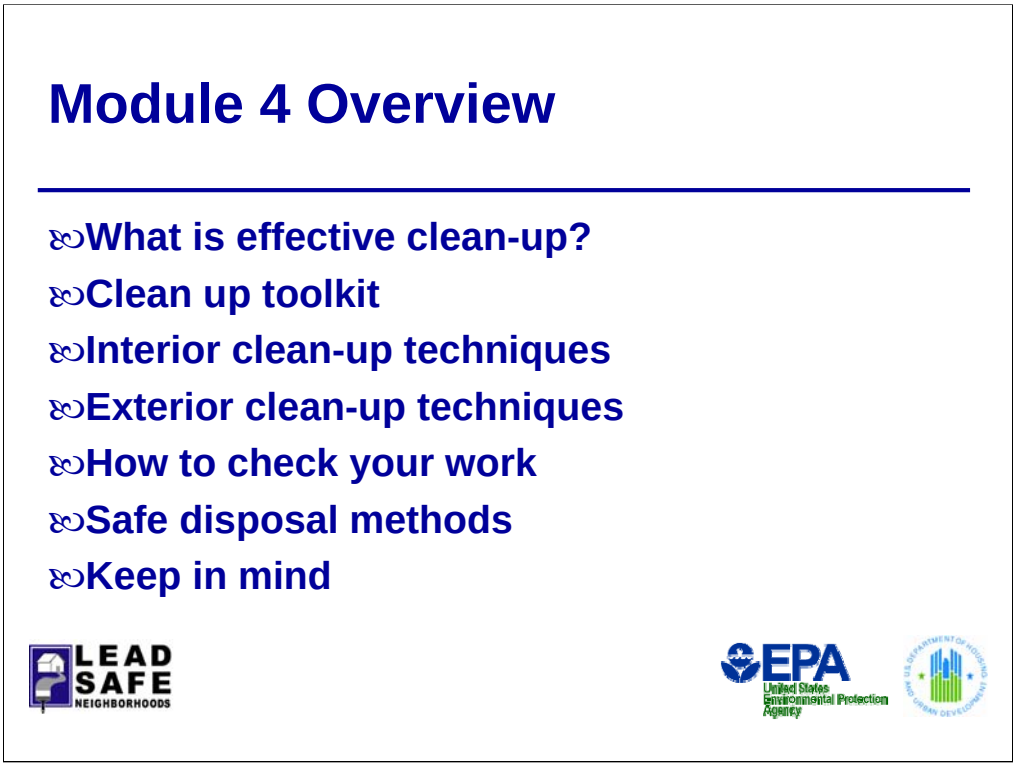


Work Practices

This exercise gives you a chance to demonstrate work practices. The slide provides basic instruction.

- Stay in your groups of 2 or 3.
- Your trainer will assign you a task.
- Choose the right tools and personal protective equipment.
- Discuss the work practices you will use. Talk about any tools or practices you will do differently from how you usually work.

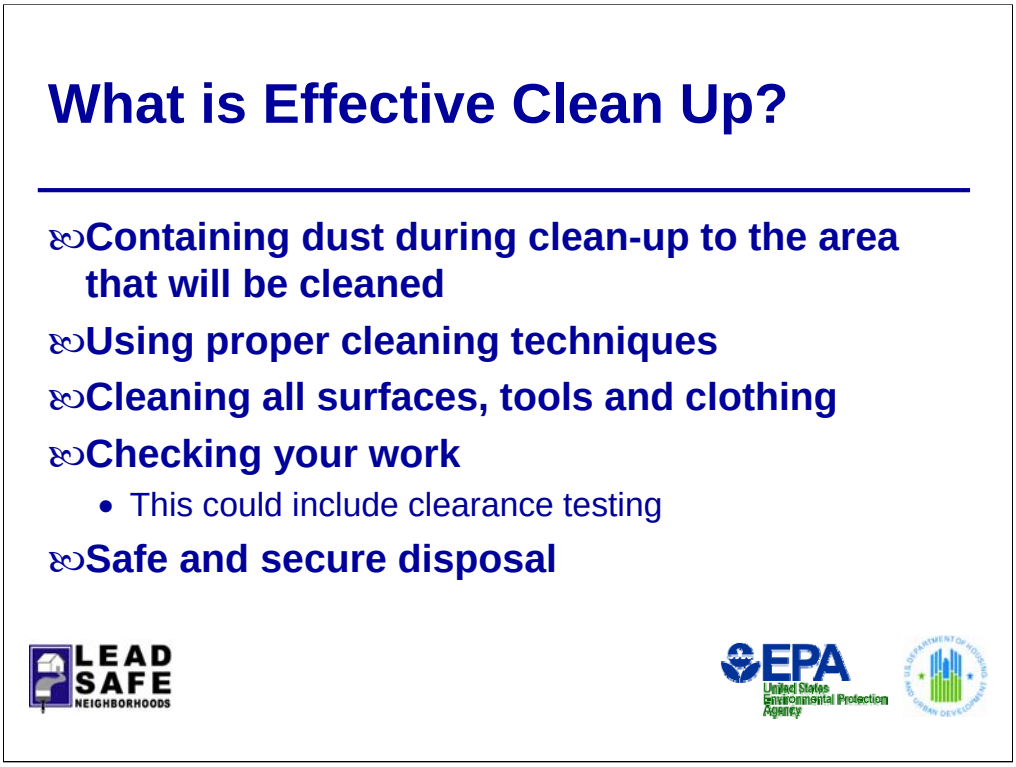
Module 4
Clean-up and Check Your Work



What you will learn in this module

In this module, we will cover all the topics listed on the slide above.

- The goal of cleanup is to leave the work area as clean or cleaner than when you arrived so that, as a result of your work, lead dust is not left behind to poison the residents of the home.
  - At the end of this module, you will know how to check your work to ensure the work area is clean enough to pass a clearance examination, if it is required.
- By using the techniques described in the following pages of this module you will be able to clean a work area quickly and efficiently. Remember, approaching a clean-up is similar to approaching a job. Proper preparation and planning will help make your cleaning efforts more effective and faster.
- Always schedule time at the end of each day to clean thoroughly.



Containment

- Effective cleaning begins with proper preparation and containment. Clean-up will be much easier and efficient if proper containment has kept all dust and debris confined to the work area. Also, containing dust to the area that is being cleaned is important.

Proper cleaning techniques

- You should be careful not to spread dust and contaminate other areas while cleaning. Using the techniques outlined in this module and following the proper sequence will help ensure that you do not contaminate other areas while cleaning.

Cleaning all surfaces

- "All surfaces" includes vertical surfaces such as walls and windows and horizontal surfaces such as floors, door tops and moldings, window troughs, and window sills. Cleaning should proceed from high to low, i.e., from top of wall to window to floor.

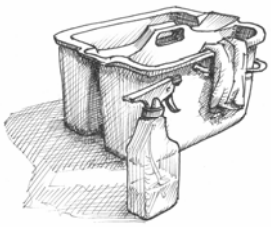
Checking your work

- Always conduct a visual inspection after any job. Look for any visible paint chips, dust or debris.
- It is also a good practice to conduct clearance testing (also known as dust wipe sampling) to confirm that all the leaded dust was cleaned up. We'll talk more about clearance tests on slide 4-7.

Safe and secure disposal

- Bag and "gooseneck seal" all waste in heavy duty plastic bags. Safely dispose of all waste in accordance with State and Federal regulations.

Clean Up Toolkit



- Vacuum with HEPA filter
- Misting bottle and pump sprayer
- Mop with disposable heads
- Detergent
- Two buckets or two-sided bucket
- Disposable hand towels
- Heavy duty garbage bags
- Duct tape
- Shovel and rake

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Clean Up Toolkit

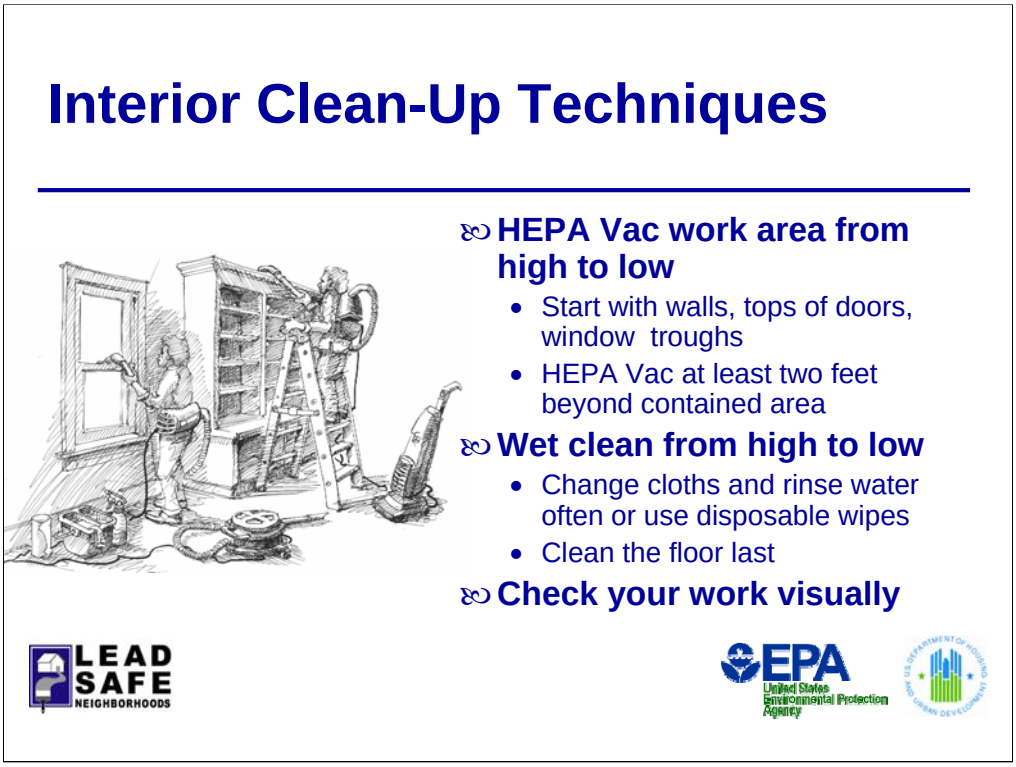
- The tools listed on the slide above are for cleaning interior and exterior jobs. Some tools, such as the pump sprayer, shovel, and rake are used primarily for exterior clean-up. Other tools, such as the buckets and mops are used primarily for interior clean-up.
- The following pages discuss clean-up for both interior and exterior situations.

Pick up

- Always begin a clean-up by picking up all paint chips and any visible debris with a wet disposable cloth.

Protective sheeting

- Protective sheeting may be used again within the same work area if it has not already been folded (see pp. 47, Lead Paint Safety Field Guide). When the job is complete, clean protective sheeting using a HEPA vacuum. Protective sheeting should then be folded and taped shut. Always fold dirty side inwards, seal and place in heavy duty plastic bag. "Gooseneck-seal" the heavy duty plastic bag and dispose with the rest of your waste at the end of the job.



HEPA vacuum the <u>contained</u> work area from high to low

- Start with the walls, tops of doors, and window troughs (high) and work your way down to the floor (low).
- Clean walls with a HEPA vacuum or by lightly wiping with a damp disposable cloth.
- Be thorough – don't rush.

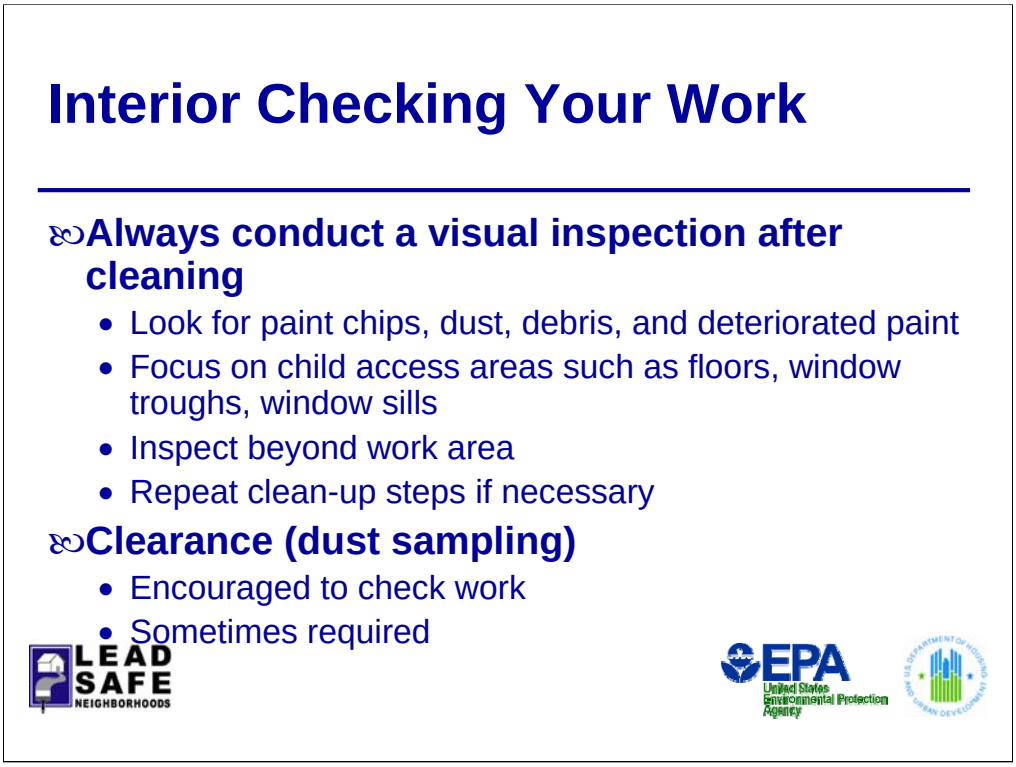
When cleaning wet, you can either mist the surface with cleaning solution or use a wet disposable cloth

- Work from high surfaces to low. If a surface is very dirty use a moist paper towel before beginning to scrub with a wet cloth. (Note: Wiping is not sufficient. You must scrub.)
- Replace cloths and change rinse water often.
- An alternative to rinsing and replacing cloths is to use disposable wipes.

Clean the floor last

- Mist floor and clean with a wet mop using cleaning solution and the two-sided bucket.
- Clean at least two feet beyond contained area.
- Then, repeat the process using a new mop head and clean water.
- Remember, always keep one side of the bucket for cleaning solution and the other side for rinsing and wringing out the cloth or mop-head. Change the rinsing water often.

It may be necessary to repeat the HEPA Vacuum and Wet Clean. <u>Always</u> clean until you can pass a visual check.



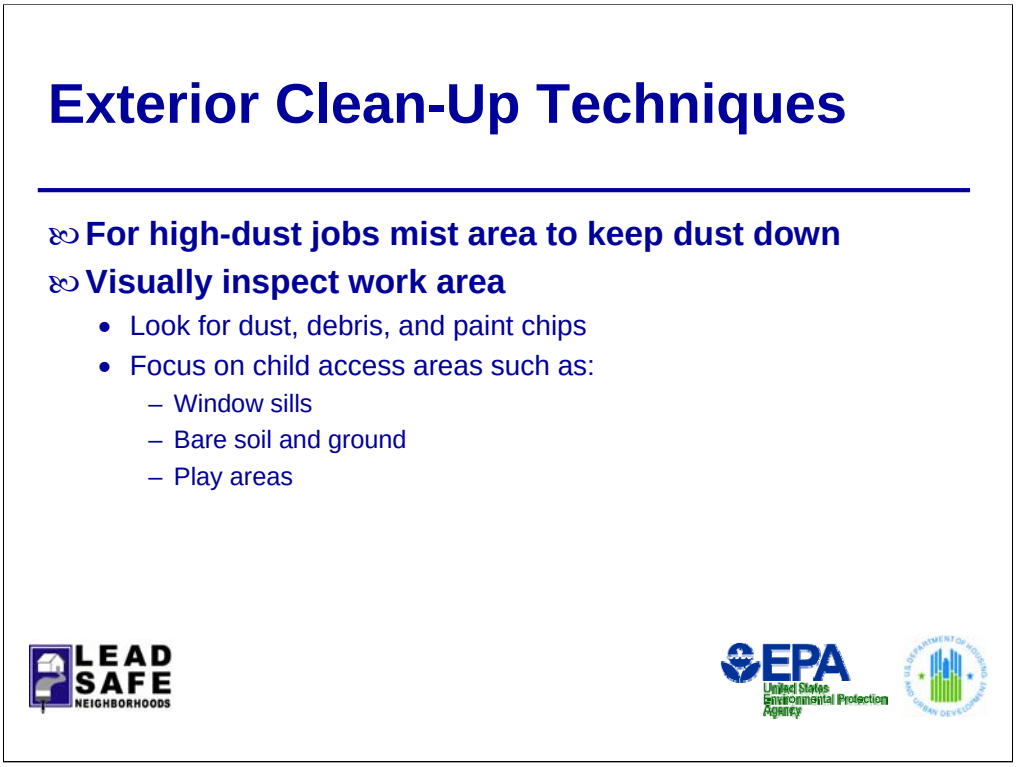
Visual inspection

- A thorough visual inspection should be the first step of checking your clean-up. Any visible paint chips, dust or debris should be collected and disposed.
- **Visual inspection will not verify that a work area has been cleaned adequately**. In many instances lead dust is not visible to the naked eye and will be not be detected during a visual inspection. To ensure that a work area is properly cleaned, follow the practices outlined in this section and take a dust wipe sample for verification.

Clearance

- Clearance (dust sampling) can be performed to check the effectiveness of the clean-up efforts.
- In some cases, dust sampling may be required as part of "clearance" (a defined process to ensure that a work area is not contaminated with lead dust after work is completed). In such cases, dust sampling must be performed by a certified or trained person. Supervisors should be aware of any State, local, or tribal laws requiring clearance following renovation and remodeling work.

Clearance is required in properties receiving Federal housing assistance. Clearance is required in many of the jobs in pre-1978 properties that receive Federal housing assistance. The clearance examination may be scheduled by the agency administering the assistance. A clearance examination is performed by a trained person independent of the crew performing the work. Ask your client or contact the agency administering the assistance in the property to find out if a clearance is required at the end of the job and to find out who will schedule the clearance exam. Remember, if the property fails clearance, the unit must be re-cleaned and another clearance examination performed. Sometimes the cost of re-cleaning and additional clearance will be the responsibility of the contractor. Cleaning well the first time will save you time and money.



High-dust jobs

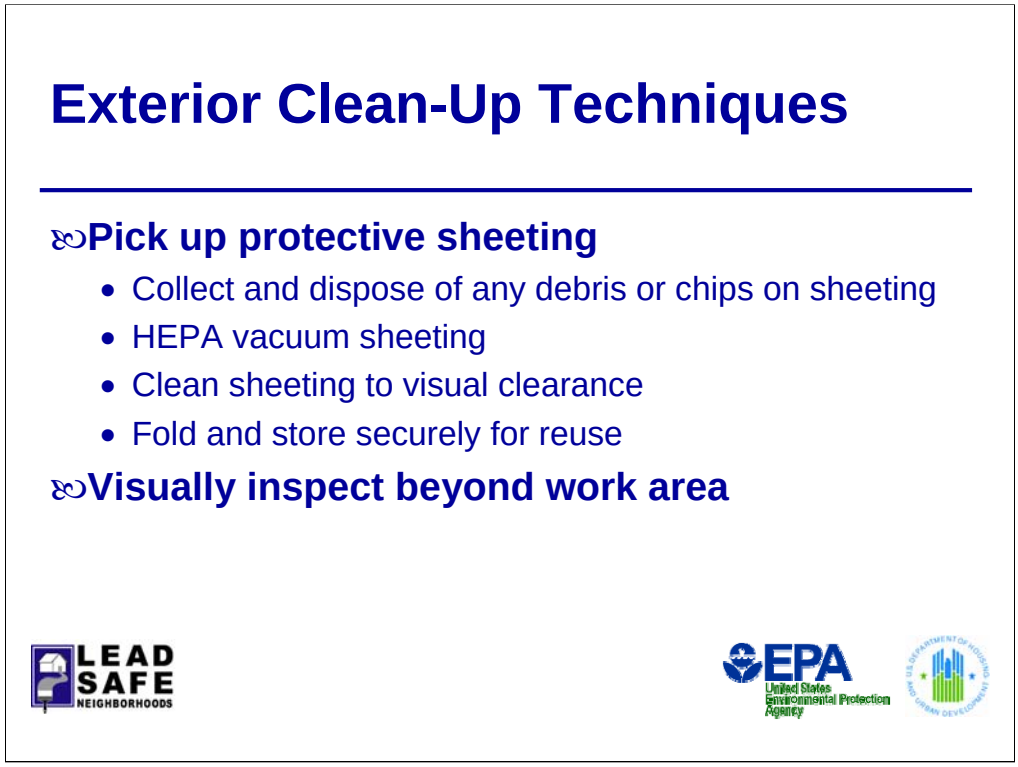
- After completing a high-dust job, such as power-sanding a painted surface, mist the entire work area to keep dust from spreading.

Visual inspection

- A thorough visual inspection of the work area should be conducted after any exterior job. Any visible paint chips, wood chips or other debris from the work area should be collected and disposed with the rest of your waste.
- Focus your visual inspection on areas where children may play or be exposed to lead contaminated dust or debris. Such areas include exterior porches, outside play areas, bare soil and ground, and window sills.

Remember

- Lead contaminated soil can poison children.
- Avoid dry raking or shoveling and spreading dust. However, raking and shoveling is appropriate if the soil is misted first.



Protective sheeting

- Use of screen mesh, screen tarp, or landscape fabric is recommended to cover vegetation. This material should be fine enough to collect all chips and debris. Although recommended to be disposed of after use, if you intend to reuse the protective sheeting it **must** be cleaned thoroughly and pass visual clearance before being securely stored for reuse.
- If protective sheeting will be disposed at the end of the job, it should be cleaned and disposed with the rest of your waste.

Specific exterior jobs

- If work takes place on an exterior porch or stairwell, HEPA vacuuming, wet cleaning and mopping, in addition to a thorough visual inspection, should be used to clean the work area. For such jobs the clean-up can be similar to clean-up after interior jobs. Collect and dispose of any dust or debris with the rest of your waste.

Checking your work

- A thorough visual inspection is the main part of checking your clean-up after an exterior job. You should collect and dispose of any visible paint chips, wood chips and debris found during the visual inspection. Child access areas include porches, play areas, bare soil or ground, and window sills.

- You may notice that the processes of clean-up and checking your work are similar for exterior jobs. A visual inspection is conducted once while cleaning and **again** after completing clean-up to check your work. Both visual inspections should be thorough and focus on collecting and disposing all visible paint chips, dust and debris.

Clearance on exterior jobs. For exterior jobs, HUD requires only a visual assessment of the work area to pass clearance. No dust or soil testing is required.

At the work site

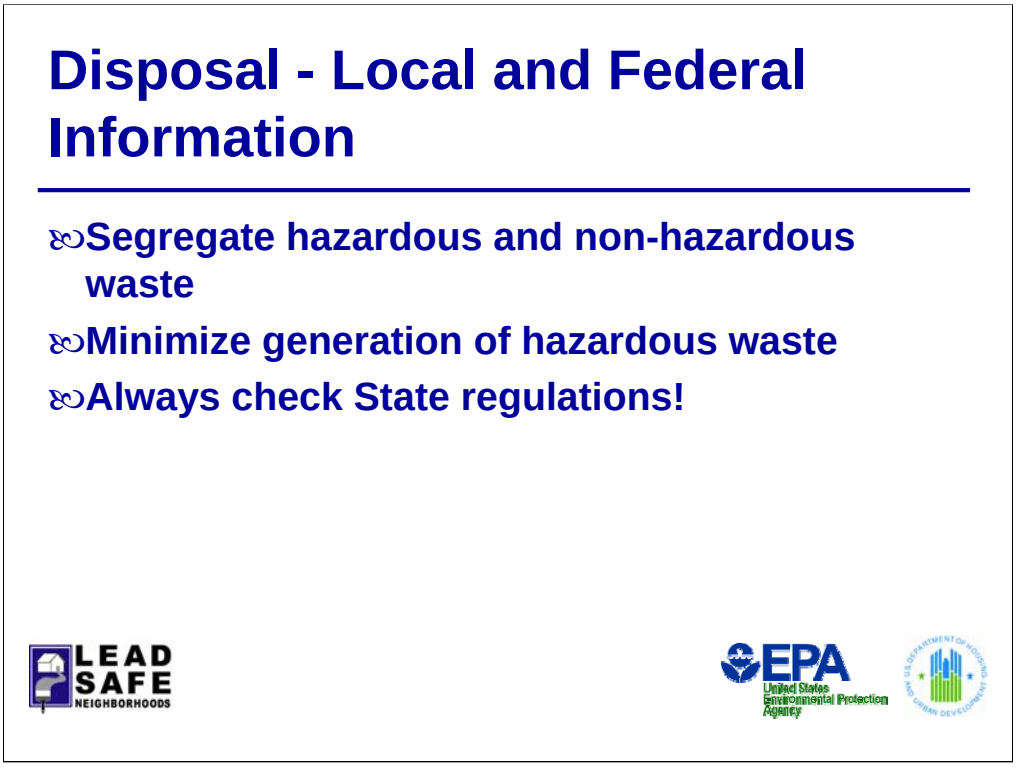
- Always collect, bag and seal your waste at the work site and in the work area. Do not carry your waste to another room or another area before bagging and sealing the waste. Store all waste in a secure container or dumpster until disposal. Limit on-site storage time. Avoid transporting waste in an open truck or personal vehicle. Some examples of waste include:
  - Protective sheeting
  - HEPA filters
  - All paint chips, dust and dirty water
  - Used cloths, wipes and mop heads
  - Any debris
  - Protective clothing, respirators, gloves
  - Architectural components

Waste water

- Water used for clean-up should be filtered and dumped in a toilet. Never dump this water down a sink, storm drain, on the ground, or in a tub. **Always be aware of State and local regulations regarding waste water disposal.**

Remember

- If needed, "double-bag" your waste to help prevent the waste from escaping if the bag is cut or ripped.



Waste disposal issues

- Because the U.S. EPA considers most renovation and remodeling as "routine residential maintenance" the waste generated during these activities is classified as solid, non-hazardous waste and should be taken to a licensed solid waste landfill.
- You should determine whether you generate more than 220 pounds of hazardous waste per job site per month. If you have less than 220 pounds per location per month then manage this waste as solid, non-hazardous waste. If you generate more than 220 pounds of hazardous waste you should contact your State and local regulators to find out how to dispose of this waste properly.
- Some **possible** examples of **hazardous waste** may include: paint chips; vacuum debris; sludge or chemical waste from strippers; and HEPA filters.
- Some **possible** examples of **non-hazardous waste** may include: disposable clothing; respirator filters; rugs and carpets; protective sheeting; and solid components with no peeling paint. Please list and suggest any other examples.
- All waste should be handled carefully and sealed in heavy duty heavy duty plastic bags.
- Large architectural components should be wrapped and sealed in plastic sheeting and disposed along with your waste.

Remember

- Some states have enacted more stringent waste management and disposal regulations.
- Supervisors must be aware of State regulations concerning hazardous and solid waste management and disposal.

Disposal - Local Information

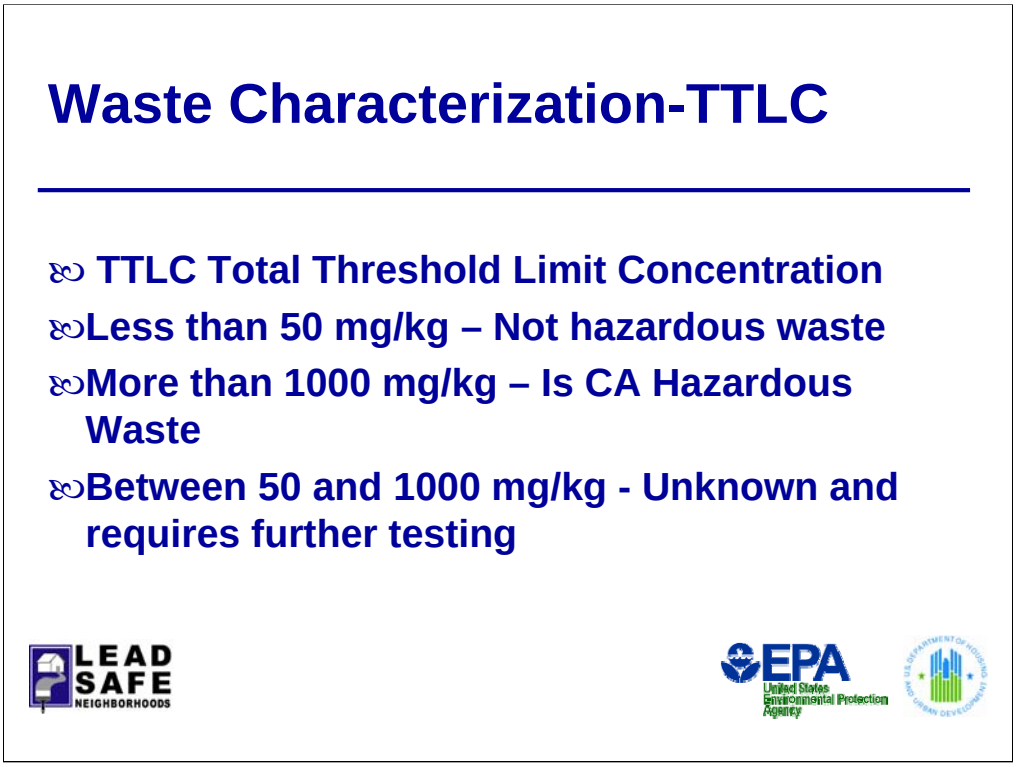
- **Home owners can dispose of up five gallons of lead paint chips at the City's permanent hazardous waste facility. Call (858) 694-7000 for an appointment.**
- **Contractors: Hire a hazardous waste transporter to dispose of waste if concentrations exceed Title 22 levels**

Waste disposal issues

- Because the U.S. EPA considers most renovation and remodeling as "routine residential maintenance" the waste generated during these activities is classified as solid, non-hazardous waste and should be taken to a licensed solid waste landfill.
- Home owners who perform their own remediation can dispose of up to five gallons of lead-based paint chips at the City's permanent Hazardous Waste facility. This waste must be from the homeowners primary home, not rental property.
- If you intend to use the permanent Hazardous Waste facility, please remember to call (858) 694-7000 to schedule an appointment
- You should determine whether you generate more than 220 pounds of hazardous waste per job site per month. If you have less than 220 pounds per location per month then manage this waste as solid, non-hazardous waste. If you generate more than 220 pounds of hazardous waste you should contact your State and local regulators to find out how to dispose of this waste properly.
- Some **possible** examples of **hazardous waste** may include: paint chips; vacuum debris; sludge or chemical waste from strippers; and HEPA filters.
- Some **possible** examples of **non-hazardous waste** may include: disposable clothing; respirator filters; rugs and carpets; protective sheeting; and solid components with no peeling paint. Please list and suggest any other examples.
- All waste should be handled carefully and sealed in heavy duty heavy duty plastic bags.
- Large architectural components should be wrapped and sealed in plastic sheeting and disposed along with your waste.

Remember

- California may enact more stringent waste management and disposal regulations than the federal requirements.
- Supervisors must be aware of State regulations concerning hazardous and solid waste management and disposal.

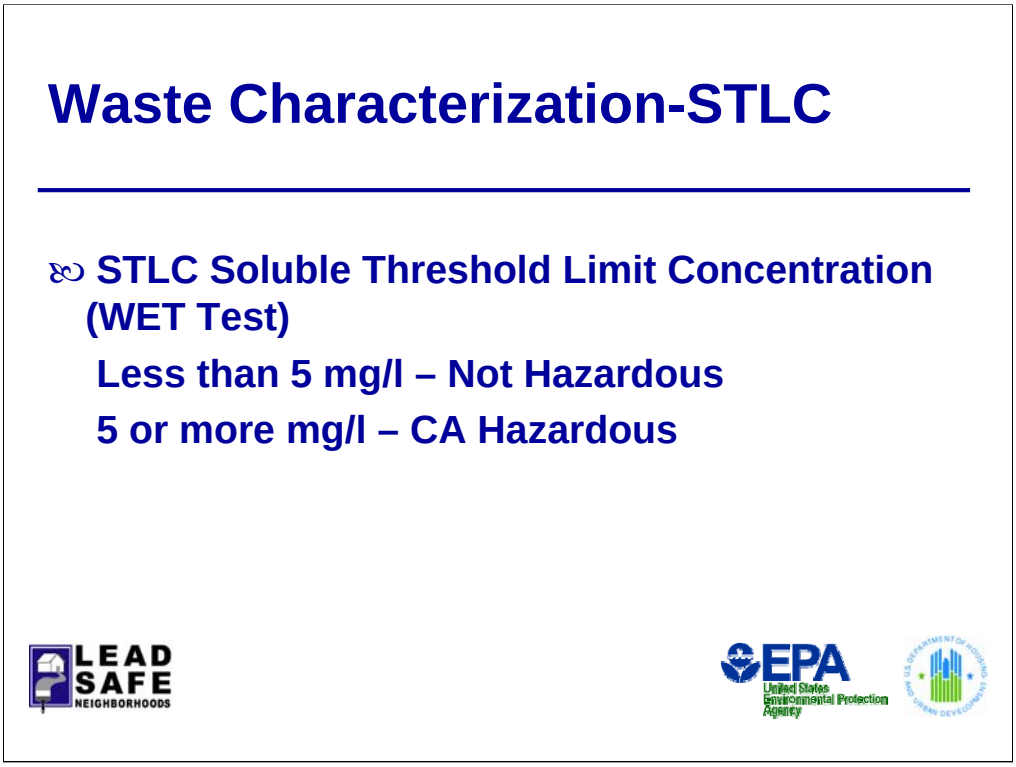


Waste disposal issues

TTLC is used to characterize waste before disposal. This one step to determine if the waste is California hazardous waste.

Remember

- California may enact more stringent waste management and disposal regulations than the federal requirements.
- Supervisors must be aware of State regulations concerning hazardous and solid waste management and disposal.



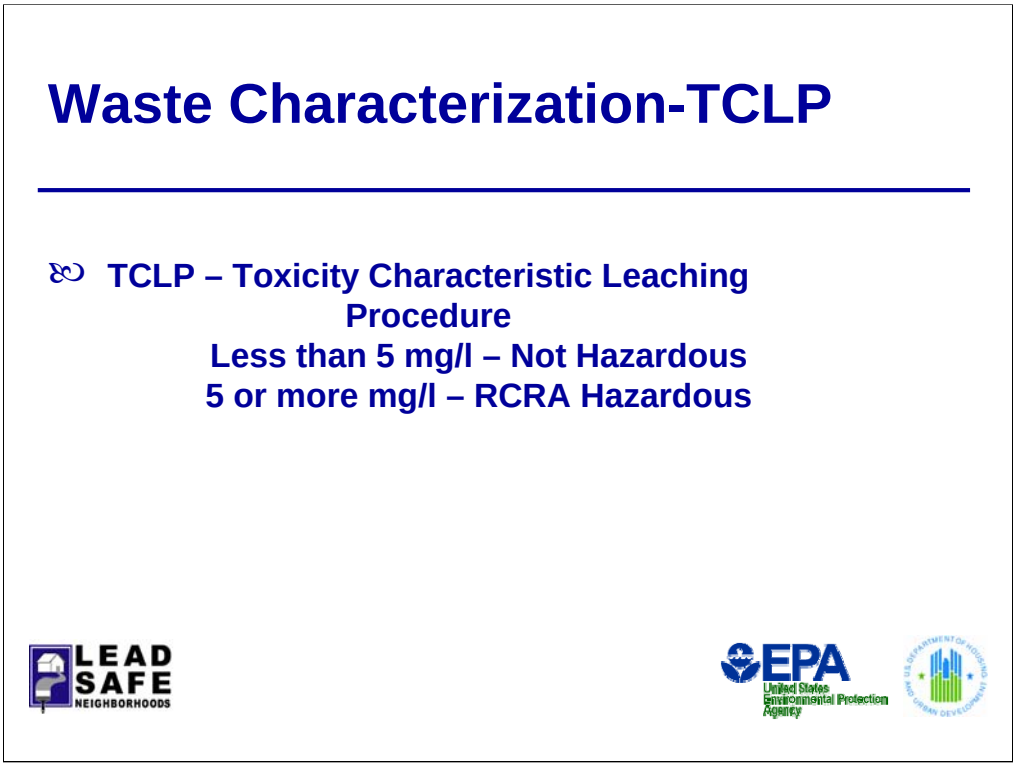
Waste disposal issues

STLC is a test to determine if the waste can leach lead into the groundwater. This also is for California hazardous waste.

If material was identified as CA Hazardous Waste – Test to see if this is considered RCRA (Federal) Hazardous Waste. l.

Remember

All local state and federal regulations must be followed. Certain municipalities may have more stringent regulations on waste disposal than others. Always check with local authorities to make sure you are in compliance.

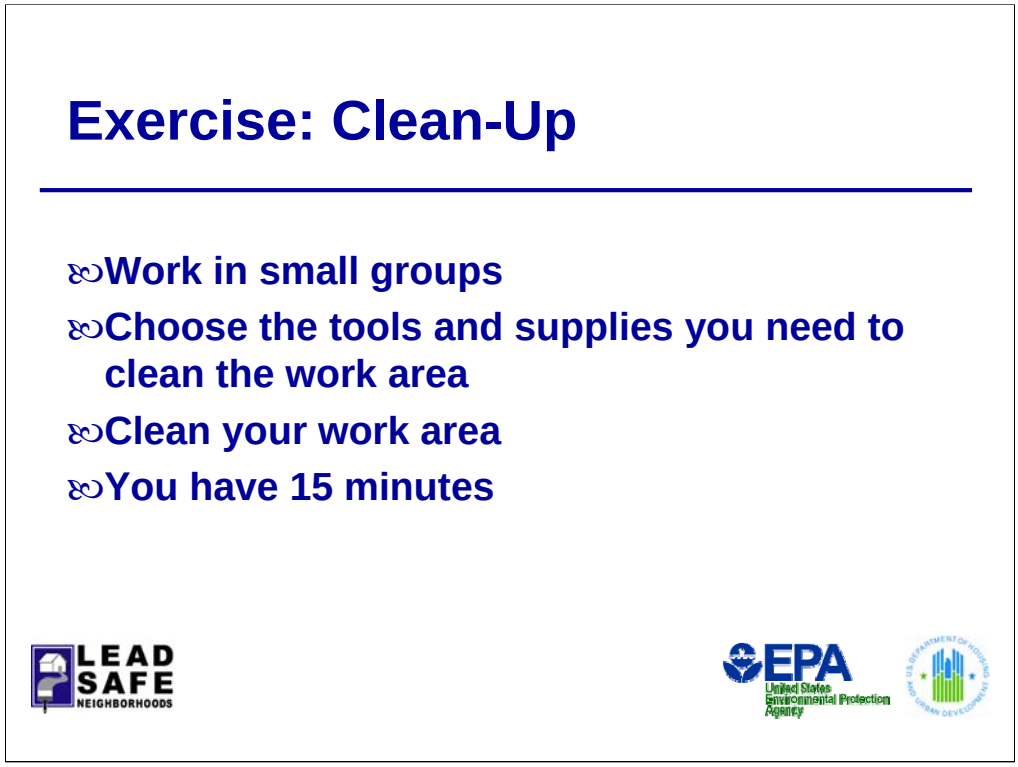


Waste disposal issues

TCLP is a test to determine if the waste if considered RCRA waste (Resource Conservation and Recovery Act) this is for federal waste.

Remember

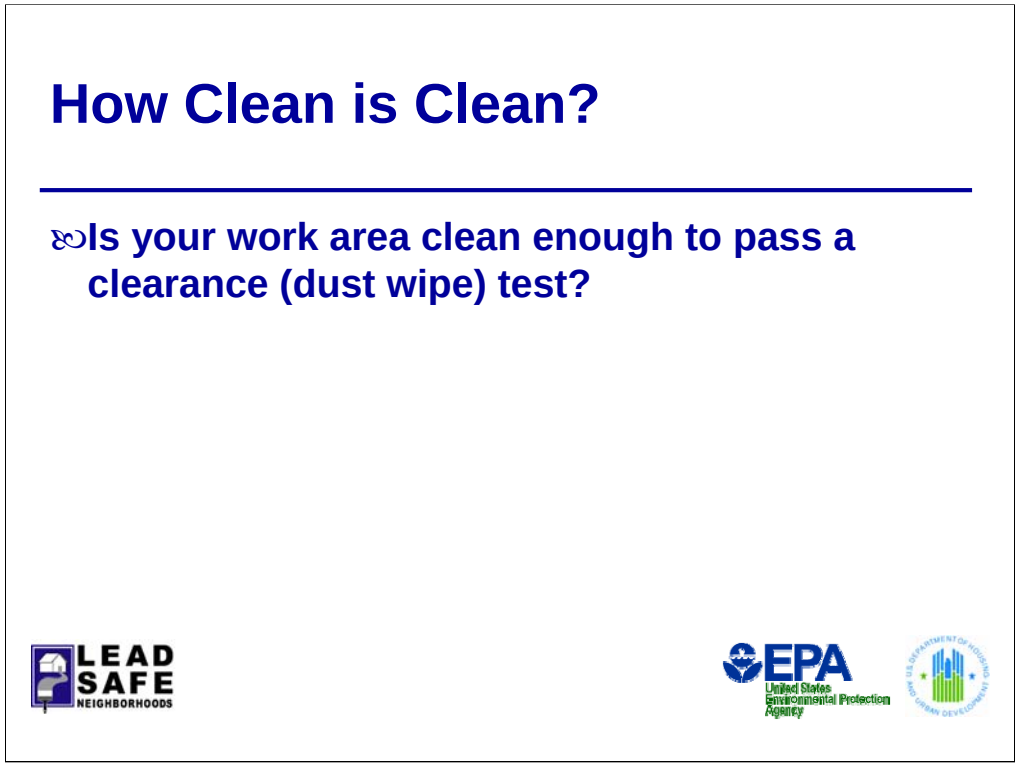
- California may enact more stringent waste management and disposal regulations than the federal requirements.
- Supervisors must be aware of State regulations concerning hazardous and solid waste management and disposal.



Work Practices

This exercise gives you a chance to demonstrate clean-up. The slide provides basic instruction.

- Stay in your groups of 2 or 3, in your work area
- Choose the right tools. Tools available include: buckets, mops, water, detergent, HEPA vacuum, wipes, plastic sheeting, plastic bags, tape, etc.
- Clean up that dust.

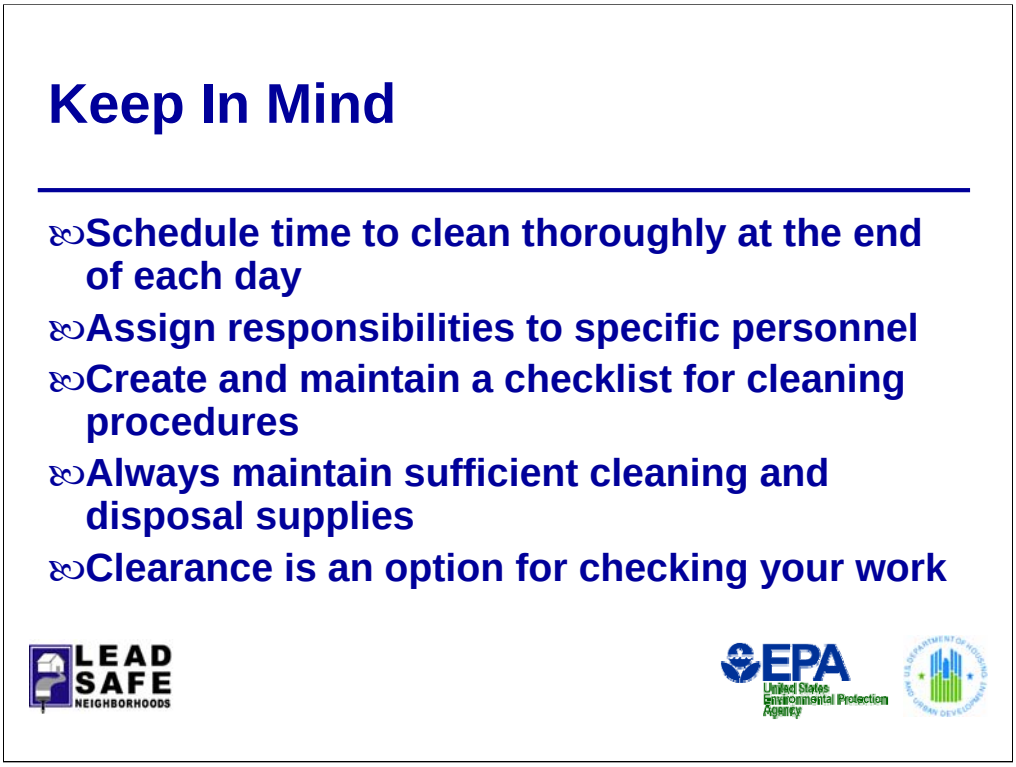


Work Practices – A debrief

- Consider the question above. Can you see dust? Do you think if you ran a baby wipe across the floor it would come up clean?
- Lead dust clearance levels for **California**
- Floors 50 ug/ft^2
- Interior Window Surfaces 250 ug/ft^2
- Exterior Horizontal Window and Floors 800 ug/ft^2
- Soil play area 400 ppm
- Other 1000ppm

- Lead dust clearance levels for **EPA**
- Floors 40 ug/ft^2
- Window sills 250 ug/ft^2
- Window Troughs 400 ug/ft^2
- Soil play area 400 ppm
- Soil yard average 1200 ppm

ALWAY USE THE MOST STRINGENT STANDARD

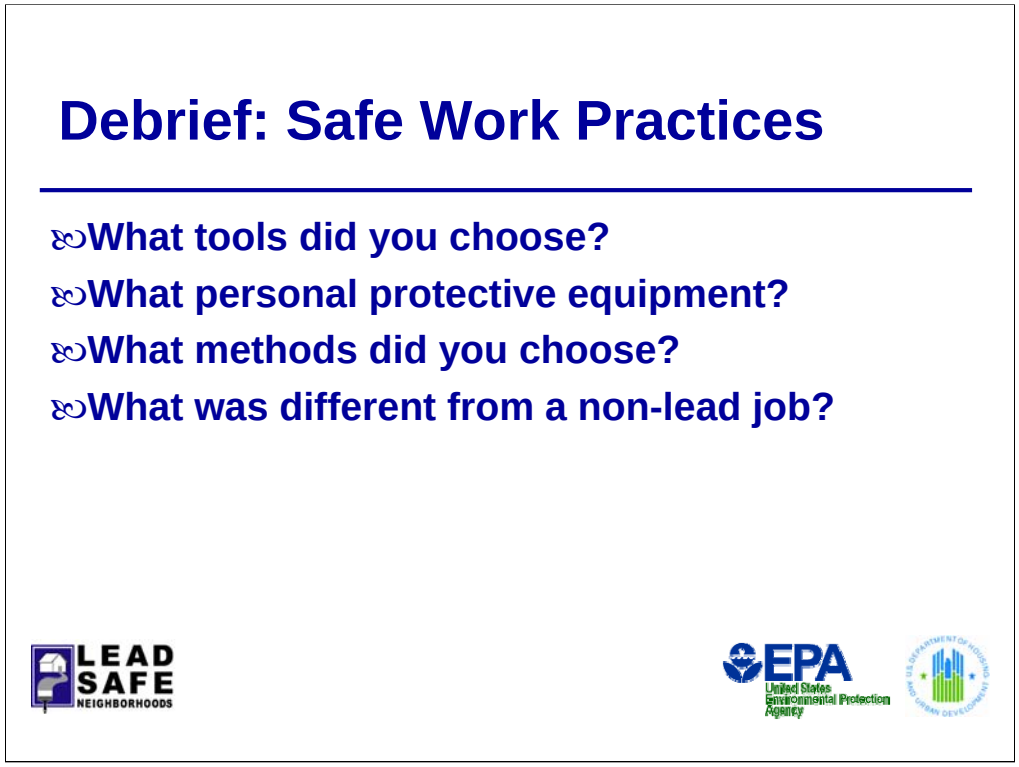


Example check list for cleaning procedures

The list below is an example checklist for cleaning procedures. You may wish to add to or modify it to fit your needs.

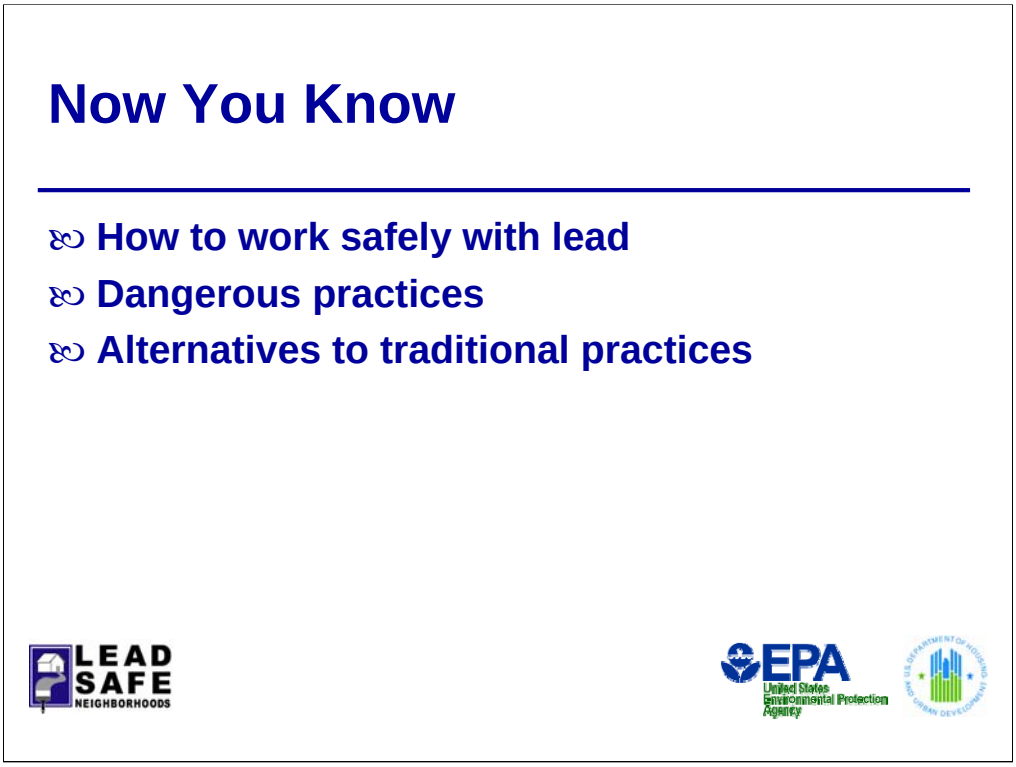
- Was the work completed?
- Have all visible paint chips, dust and debris been removed and disposed?
- Was the protective sheeting folded, sealed, and disposed?
- Was the interior work area HEPA vacuumed?
- Were all surfaces wet cleaned? Was the floor cleaned last?
- Was the interior work area HEPA vacuumed again?
- Was all waste placed safely in heavy duty plastic bags?
- Were all bags properly sealed?
- Was all waste disposed in accordance with State and Federal regulations?
- Was a visual inspection completed?
- Were clearance (dust wipe) samples taken?
- Is the property owner satisfied?

Remember, even if you do not conduct clearance (dust wipe) testing at the end of a job, you will want to clean to a level that would pass clearance. This means a very thorough cleaning.



Work Practices – A debrief

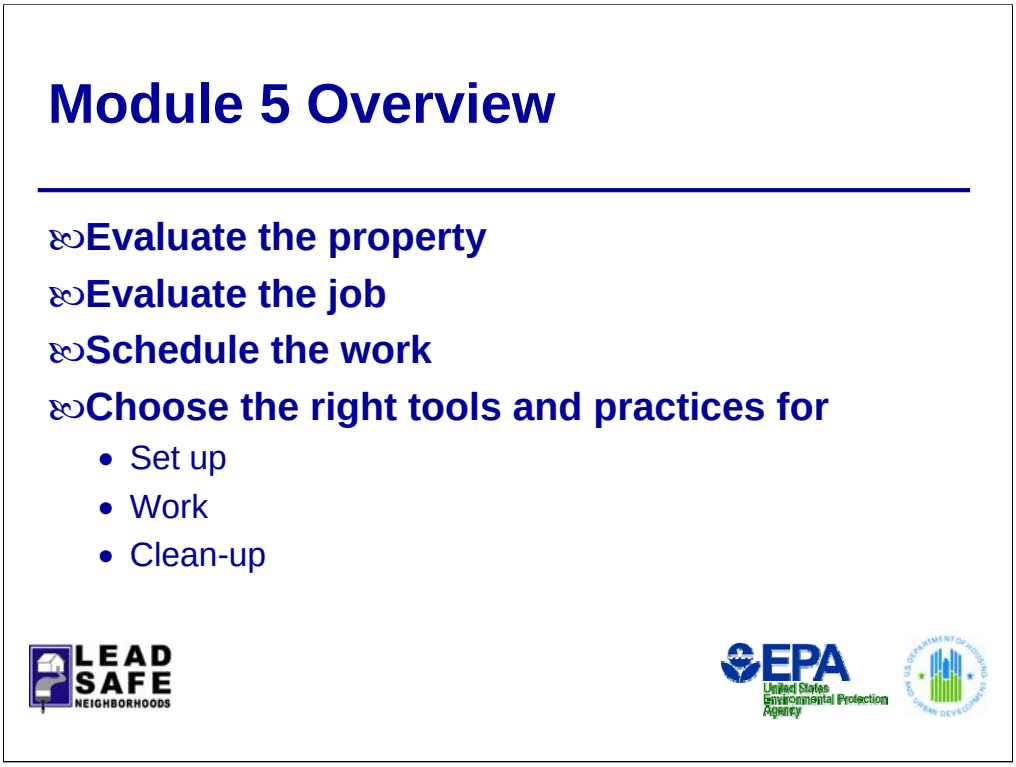
Consider the questions above. Discuss as a large group.



The practices you learned in this module will help you make less dust as you work.

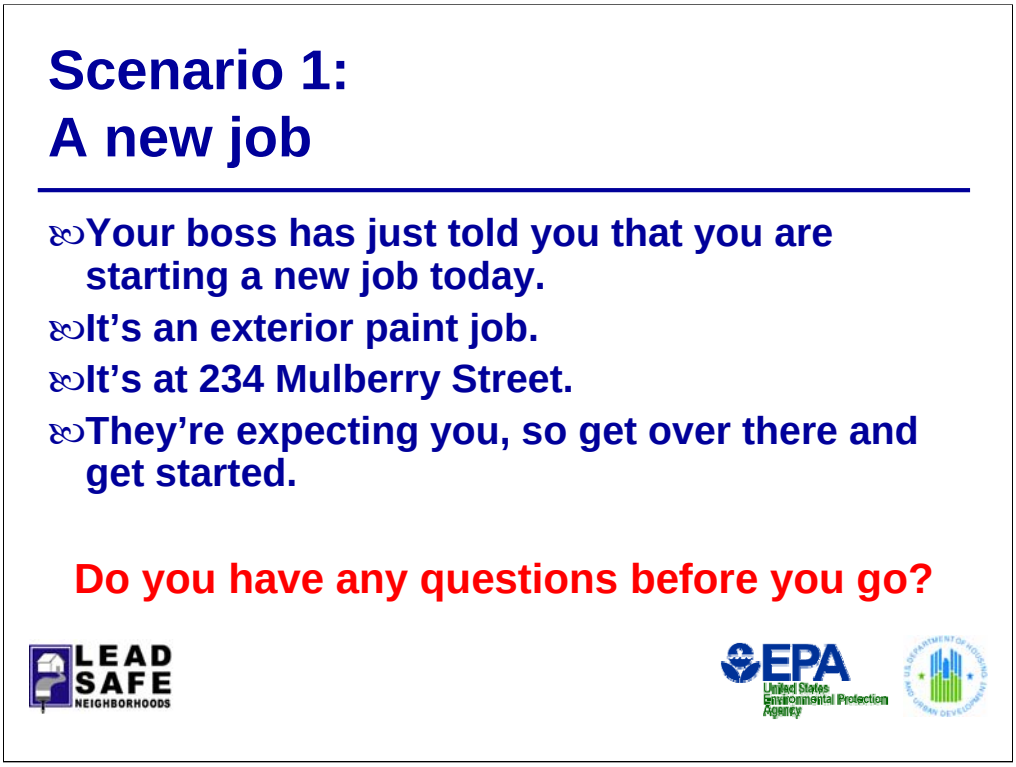
In the next module, we'll talk about how to clean up properly so that no dust is left behind when the job is done.

Module 5
Planning the Job



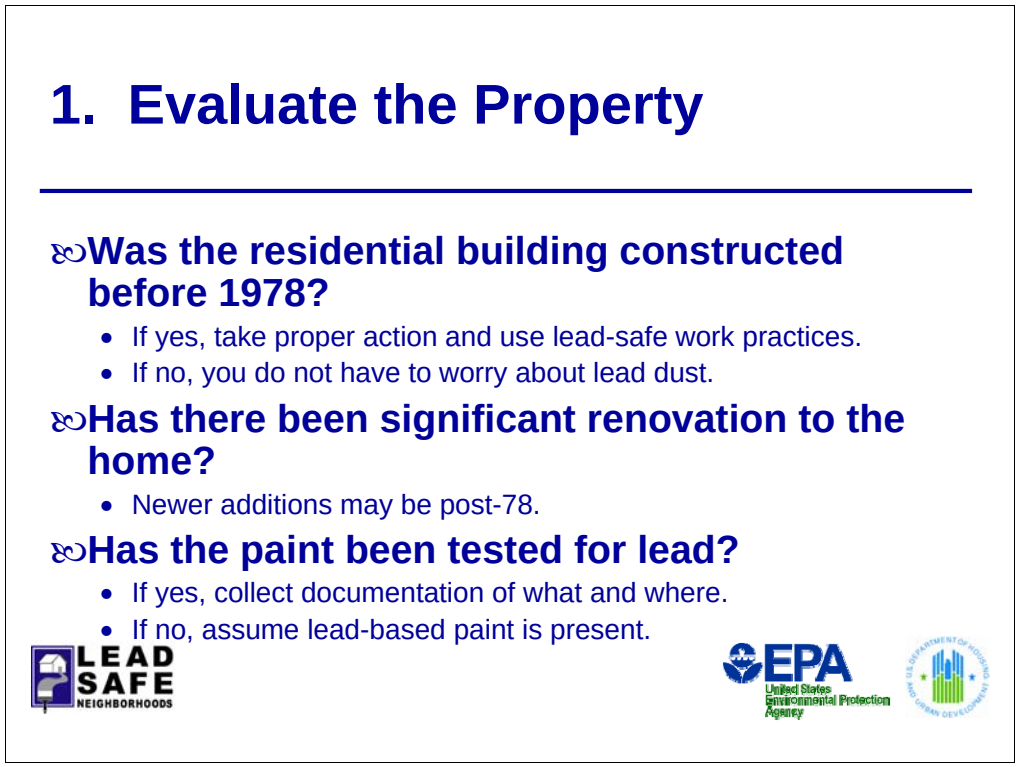
Module Overview

- This module pulls all the topics previously discussed together and walks you through a job from start to finish to help you plan your job and do it right from the start.



Scenario: A first look at the house.

- Read the scenario.
- As a large group, consider the question posed. You have no information about the house. What kinds of questions come to mind?



Evaluating the Property

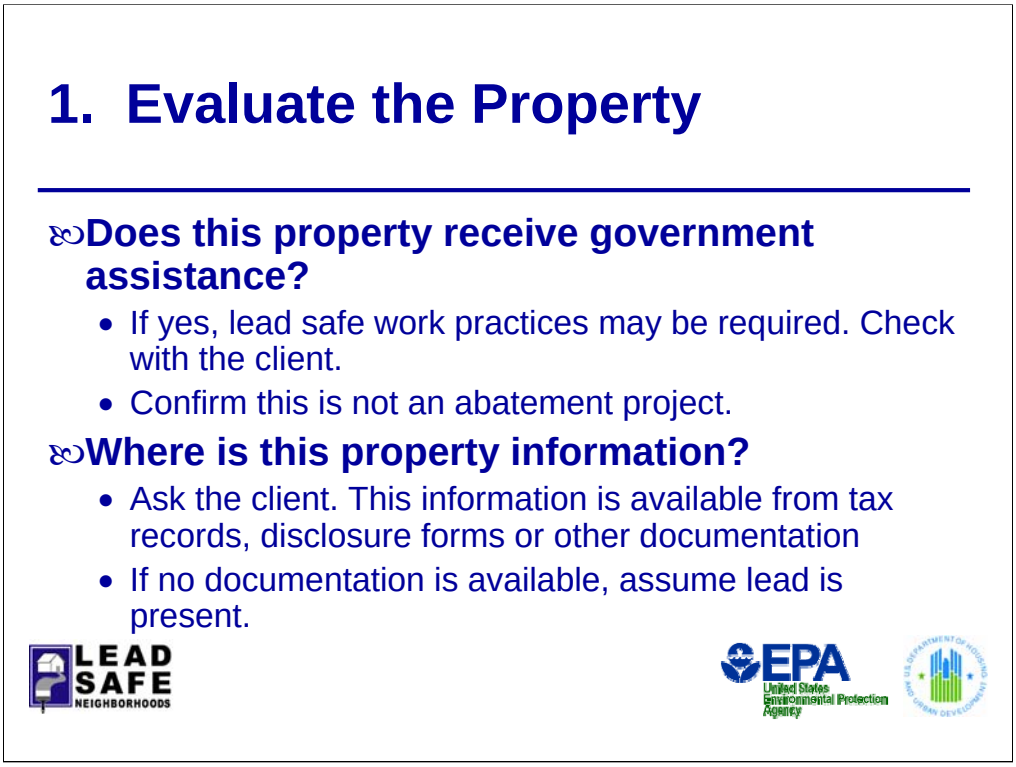
This slide highlights the questions to answer about a property before you do any work there.

- **Was the property constructed prior to 1978?** The majority of buildings constructed before 1978, especially those constructed prior to 1960, contain some lead-based paint. Unless otherwise documented, you should always assume that painted surfaces from pre-1978 houses include lead-based paint and that all dust generated from these surfaces may contain lead. Although the amount of lead-based paint found in homes varies, older dwellings typically have more lead-based paint. For pre-1950 properties, you should assume that lead-based paint is present on most painted surfaces. Some localities may have restricted lead-based paint prior to 1978.

- **Has there been significant renovation?** If all of your work will be conducted in an addition to the dwelling that was constructed after 1978 or in a home that was gutted and renovated after 1978, you do not need to utilize lead-safe work practices in the parts of the home that were built/renovated after 1978 . You should ask the resident for information about significant renovations. If the resident does not know when the renovation took place, and the property was constructed prior to 1978, you should assume all painted surfaces contain lead-based paint.

- **Has the property been tested for lead?** Lead testing will tell you if there is lead in the property. If the resident has documentation that a certified inspector or risk assessor performed a lead evaluation and found that no lead-based paint is present in the work area, you do not have to utilize lead

HUD's Lead Safe Housing Rule does not provide an exemption for additions built after 1978 unless the surfaces to be disturbed are tested for lead and are found not to be painted with lead-based paint. Therefore, when working in a Federally assisted or Federally owned dwelling, workers should use lead safe work practices in all parts of the unit including additions unless testing has shown that the surfaces they will disturb are not painted with lead-based paint.

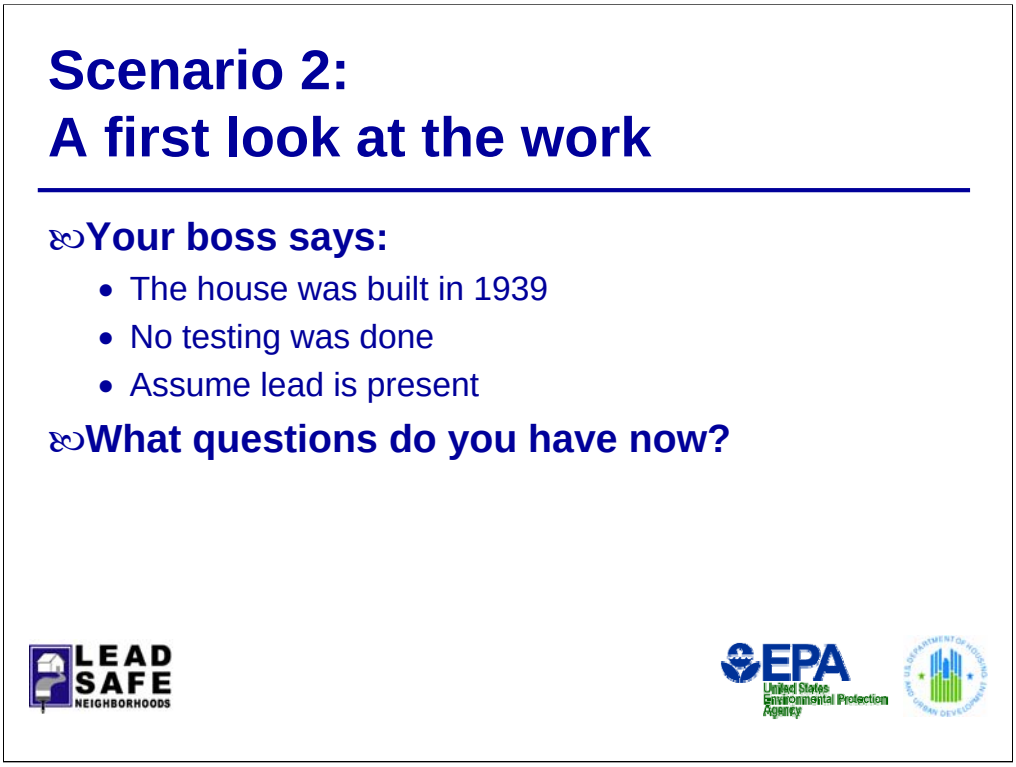


Evaluate the Property

In addition to the questions on the previous slide, the job supervisor should determine if there are any special requirements for the work related to Federal housing funds.

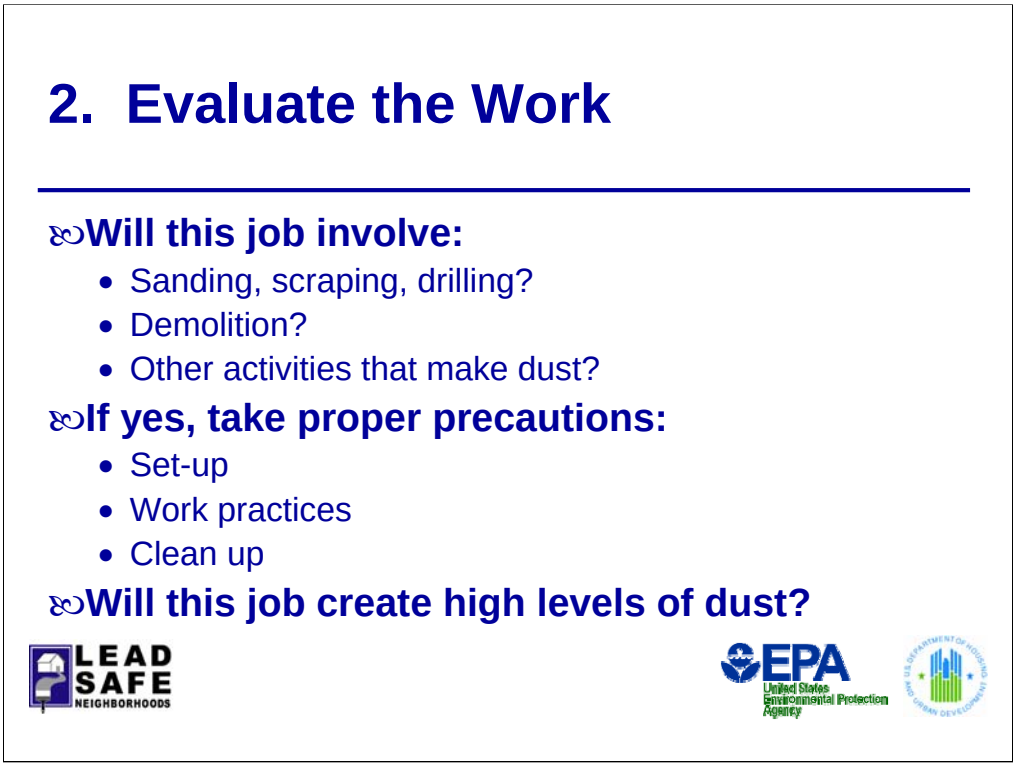
Is the property assisted with Federal, State, local, or tribal funds? If the property is assisted, the job may require the practices learned in this course. Talk to your client about any work requirements and confirm that this is not an abatement job that requires a certified abatement contractor. (See Appendix 1 and Appendix 3 for more information on Federal requirements.)

Where is this property information? The client should be able to answer all four of the questions we just discussed. If they can't, they should be able to find that information through tax records, the disclosure forms they received when purchasing the property, and other documents.



Scenario: A first look at the job

- Now you know the age of the house. How does that affect your actions?
- As a large group, consider the questions posed.



Evaluate the work

This slide lists the kinds of questions to consider when planning the actual work.

Will the work involve scraping, sanding, or other activities that make dust?

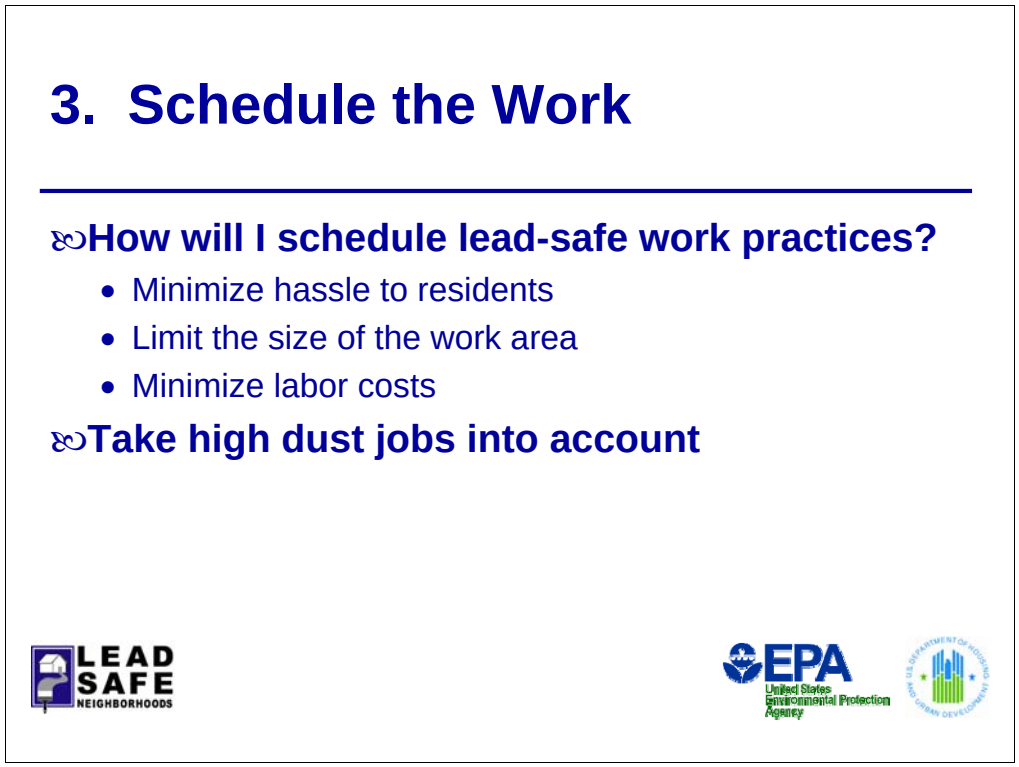
- All renovation, remodeling, and painting activities that disturb painted areas, including scraping paint, removing siding, replacing windows, will create some dust. Additionally, some areas, such as window troughs and loose areas near a building's foundation, typically accumulate dust and paint chips. You must consider these factors when approaching the job and develop an appropriate plan to deal with the potential lead dust. If your work will NOT disturb ANY painted surfaces or areas where lead dust can accumulate, you do not have to use lead-safe work practices.

What precautions are needed?

- The amount of dust created is directly related to the size of the work area, condition of the structure, and tools, materials, and dust control methods used. Previous modules presented descriptions of the necessary precautions you should take while setting up the work areas, performing renovation, remodeling, or painting activities, and cleaning up.

If the job will disturb painted surfaces, will it create high levels of dust that will cause you to take extra precautions?

- As highlighted in previous modules, some projects create more dust than others. Major renovation work, such as demolition, or removing old paneling, siding, windows, or wall-to-wall carpeting, can create high dust levels. Additionally, surfaces with deteriorated or chipped paint are more likely to generate high levels of dust than intact surfaces. The level of dust a job will create directly affects other parts of your job, including the materials and equipment required, precautions taken during set up, and the control methods used.



Scheduling the job

This slide reviews considerations for the scheduling of work.

How will I schedule the lead safe work practices?

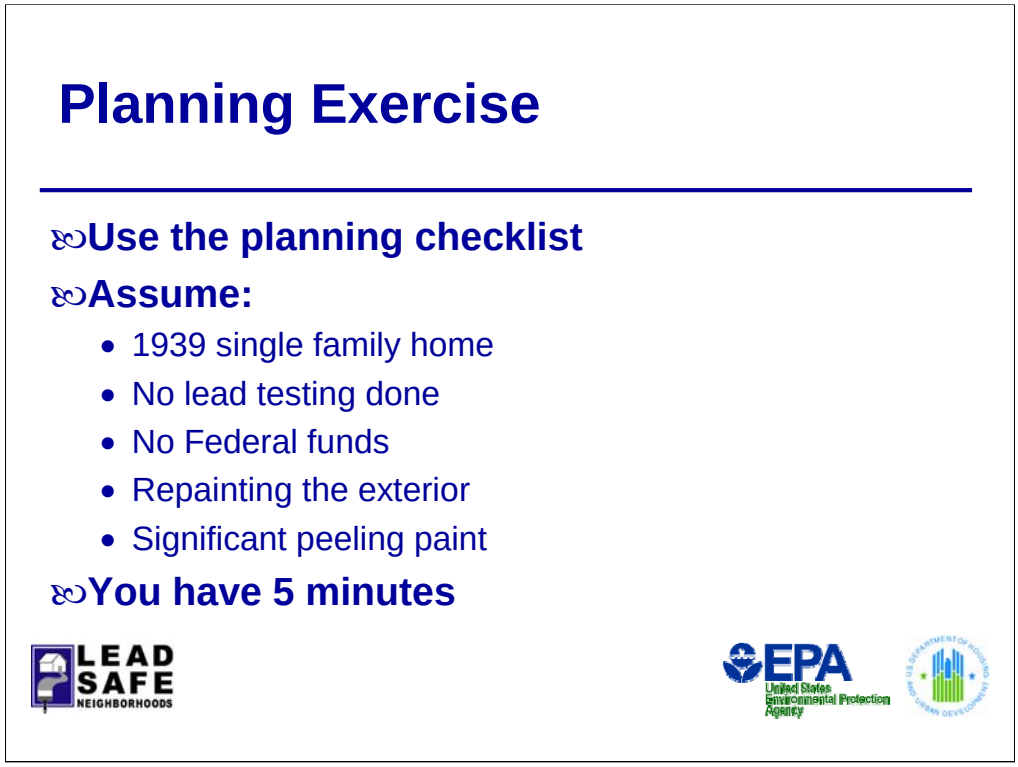
- When scheduling lead safe work practices, you should keep three goals in mind:
  Minimize the hassle to the residents
  Limit the size of the work area
  Minimize extra labor costs

- In many cases, it is preferable to complete lead hazard control activities before beginning other renovation, remodeling, or painting activities. This will minimize the possibility of distributing lead dust outside of the work area. This may also allow most of your work to be done using traditional methods - without the precautions necessary when working with lead-based paint - thereby simplifying the coordination of other project-related activities. It would also minimize the disruption for to the residents by reducing the areas of the house they should not enter because lead dust activities are taking place.

- For large projects, it may make more sense to conduct lead safe practices at the beginning of each phase of the project. For example, if you are renovating all of the bathrooms in a house, you may work in one bathroom at a time. In this case, it makes sense to perform lead-safe work practices at the beginning of each individual renovation activity as opposed to at the beginning of the entire job.

Take high dust jobs into account.

- High dust jobs take more planning and may have a greater impact on your schedule. Some considerations for high dust jobs are:
  Consider how the containment of the high dust job will affect the residents. Try to minimize the time residents are restricted.
  If they cannot have access to parts of their home, it may be a good idea to move them out temporarily.
  Try to perform all high dust work at the same time.
  If possible, set up a dust room and do all high dust work in one location.



Planning Exercise

1. Use the checklist provided on the next pages on your manual when planning a job.
2. To practice, read the assumptions on the slide and fill out the checklist.
3. Note, a blank copy of this checklist is in your notebook in Appendix 2 if you ever want to make copies.
4. You have 5 minutes to fill out the checklist.

Planning – What did you learn?

- Does this job need special practices? Why?
- Are they required or recommended?
- What tools did you choose? Why?
- How would your list change if this were an interior job?
- What if this were a smaller job?

LEAD SAFE NEIGHBORHOODS

EPA United States Environmental Protection Agency

As a large group, discuss the questions above.

Now you know

How to plan for a job

- **Evaluation the property**
- **Evaluation the work**
- **Schedule the work**
- **Choose the right tools and work practices**
  - Set up
  - Doing the work
  - Clean up

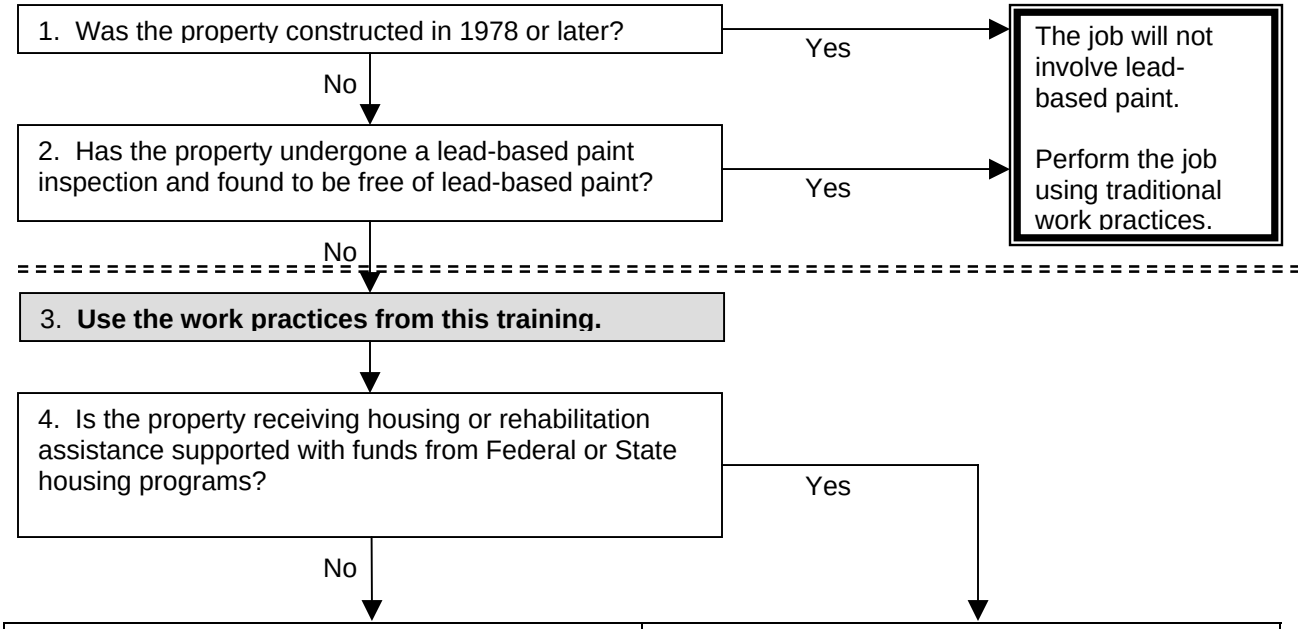
LEAD SAFE NEIGHBORHOODS

EPA United States Environmental Protection Agency

Now you know how to plan for a job. Go forth and do good work.

Appendix 1

APPENDIX 1: Flowchart for Planning a Remodeling, Repair, or Painting Job



5. Determine if there are State, local, or tribal lead-based paint requirements that apply to the property and the work to be performed.**

   If YES:
   - ✓ Supervisors - Make sure that the work write-up and job specifications address these requirements.
   - ✓ Workers - Check with your supervisor to find out how the requirements affect the job.

6. Plan the work to follow the practices presented in this training for:
   - ✓ Setting up the work area to contain dust and debris, & restrict occupant access
   - ✓ Minimizing dust during the job
   - ✓ Cleaning up effectively at the end of each day & at the end of the job
   - ✓ Safely disposing of waste and debris

5. Contact the agency providing the housing or rehabilitation assistance & determine if there are Federal, State, local, or tribal program requirements about lead-based paint that apply to the job.

   If YES:
   a) The agency providing the assistance will ensure that the work write-up for the job addresses the applicable requirements.

   b) Supervisors & workers should make sure that they understand the requirements so they can follow them effectively.

   Possible requirements include:
   - ✓ Worker training in lead safe work practices (or supervisor certification)
   - ✓ Occupant protection/relocation
   - ✓ Prohibited practices
   - ✓ Clearance testing at end of the job

6. Also determine if State, local, or tribal lead-based paint requirements apply to the property and the work to be performed.**

   If YES:
   - ✓ Supervisors - Make sure that the work write-up and job specifications address these requirements.
   - ✓ Workers - Check with your supervisor to find out how the requirements affect the job.

7. Plan the work to follow the practices presented in this training.

** *Note: At least annually, supervisors should check with State and local agencies for changes in these requirements.*

Types of Lead-Based Paint Requirements for Residential Properties Assisted Through Federal or State Supported Housing & Rehabilitation Programs -

The following types of requirements may apply to renovation, remodeling, rehabilitation, painting or maintenance work performed in pre-1978 residential properties that receive financial assistance from Federal, State, local, or tribal housing programs.

If a property receives housing assistance or rehabilitation assistance, contact the State, local, or tribal agency administering the assistance to find out what specific requirements, if any, apply to the work planned for the property.

- **Worker Training Requirements**. When lead safe rehabilitation, maintenance, or interim controls is performed, each worker generally needs to have successfully completed a HUD-approved lead safe work practices training. Successful completion of this course meets this requirement.

  This requirement can also be satisfied if the supervisor for the work is properly certified as a lead-based paint abatement supervisor and ensures that safe work practices are followed. In this case, workers on the job are not required to have completed an approved course, but they are required to have OSHA Hazard Communication Training.

  Some States and State-supported housing programs have additional or more stringent training requirements.

  NOTE: If abatement of lead-based paint hazards is required by a program providing assistance to a property, additional specialized training and certification is required for the supervisors and workers who perform these activities.

- **Work Area Containment.** Workers and supervisors will fulfill most containment requirements triggered due to Federal assistance by following the work practices presented in this course to prevent dust and debris from spreading beyond the work area or contaminating an occupant's possessions. (See Module 2.)

- **Occupant Protection.** If workers and supervisors restrict occupant access to the work area until the work is complete and clearance achieved (if required), most containment requirements triggered due to Federal assistance will be satisfied. For some jobs, occupant relocation may be necessary, but this decision will be made by the public agency administering the assistance to the property.

- **Prohibited Work Practices.** If a property receives housing or rehabilitation assistance supported with Federal funds, **workers are prohibited from using the work practices identified as high-risk** in Module 3 of this training. State, local, or tribal laws may prohibit additional practices.

- **Cleanup & Clearance.** Workers must use the specialized cleaning practices presented during Module 4 of this training. For many jobs in properties that receive housing or rehabilitation assistance supported with Federal funds, a clearance examination (i.e., dust testing) must be performed at the end of the job. If the area tested fails the clearance exam, the work area and the dwelling units affected must be cleaned again and re-tested. (See Module 4.)

See Appendix 3 for more information about Federal lead-based paint requirements, including requirements about safe work practices.

How To Find Out About Lead-Based Paint Requirements that Apply to Planned Work in Properties Receiving Housing or Rehabilitation Assistance

For each job, supervisors should take the following steps to find out whether:

- The property receives financial assistance; and
- Any lead-based paint requirements apply to the work because of the assistance provided.

  Note: This is an important step because failure to meet lead-based paint requirements could affect the owner's ability to receive the assistance.

1. If you or your company is contacted about the job by the housing agency providing assistance to the property, ask the program specialist or rehabilitation specialist working with the property the questions listed in Question #3.

2. Ask the property owner if the property or the family receives any type of housing assistance, including low-interest loans, from a local, State, or Federal agency.

   - Find out the name of the agency, contact person, address and phone number. (See the list of types of agencies below.)
   - Get a basic description of the type of assistance the property receives.

   Note: If the property owner is concerned about why you are asking, just explain that there will be information about the work that you will need to provide to that agency and that you also need to check if there are any requirements of their program that apply to the work to be done.

3. Contact the public agency administering the assistance and ask the program specialist or rehabilitation specialist working with the property:

   a) Do any Federal or State lead-based paint requirements apply to the work?

   b) If YES, what are they and how will they be incorporated into the work write-up?

   c) If YES to a), are there any abatement requirements that apply to the job and who will perform that work?

Some Types of Public Agencies Administering Housing or Rehabilitation Assistance

- State Housing Finance Agency
- State Housing Agency
- State Community Development Agency
- City or County Housing Agency
- City or County Community Development Agency
- City or County Housing Authority
- USDA Service Center - Rural Housing Programs

Appendix 2

CHECKLIST: EVALUATING THE WORK

Evaluate the property		
1. Was the property constructed after 1978? or	1. Yes	No
2. If the work area is limited to an addition, was the addition constructed after 1978? *If yes, you are <u>not</u> required to perform lead safe work practices (unless the home receives housing assistance – see Question 4 below).*	2. Yes	No
3. Was testing conducted in this property? *If yes, collect any documentation and plan your work using the information.*	3. Yes	No
4. Is the property receiving assistance through a State, local, or Federal program? *If yes, ask if there are any special work requirements for the job and confirm that it is not an abatement job for a certified abatement contractor.*	4. Yes	No
Evaluate the job		
1. Will this work disturb painted surfaces or otherwise create or disturb dust that may contain lead? *If yes, use the safe work practices covered in this course and plan your schedule to accommodate the necessary lead safety measures. Use the attached list of supplies to plan your work.*	1.Yes	No
2. Is this a high dust job? *If yes, you must take the added precautions for high dust jobs as described in this course. Plan your schedule to accommodate the necessary lead safety measures. Use the attached list of supplies to plan your work.*	2. Yes	No

CHECKLIST: MATERIALS and SUPPLIES

Set up Tool Kit

Barriers

- ❑ Rope
- ❑ Barrier Tape (bright color preferable)
- ❑ Saw horses
- ❑ Orange cones or other similar marker
- ❑ Signs

Coverings

- ❑ Heavy duty plastic sheeting
- ❑ Disposable mesh (e.g., burlap, cheesecloth, landscaping mesh)
- ❑ Staple gun
- ❑ Tape (duct, painters, or masking)
- ❑ Utility knife or scissors

Other Items

- ❑ Tack pad
- ❑ Small disposable towels or wipes
- ❑ Misting bottle

Safe Work Practices Tool Kit

- ❑ Wet/dry sandpaper or sanding sponge
- ❑ Mist bottle or pump sprayer
- ❑ Chemical stripper
- ❑ Heat gun
- ❑ Heavy duty plastic sheeting
- ❑ Tape (duct, painters, or masking)
- ❑ Utility knife or scissors
- ❑ Heavy duty garbage bags
- ❑ Vacuum with HEPA filter

Specialized Tools

- ❑ HEPA exhaust attachments for power tools (sanders, grinders, planers, shavers)
- ❑ Power washing equipment
- ❑ Needle gun with HEPA exhaust

Personal Protection Equipment (PPE) Tool Kit

- ❑ Painter's hats
- ❑ Gloves
- ❑ Coveralls
- ❑ Disposable shoe covers
- ❑ N-100 disposable respirators or equivalent
- ❑ Pre-moistened disposable wipes
- ❑ Disposable hand towels (e.g., paper towels)

Additional Items to Consider

- ❑ First aid kit
- ❑ Safety glasses
- ❑ Ear protection (when using power tools)

Clean Up Tool Kit

- ❑ Misting bottle
- ❑ Vacuum with HEPA filter
- ❑ Heavy duty garbage bags
- ❑ Tape (duct)
- ❑ Detergent
- ❑ Two buckets or two-sided bucket
- ❑ Mop with disposable heads
- ❑ Disposable hand towels (e.g., paper towels)
- ❑ Pump sprayer
- ❑ Shovel and rake

Appendix 3

APPENDIX 3: U.S. Department of Housing and Urban Development (HUD) Requirements for Safe Work Practices

This appendix describes safe work practices required in HUD-funded work that disturbs known or presumed paint in housing built before 1978. The regulations can be found in the Code of Federal Regulations (CFR) at 24 CFR 35.1350. They can also be found through HUD's website at www.hud.gov/offices/lead. The brief summary of HUD's requirements provided here will be useful if you work now or will work in the future on HUD-funded rehabilitation projects or other Federally assisted housing projects.

In most cases, it is the responsibility of the agency (public, non-profit, or private) that administers the rehabilitation project or the individual / organization who accepts HUD funds to make sure that HUD's requirements are followed. However, the contractors who work on HUD-funded projects are required to know and use the proper practices for set up, safe work practices, and clean-up. Contractors should also cooperate with the agency and property owners to make sure that the job is carried out safely.

The HUD regulations that apply most to contractors who do routine renovation, remodeling and rehabilitation that is funded by HUD relate to:

- Training Requirements
- Occupant Protection;
- Safe Work Practices;
- Cleanup; and
- Clearance.

TRAINING REQUIREMENTS

Contractors who perform rehabilitation, maintenance, repainting, or interim lead-based paint hazard controls on most pre-1978 HUD-associated housing, and are disturbing paint that is known or presumed to be lead-based paint must have taken OSHA hazard communication training and a HUD-approved course in lead-safe work practices. If workers have not taken a lead safe work practices course they must be supervised by a certified lead-based paint abatement supervisor, who is responsible for assuring that the work is done safely and effectively.

There is an exception to the training requirement for jobs receiving no more than $5,000 per dwelling unit in Federal rehabilitation funds. In such cases, HUD requires the use of safe work practices, and the local recipient will ensure that the work is performed safely.

OCCUPANT PROTECTION

Contractors must take steps to protect occupants from lead-based paint hazards while the work is in progress.

- Occupants may not enter the worksite. Occupants are allowed to return only after the work is done and the home has passed a clearance examination that checks for deteriorated lead-based paint and harmful levels of lead-contaminated dust.

- Occupants' belongings must be protected from lead contamination. This can be done by removing them from the work area or covering them with protective sheeting and sealing it to prevent dust from getting on the items.

- The work site must be set up to prevent the spread of leaded dust and debris.

- Warning signs must be posted at entrances to the worksite when occupants are present; at the main and secondary entrances to the building; and at exterior work sites. The signs must be readable from 20 feet from the edge of the worksite. Signs must be in the occupants' primary language when practicable.

- It may be necessary to temporarily move occupants out of the unit if work will take several days and it involves kitchens, bathrooms, or bedrooms. This is the responsibility of the dwelling's owner.

SAFE WORK PRACTICES

HUD prohibits several work practices (see exhibit 1, below).The safe practices described in Module 3 of this training are good alternatives to the prohibited practices listed here. Safe work practices are not required:

• If paint has been tested and found not to be lead-based paint by an EPA or State certified risk assessor or inspector, or

• If the work disturbs a total painted surface area that is:

- Less than 20 ft.^{2} on exterior surfaces;

- Less than 2 ft.^{2} in any one interior room or space; or

- Less than 10 percent of the total surface area on an interior or exterior type of component with a small surface area like window sills, baseboards, and trim.

Exhibit 1: HUD Prohibited Work Practices

- Open flame burning or torching.
- Machine sanding or grinding without a high-efficiency particulate air (HEPA) local exhaust control.
- Abrasive blasting or sandblasting without HEPA local exhaust control.
- Heat guns operating above 1,100 degrees Fahrenheit, or those that operate high enough to char the paint.
- Dry sanding or dry scraping.
- Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance.

There are several circumstances when limited use of these prohibited methods is allowed under HUD regulations:

• Dry scraping in conjunction with heat guns;

• Dry scraping within 1.0 ft of electrical outlets;

• Dry scraping deteriorated paint spots that total no more than 2 ft.^{2} in any one interior room or space; or

• Dry scraping deteriorated paint spots that total no more than 20 ft.^{2} on exterior surfaces.

Note: Use of paint strippers with methylene chloride can be hazardous and is prohibited in poorly ventilated areas (such as when the concentration will exceed the permissible exposure limit for methylene chloride).

CLEANUP

Worksite clean-up removes dust and debris from the work area. Good clean-up is critical to passing the clearance exam and leaving the unit safe for habitation. Worksite clean-up must use methods, products, and devices that are successful in cleaning lead-contaminated dust, such as vacuum cleaners with HEPA filters or equivalent equipment, and wet cleaning with household or lead-specific detergents or equivalent products.

THE CLEARANCE EXAMINATION

Clearance is a process to test the work site to assure that any lead in dust in the work area after the work has been completed does not exceed HUD standards. It also assures that there is no deteriorated paint that might contain lead remaining in the work area. After the work is done and before the residents can return, the work area or unit must pass clearance. In a clearance examination, a qualified, third-party, clearance examiner:

- Performs a visual assessment of the worksite or unit to look for deteriorated paint and visible amounts of dust, debris, paint chips or other residue. If these are found in areas where dust sampling is required they must be eliminated before continuing the clearance examination. If deteriorated paint is found, it must be stabilized using safe work practices. If visible dust and debris is found, it must be cleaned up;

- Takes several dust wipe samples from floors, interior window sills (stools), and window troughs and sends them to a laboratory for analysis. If leaded dust above HUD standards are found, the worksite or unit must be re-cleaned and another dust clearance test conducted.

It is usually the responsibility of the organization or owner overseeing the work to arrange for the clearance. However, it is often the contractor who is responsible for cleaning sufficiently to pass clearance. Some agencies may state in the construction contract that if clearance is not passed the first time, the contractor will be held responsible for paying for an adequate second cleaning and clearance test.

- Clearance must be performed by a certified examiner (a risk assessor, lead-based paint inspector, or lead sampling/clearance technician, according to EPA or State requirements), or a trained lead sampling/clearance technician whose work is approved by a certified risk assessor or lead-based paint inspector. Certified sampling technicians cannot conduct clearance after lead abatement, but only after other lead hazard control activities like paint stabilization, interim controls, maintenance or rehabilitation. State requirements for sampling technicians may vary, so the State regulatory authority should be consulted.

- Contractors cannot perform clearance on their own jobs. The HUD regulations state that the person conducting the lead hazard reduction activities and clearance must be independent of each other. However, an organization or owner that is responsible for regulatory compliance may use a qualified in-house employee to conduct clearance if that same employee does not conduct both 1) a hazard reduction, rehabilitation, or maintenance activity and 2) the clearance examination.

Clearance Standards

If the test results equal or exceed the following standards, the dwelling unit, worksite, or common area fails the clearance examination.

- Floors: 40 µg/ft.^{2}

- Interior windows sills (stools): 250 µg/ft.^{2}

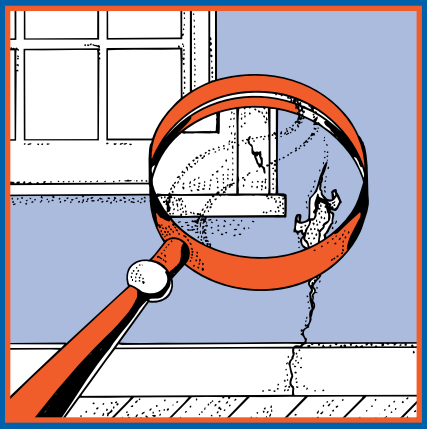
- Window troughs: 400 µg/ft.^{2}

Clearance is not required when:

- Maintenance or a lead hazard reduction activity at a worksite does not disturb painted surfaces; or

- If the total area of the painted surface disturbed does not exceed the following: (1) 20 ft.^{2} on exterior surfaces; (2) 2 ft.^{2} in any one interior room or space; or (3) 10 percent of the total surface area on an interior or exterior type of component with a small surface area like windowsills, baseboards, and trim.

Appendix 4



Protect Your Family From Lead In Your Home

United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

Simple Steps To Protect Your Family From Lead Hazards

If you think your home has high levels of lead:

- Get your young children tested for lead, even if they seem healthy.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat healthy, low-fat foods.
- Get your home checked for lead hazards.
- Regularly clean floors, window sills, and other surfaces.
- Wipe soil off shoes before entering house.
- Talk to your landlord about fixing surfaces with peeling or chipping paint.
- Take precautions to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).
- Don't use a belt-sander, propane torch, high temperature heat gun, scraper, or sandpaper on painted surfaces that may contain lead.
- Don't try to remove lead-based paint yourself.

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Printed with vegetable oil based inks on recycled paper (minimum 50% postconsumer) process chlorine free.

Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.

OWNERS, BUYERS, and RENTERS are encouraged to check for lead (see page 6) before renting, buying or renovating pre-1978 housing.

Federal law requires that individuals receive certain information before renting, buying, or renovating pre-1978 housing:

LANDLORDS have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure about lead-based paint.

SELLERS have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure about lead-based paint. Buyers have up to 10 days to check for lead.

RENOVATORS disturbing more than 2 square feet of painted surfaces have to give you this pamphlet before starting work.

IMPORTANT!

Lead From Paint, Dust, and Soil Can Be Dangerous If Not Managed Properly

FACT: Lead exposure can harm young children and babies even before they are born.

FACT: Even children who seem healthy can have high levels of lead in their bodies.

FACT: People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.

FACT: People have many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard.

FACT: Removing lead-based paint improperly can increase the danger to your family.

If you think your home might have lead hazards, read this pamphlet to learn some simple steps to protect your family.

Lead Gets in the Body in Many Ways

Childhood lead poisoning remains a major environmental health problem in the U.S.

Even children who appear healthy can have dangerous levels of lead in their bodies.

People can get lead in their body if they:

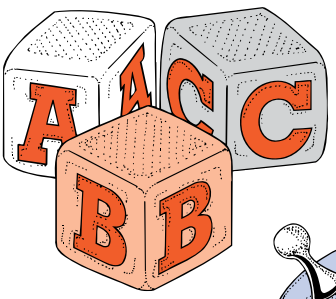
- Breathe in lead dust (especially during renovations that disturb painted surfaces).
- Put their hands or other objects covered with lead dust in their mouths.
- Eat paint chips or soil that contains lead.

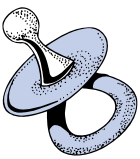
Lead is even more dangerous to children under the age of 6:

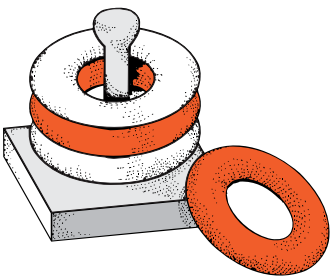
- At this age children's brains and nervous systems are more sensitive to the damaging effects of lead.
- Children's growing bodies absorb more lead.
- Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.

Lead is also dangerous to women of childbearing age:

- Women with a high lead level in their system prior to pregnancy would expose a fetus to lead through the placenta during fetal development.







Lead's Effects

It is important to know that even exposure to low levels of lead can severely harm children.

In children, lead can cause:

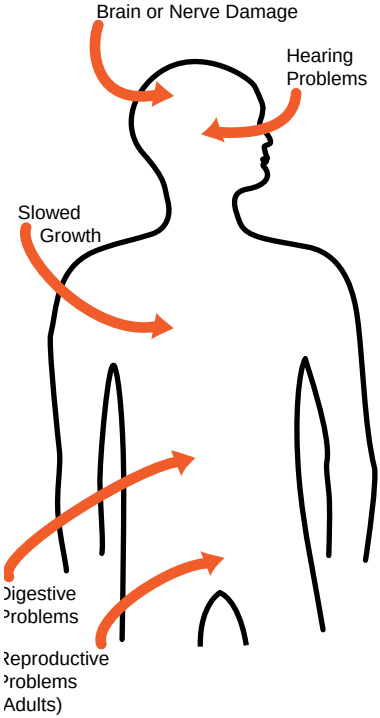
- Nervous system and kidney damage.
- Learning disabilities, attention deficit disorder, and decreased intelligence.
- Speech, language, and behavior problems.
- Poor muscle coordination.
- Decreased muscle and bone growth.
- Hearing damage.

While low-lead exposure is most common, exposure to high levels of lead can have devastating effects on children, including seizures, unconsciousness, and, in some cases, death.

Although children are especially susceptible to lead exposure, lead can be dangerous for adults too.

In adults, lead can cause:

- Increased chance of illness during pregnancy.
- Harm to a fetus, including brain damage or death.
- Fertility problems (in men and women).
- High blood pressure.
- Digestive problems.
- Nerve disorders.
- Memory and concentration problems.
- Muscle and joint pain.



Lead affects the body in many ways.

Where Lead-Based Paint Is Found

In general, the older your home, the more likely it has lead-based paint.

Many homes built before 1978 have lead-based paint. The federal government banned lead-based paint from housing in 1978. Some states stopped its use even earlier. Lead can be found:

- In homes in the city, country, or suburbs.
- In apartments, single-family homes, and both private and public housing.
- Inside and outside of the house.
- In soil around a home. (Soil can pick up lead from exterior paint or other sources such as past use of leaded gas in cars.)

Checking Your Family for Lead

Get your children and home tested if you think your home has high levels of lead.

To reduce your child's exposure to lead, get your child checked, have your home tested (especially if your home has paint in poor condition and was built before 1978), and fix any hazards you may have. Children's blood lead levels tend to increase rapidly from 6 to 12 months of age, and tend to peak at 18 to 24 months of age.

Consult your doctor for advice on testing your children. A simple blood test can detect high levels of lead. Blood tests are usually recommended for:

- Children at ages 1 and 2.
- Children or other family members who have been exposed to high levels of lead.
- Children who should be tested under your state or local health screening plan.

Your doctor can explain what the test results mean and if more testing will be needed.

Identifying Lead Hazards

Lead-based paint is usually not a hazard if it is in good condition, and it is not on an impact or friction surface, like a window. It is defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% by weight.

Deteriorating lead-based paint (peeling, chipping, chalking, cracking or damaged) is a hazard and needs immediate attention. It may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear, such as:

- Windows and window sills.
- Doors and door frames.
- Stairs, railings, banisters, and porches.

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Lead dust can form when lead-based paint is scraped, sanded, or heated. Dust also forms when painted surfaces bump or rub together. Lead chips and dust can get on surfaces and objects that people touch. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. The following two federal standards have been set for lead hazards in dust:

- 40 micrograms per square foot ($\mu g/ft^2$) and higher for floors, including carpeted floors.
- 250 $\mu g/ft^2$ and higher for interior window sills.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. The following two federal standards have been set for lead hazards in residential soil:

- 400 parts per million (ppm) and higher in play areas of bare soil.
- 1,200 ppm (average) and higher in bare soil in the remainder of the yard.

The only way to find out if paint, dust and soil lead hazards exist is to test for them. The next page describes the most common methods used.

Checking Your Home for Lead

Just knowing that a home has lead-based paint may not tell you if there is a hazard.

You can get your home tested for lead in several different ways:

- A paint **inspection** tells you whether your home has lead-based paint and where it is located. It won't tell you whether or not your home currently has lead hazards.
- A **risk assessment** tells you if your home currently has any lead hazards from lead in paint, dust, or soil. It also tells you what actions to take to address any hazards.
- A combination risk assessment and inspection tells you if your home has any lead hazards and if your home has any lead-based paint, and where the lead-based paint is located.

Hire a trained and certified testing professional who will use a range of reliable methods when testing your home.

- Visual inspection of paint condition and location.
- A portable x-ray fluorescence (XRF) machine.
- Lab tests of paint, dust, and soil samples.

There are state and federal programs in place to ensure that testing is done safely, reliably, and effectively. Contact your state or local agency (see bottom of page 11) for more information, or call **1-800-424-LEAD (5323)** for a list of contacts in your area.

Home test kids for lead are available, but may not always be accurate. Consumers should not rely on these kits before doing renovations or to assure safety.

What You Can Do Now To Protect Your Family

If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:

- **If you rent, notify your landlord of peeling or chipping paint.**
- **Clean up paint chips immediately.**
- **Clean floors, window frames, window sills, and other surfaces weekly**. Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.

- **Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas**.
- **Wash children's hands often, especially before they eat and before nap time and bed time.**
- **Keep play areas clean.** Wash bottles, pacifiers, toys, and stuffed animals regularly.
- **Keep children from chewing window sills or other painted surfaces.**
- **Clean or remove shoes before entering your home to avoid tracking in lead from soil.**
- **Make sure children eat nutritious, low-fat meals high in iron and calcium,** such as spinach and dairy products. Children with good diets absorb less lead.

Reducing Lead Hazards In The Home

Removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

Always use a professional who is trained to remove lead hazards safely.

In addition to day-to-day cleaning and good nutrition:

- You can **temporarily** reduce lead hazards by taking actions such as repairing damaged painted surfaces and planting grass to cover soil with high lead levels. These actions (called "interim controls") are not permanent solutions and will need ongoing attention.
- To **permanently** remove lead hazards, you should hire a certified lead "abatement" contractor. Abatement (or permanent hazard elimination) methods include removing, sealing, or enclosing lead-based paint with special materials. Just painting over the hazard with regular paint is not permanent removal.

Always hire a person with special training for correcting lead problems—someone who knows how to do this work safely and has the proper equipment to clean up thoroughly. Certified contractors will employ qualified workers and follow strict safety rules as set by their state or by the federal government.

Once the work is completed, dust cleanup activities must be repeated until testing indicates that lead dust levels are below the following:

- 40 micrograms per square foot ($\mu g/ft^2$) for floors, including carpeted floors;
- 250 $\mu g/ft^2$ for interior windows sills; and
- 400 $\mu g/ft^2$ for window troughs.

Call your state or local agency (see bottom of page 11) for help in locating certified professionals in your area and to see if financial assistance is available.

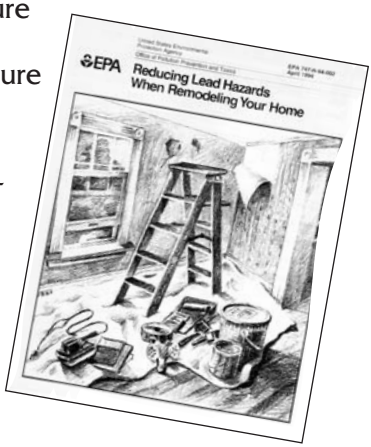
Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovating anything that disturbs painted surfaces (such as scraping off paint or tearing out walls):

- **Have the area tested for lead-based paint.**
- **Do not use a belt-sander, propane torch, high temperature heat gun, dry scraper, or dry sandpaper** to remove lead-based paint. These actions create large amounts of lead dust and fumes. Lead dust can remain in your home long after the work is done.
- **Temporarily move your family** (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.
- **Follow other safety measures to reduce lead hazards.** You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home." This brochure explains what to do before, during, and after renovations.

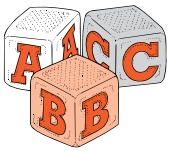
If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.

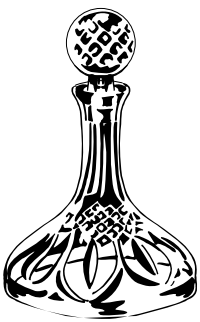
If not conducted properly, certain types of renovations can release lead from paint and dust into the air.



Other Sources of Lead

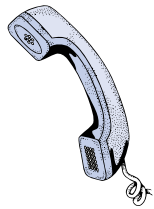
While paint, dust, and soil are the most common sources of lead, other lead sources also exist.





- **Drinking water.** Your home might have plumbing with lead or lead solder. Call your local health department or water supplier to find out about testing your water. You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
  - Use only cold water for drinking and cooking.
  - Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- **The job.** If you work with lead, you could bring it home on your hands or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.
- Old painted **toys** and **furniture.**
- Food and liquids stored in **lead crystal** or **lead-glazed pottery or porcelain.**
- **Lead smelters** or other industries that release lead into the air.
- **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture.
- **Folk remedies** that contain lead, such as "greta" and "azarcon" used to treat an upset stomach.

For More Information



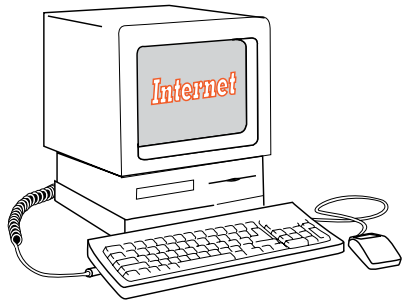
The National Lead Information Center

Call **1-800-424-LEAD (424-5323)** to learn how to protect children from lead poisoning and for other information on lead hazards. To access lead information via the web, visit **www.epa.gov/lead** and **www.hud.gov/offices/lead/.**

EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) Hotline



To request information on lead in consumer products, or to report an unsafe consumer product or a product-related injury call **1-800-638-2772**, or visit CPSC's Web site at: **www.cpsc.gov.**

Health and Environmental Agencies

Some cities, states, and tribes have their own rules for lead-based paint activities. Check with your local agency to see which laws apply to you. Most agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards. Receive up-to-date address and phone information for your local contacts on the Internet at **www.epa.gov/lead** or contact the National Lead Information Center at **1-800-424-LEAD.**

For the hearing impaired, call the Federal Information Relay Service at **1-800-877-8339** to access any of the phone numbers in this brochure.

EPA Regional Offices

Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

EPA Regional Offices

Region 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Regional Lead Contact
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (888) 372-7341

Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3 (Delaware, Maryland, Pennsylvania, Virginia, Washington DC, West Virginia)

Regional Lead Contact
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4164

Region 10 (Alaska, Idaho, Oregon, Washington)

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center
Consumer Product Safety Commission
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center
Consumer Product Safety Commission
1301 Clay Street, Suite 610-N
Oakland, CA 94612
(510) 637-4050

Central Regional Center
Consumer Product Safety Commission
230 South Dearborn Street, Room 2944
Chicago, IL 60604
(312) 353-8260

HUD Lead Office

Please contact HUD's Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control and research grant programs.

U.S. Department of Housing and Urban Development
Office of Healthy Homes and Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207
U.S. HUD Washington DC 20410

EPA747-K-99-001
June 2003

Appendix 5

The Lead-Based Paint Pre-Renovation Education Rule

a handbook for contractors, property managers, and maintenance personnel

LEAD Awareness Program

What Is The Lead-Based Paint Pre-Renovation Education Rule (Lead PRE)?

- The Lead PRE Rule is a Federal regulation affecting construction contractors, property managers, and others who perform **renovations** for **compensation** in residential housing that may contain lead-based paint.
- It applies to residential houses and apartments built before 1978.
- It requires distribution of the **lead pamphlet**, *Protect Your Family from Lead in Your Home*, to the owners and occupants before starting **renovation** work.
- **Renovation** includes most repair, remodeling, and maintenance activities that disturb painted surfaces.
- Lead PRE implements Section 406(b) of the Toxic Substances Control Act (TCSA).

About This Handbook

- This handbook summarizes Lead PRE and how to comply with it. To ensure compliance, you should also read the rule.
- Key terms are highlighted in **bold** and are explained on pages 8-10.

Who Should Read This Handbook?

- Anyone who owns or manages housing built before 1978.
- Contractors who perform **renovations** (including certain repairs and maintenance) which disturb paint in homes built before 1978.

How Can This Handbook Help Me?

- This handbook presents simple steps to follow to comply with Lead PRE. It also lists ways these steps can be easily incorporated into your work.
- Having demonstrated knowledge of lead requirements and safety practices can mean more business for you.
- Distributing the **lead pamphlet** to your customers and tenants can help them protect themselves and their children from the hazards of lead-based paint.
- This handbook describes the law. It also explains the proper steps to take to avoid potentially significant civil (monetary) and criminal fines and penalties.

What Does Lead PRE Require Me To Do?

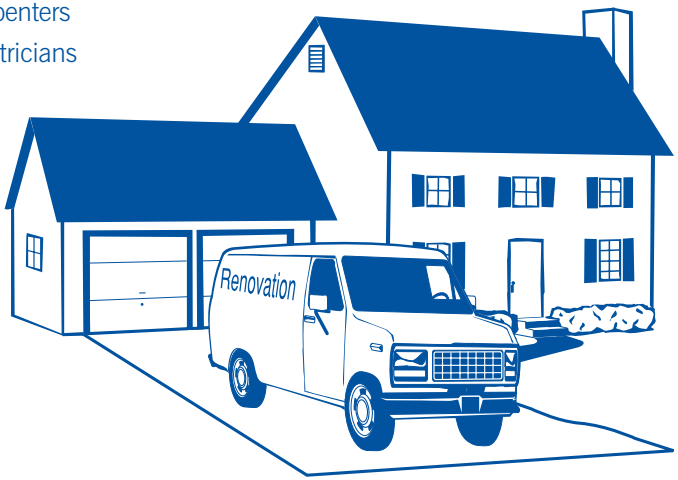
1. Distribute a **lead pamphlet** to the housing **owner** and occupants before **renovation** starts.
2. Obtain **confirmation of receipt of lead pamphlet** (see page 11) from owner and occupants or a **certificate of mailing** from the post office.
3. For work in **common areas** of **multi-family housing**, distribute **renovation notices** to tenants.
4. Retain records for 3 years.

(See page 4 for more details)

Who Must Follow These Requirements?

In general, anyone whose compensated work disturbs paint in housing built before 1978, including:

- Residential rental property owners/managers
- **General contractors**
- **Special trade contractors**, including
  - Painters
  - Plumbers
  - Carpenters
  - Electricians



What Types Of Activities Are Subject To Lead PRE?

In general, any activity that disturbs paint in pre-1978 housing, including:

- Remodeling and repair/maintenance
- Plumbing
- Carpentry
- Electrical work
- Painting
- Window replacement

What Housing Or Activities Are Excluded From Lead PRE?

- Housing built in 1978 or later
- **Housing for the elderly** or disabled persons (unless children will reside there)
- **Zero-bedroom dwellings** (studio apartment, dormitories, etc.)
- Housing or **components** declared lead-free by a **certified inspector** or **risk assessor**
- **Emergency renovations** and repairs
- **Minor repairs and maintenance** that disturb two square feet or less of paint per **component**

Lead PRE At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES

Are ANY of the following conditions present?

- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → **Lead PRE Does Not Apply**

If Any Yes

NO

If All No

If no, then you need to provide the lead pamphlet (see page 4).

How Do I Meet The Lead PRE Requirements?

Renovation Location	Procedures to Follow
Renovations in Owner-Occupied Dwelling Units	Box 1 Deliver **lead pamphlet** to **owner** before **renovation** begins and obtain **confirmation of receipt**. **OR** Mail lead pamphlet to owner 7 days before renovation begins and document with **certificate of mailing**
Renovations in Tenant-Occupied Dwelling Units	Box 2 1. Provide **lead pamphlet** to **owner** using either procedure described in Box 1 above. 2. Provide lead pamphlet to tenant by either method below: (a) Deliver pamphlet to dwelling unit before **renovation** begins and document delivery with either a **confirmation of receipt** of lead pamphlet or a **self-certification of delivery**. **OR** (b) Mail lead pamphlet to tenant at least 7 days prior to renovation and document with a **certificate of mailing**
Renovations in Common Areas of Multi-Family Housing Units	Box 3 1. Provide **owner** with **lead pamphlet** using either procedure described in Box 1 above. 2. Notify tenants and make pamphlet available. 3. Maintain written documentation describing notification procedures. 4. Provide **supplemental renovation notice** if changes occur in location, timing, or scope of renovation occurring.

For all options keep records for 3 years after renovation is completed.
(Sample Forms on pages 11 and 12.)

Special Circumstances

Is painting considered renovation, even if no surface preparation activity occurs?

No. If the surface to be painted is not disturbed by sanding, scraping, or other activities that may cause dust, the work is not considered renovation and Lead PRE does *not* apply.

What if I renovate my own home?

Lead PRE applies only to **renovations** performed for **compensation**; therefore, if you work on your own home Lead PRE does not apply.

Is a renovation performed by a landlord or employees of a property management firm considered a compensated renovation under Lead PRE?

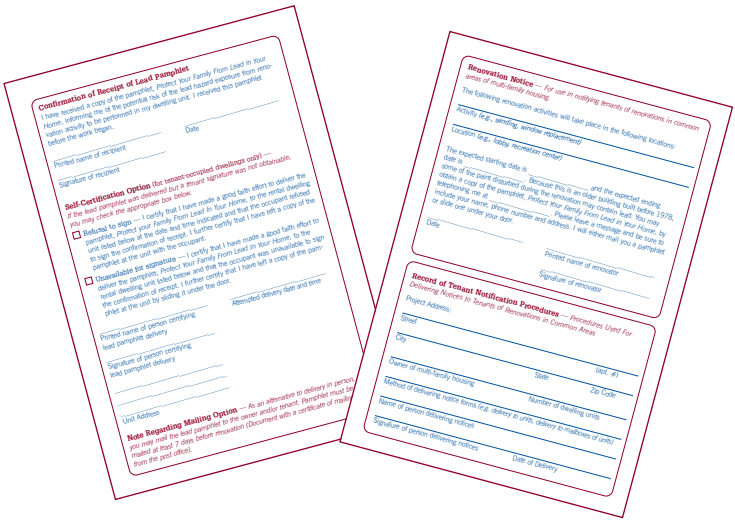
Yes. The receipt of rent payments or salaries derived from rent payments is considered **compensation** under Lead PRE. Therefore, **renovation** activities performed by landlords or employees of landlords are covered.

Do I have to give out the lead pamphlet 7 days prior to beginning renovation activities?

The 7-day advance delivery requirement applies only when you deliver the **lead pamphlet** via mail; otherwise, you may deliver the pamphlet *anytime* before the **renovation** begins. Note, however, that the renovation must begin within 60 days of the date that the pamphlet is delivered. So for example, if your renovation is to begin May 30, you may deliver the pamphlet in person anytime between April 1 and start of the project on May 30, or you may deliver the pamphlet via mail anytime between April 1 and May 23.

Tips For Easy Compliance

1. Copy and use the sample forms on pages 11 and 12 of this handbook.
2. Attach the forms to the back of your customer **renovation** or repair contracts. The completed forms can be filed along with your regular paperwork.
3. If a tenant is not home or refuses to sign the form, you may use the "self-certification" section of the form *(on page 11)* to prove delivery. This will reduce your paperwork.
4. Plan ahead to obtain enough copies of the **lead pamphlet**.



Where Can I Obtain More Information on Lead PRE?

Further information is available from the National Lead Information Clearinghouse (800-424-LEAD) or through the Internet (www.epa.gov/lead). Available resources include:

- Full text version of Lead PRE
- Interactive software which guides the users through the Lead PRE requirements on a step-by-step basis *(available in late June)*
- Interpretive guidance which provides more detailed information on Lead PRE requirements

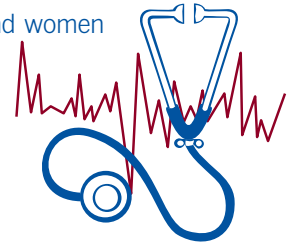
Why is Lead Paint Dangerous?

People can ingest lead by breathing or swallowing lead-based paint dust or by eating lead-contaminated soil or lead-based paint chips. Household animals are also at risk.

If not detected early, high levels of lead in a child can cause serious effects, including:

- Damage to the brain and nervous system
- Behavior and learning problems
- Slowed growth
- Hearing problems
- Headaches

Lead is also harmful to adults and can, among other effects, cause:



- Difficulties during pregnancy
- Other reproductive problems for men and women
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain

Lead can be dangerous to workers and their families if the worker brings equipment and clothing home after a job.

Other Resources

For additional information on how to protect yourself and your customers from lead paint hazards, call the National Lead Information Clearinghouse at 1-800-424-LEAD. Available documents include:

- *Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings*
- *Lead Safety for Property Owners, Developers, and Managers*
- *Reducing Lead Hazards When Remodeling Your Home*
- *Lead in Your Home: A Parents' Reference Guide*
- *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work*

Key Terms

Certificate of Mailing — written verification from the Postal Service that you mailed the lead pamphlet to an owner or a tenant. This is less expensive than certified mail, which is also acceptable for meeting Lead PRE requirements. *(**Note:** If using this delivery option, you must mail the pamphlet at least 7 days prior to the start of renovation.)*

Certified Inspector or Risk Assessor — an individual who has been trained and is certified by EPA or an authorized state or Indian Tribe to conduct lead-based paint inspections or risk assessments.

Common Area — a portion of a building that is generally accessible to all residents or users. Common areas include (but are not limited to) hallways, stairways, laundry rooms, recreational rooms, playgrounds, community centers, and fenced areas. The term applies to both interiors and exteriors of the building. *(**Note:** Lead PRE requirements related to common areas apply only to multi-family housing.)*

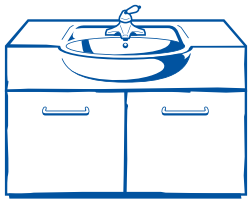
Compensation — payment or goods for services rendered. Payment can be in the form of money, goods, or services (bartering).

Component — specific design or structural element or fixture distinguished by its form, function, and location. A component can be located inside or outside the dwelling.

Examples

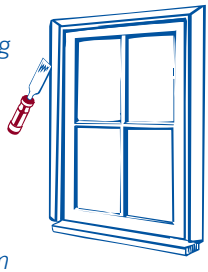
Interiors

Ceilings
Crown molding
Walls
Doors and trim
Floors
Fireplaces
Radiators
Shelves
Stair treads
Windows and trim
Built-in cabinets
Beams
Bathroom vanities
Counter tops
Air conditioners



Exterior

Painted roofing
Chimneys
Flashing
Gutters and downspouts
Ceilings
Soffits
Doors and trim
Fences
Floors
Joists
Handrails
Window sills and sashes
Air conditioners



Confirmation of Receipt of Lead Pamphlet — a form that is signed by the owner or tenant of the housing confirming that they received a copy of the lead pamphlet before the renovation began. *(See sample on page 11.)*

Key Terms (continued)

Emergency Renovation — unplanned renovation activities done in response to a sudden, unexpected event which, if not immediately attended to presents a safety or public health hazard, or threatens property with significant damage.

Examples 1: *Renovation to repair damage from a tree that fell on a house*
2: *Renovation to repair a water pipe break in an apartment complex*

General Contractor — one who contracts for the construction of an entire building or project, rather than for a portion of the work. The general contractor hires subcontractors (e.g. plumbing, electrical, etc.), coordinates all work, and is responsible for payment to subcontractors.

Housing for the Elderly — retirement communities or similar types of housing specifically reserved for households of one or more persons 62 years of age or older at the time the unit is first occupied.

Lead Abatement — work designed to permanently eliminate lead-based paint hazards. If you are hired to do lead-abatement work only, Lead PRE does not apply. Abatement does not include renovation, remodeling, landscaping, or other activities done to repair, restore, or redesign a given building — even if these activities incidentally reduce lead-based paint hazards. *(**Note:** Some states define this term differently than described above. Consult your state officials if you are not sure how "lead abatement" is defined in your state.)*

Lead Pamphlet — the pamphlet *Protecting Your Family From Lead in Your Home,* or an EPA-approved alternative pamphlet. *(See page 13 for information on obtaining copies.)*

Minor Repair and Maintenance — minor repair and maintenance activities, such as minor electrical work or plumbing, that disturb two square feet or less of painted surface per component.

Examples 1: *Drilling holes in the wall to run an electrical line*
2: *Replacing a piece of window trim*
3: *Replacing a light fixture*

Multi-family Housing — housing property consisting of more than four dwelling units.

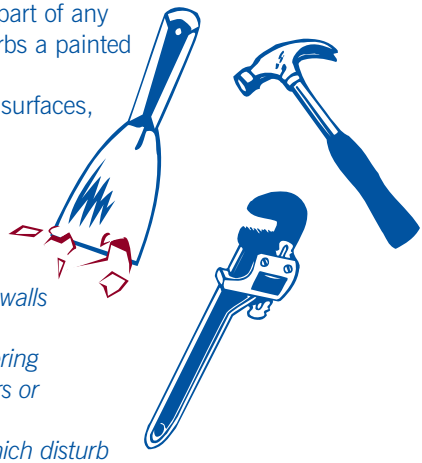
Owner — any person or entity that has legal title to housing, including individuals, partnerships, corporations, government agencies, Indian Tribes, and nonprofit organizations.

Record of Notification — written statement documenting the steps taken to notify occupants of renovation activities in common areas of multi-family housing. *(See page 12 for sample.)*

Key Terms (continued)

Renovation — modification of all or part of any existing structure in housing that disturbs a painted surface. Includes:

- Removal/modification of painted surfaces, components, or structures
- Surface preparation activities (sanding/scraping/other activities that may create paint dust)
- Window replacement



Examples 1: *Demolition of painted walls or ceilings*

2: *Large surface replastering*

3: *Major plumbing repairs or improvements*

4: *Any other activities which disturb painted surfaces*

Renovation Notice — notice to tenants of renovations in common areas of multifamily housing. *(See sample form on page 12.)* Notice must describe nature, location, and expected timing of renovation activity; and must explain how the lead pamphlet may be obtained free of charge.

Renovator — a person who performs for compensation a renovation, as defined above. *(**Note:** Because the term "renovation" is defined broadly by Lead PRE, many contractors who are not generally considered to "renovators," as that term is commonly used, are considered to be "renovators" under Lead PRE, and must follow Lead PRE requirements.)*

Self-Certification of Delivery — an alternative method of documenting delivery of the lead pamphlet to a tenant. This method may be used whenever the tenant is unavailable or unwilling to sign a confirmation of receipt of lead pamphlet. *(See sample form on page 11.)* (***Note:** This method is not a permissible substitute for delivery of the lead pamphlet to an owner.)*

Special Trade Contractors — individuals or companies performing work in specialized occupations such as painting, electrical work, plumbing, or carpentry.

Supplemental Renovation Notice — additional notification that is required when the scope, location, or timing of project changes.

Zero-Bedroom Dwelling — any residential dwelling where the living area is not separated from the sleeping area. This term includes efficiency and studio apartments, dormitory housing, and military barracks.

Sample Forms

The forms on the next two pages are sample forms you can use to make documentation of compliance easier.

Confirmation of Receipt of Lead Pamphlet

I have received a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, informing me of the potential risk of the lead hazard exposure from renovation activity to be performed in my dwelling unit. I received this pamphlet before the work began.

_____ _____

Printed name of recipient Date

_____

Signature of recipient

Self-Certification Option (for tenant-occupied dwellings only) — *If the lead pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.*

☐ Refusal to sign — I certify that I have made a good faith effort to deliver the pamphlet, *Protect your Family From Lead In Your Home,* to the rental dwelling unit listed below at the date and time indicated and that the occupant refused to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit with the occupant.

☐ Unavailable for signature — I certify that I have made a good faith effort to deliver the pamphlet, *Protect Your Family From Lead In Your Home,* to the rental dwelling unit listed below and that the occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit by sliding it under the door.

_____ _____

Printed name of person certifying lead pamphlet delivery Attempted delivery date and time

_____

Signature of person certifying lead pamphlet delivery

_____

_____

_____

Unit Address

Note Regarding Mailing Option — *As an alternative to delivery in person, you may mail the lead pamphlet to the owner and/or tenant. Pamphlet must be mailed at least 7 days before renovation (Document with a certificate of mailing from the post office).*

Sample Forms (continued)

Renovation Notice — *For use in notifying tenants of renovations in common areas of multi-family housing.*

The following renovation activities will take place in the following locations:

_____

Activity *(e.g., sanding, window replacement)*

_____

Location *(e.g., lobby, recreation center)*

The expected starting date is _____ and the expected ending date is _____. Because this is an older building built before 1978, some of the paint disturbed during the renovation may contain lead. You may obtain a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, by telephoning me at _____. Please leave a message and be sure to include your name, phone number and address. I will either mail you a pamphlet or slide one under your door.

_____ _____

Date Printed name of renovator

_____

Signature of renovator

Record of Tenant Notification Procedures — *Procedures Used For Delivering Notices to Tenants of Renovations in Common Areas*

Project Address:

_____

Street (apt. #)

_____

City State Zip Code

_____

Owner of multi-family housing Number of dwelling units

_____

Method of delivering notice forms *(e.g. delivery to units, delivery to mailboxes of units)*

_____

Name of person delivering notices

_____

Signature of person delivering notices Date of Delivery

Where Can I Get Copies of the **Lead Pamphlet**?

For single copies of *Protect Your Family From Lead in Your Home* (in Spanish or English), call the National Lead Information Clearinghouse (NLIC) at 1-800-424-LEAD. For any orders, be sure to use the stock reference number **EPA747-K-99-001**.

There are four ways to get multiple copies:

1. **Call the Government Printing Office order desk at (202) 512-1800.**
2. **Send fax requests to (202) 512-2233.**
3. Request copies in writing from:

   Superintendent of Documents
   P.O. Box 371954
   Pittsburgh, PA 15250-7954
4. **Obtain via the Internet at www.epa.gov/lead**

Single copies are available at no charge. Bulk copies available in packs of 50.

The pamphlet may be photocopied for distribution as long as the text and graphics are readable. Camera-ready copies are available from NLIC or via the Internet.

The Lead Pre-Renovation Education Rule (Lead PRE) At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES

Are ANY of the following conditions present?

- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → **Lead PRE Does Not Apply**

If Any Yes

NO *If All No*

If no, then you need to read this book! Rental property owners and managers, renovators, and maintenance personnel are affected by Lead PRE.

Bold Type = Key Terms (see pages 8–10 inside)

Appendix 6

APPENDIX 6: For More Information

If you are a hearing- or speech-impaired person, you may reach the telephone numbers below via TTY by calling the Federal Information Relay Service at 1-800-877-8339.

Where can I get copies of the *Protect Your Family From Lead in Your Home* pamphlet in English, Spanish, or Vietnamese?

- ✓ Download electronic copies at: www.epa.gov/lead or www.hud.gov/offices/lead/disclosurerule.
- ✓ Use camera-ready copies from the National Lead Information Center to reproduce the pamphlet, providing that you reproduce the text and graphics in full: 1-800-424-LEAD (5323).
- ✓ Order bulk copies from the Government Printing Office (GPO) which cost $53.00 for a package of 50 pamphlets: 202-512-1800; refer to the pamphlet by name or by GPO Stock Number 055-000-00632-6 or order online at http://bookstore.gpo.gov.

Where can I get copies of *The Lead-Based Paint Pre-Renovation Education Rule* handbook?

- ✓ Download electronic copies in PDF format at http://www.epa.gov/lead/leadrenf.htm.
- ✓ Contact the National Lead Information Center at: 1-800-424-LEAD (5323)

Where can I find additional information and resources related to lead-based paint?

- ✓ Lead Information Center: 1-800-424-LEAD (5323)
- ✓ EPA's Office of Pollution Prevention and Toxics (OPPT): www.epa.gov/lead and 202-260-3810
- ✓ HUD's Office of Healthy Homes and Lead Hazard Control: www.hud.gov/offices/lead and 202-755-1785 x104

Appendix 7

APPENDIX 7: Optional Written Exercises

The following exercises can be used in place of the hands-on exercises or as supplemental activities. Exercise worksheets and answers are provided.

Exercise 1) Identify Common Work Practices that Create Dust

Exercise 2) Review Set-Up Methods

Exercise 3) Identify Safe Work Practices

Exercise 1: Instructions

Objective: Identify common work practices that produce a lot of dust and debris.

Length: Total time: 20 minutes; 10 minutes to answer; 10 minutes to report and debrief.

Directions:

1. Introduce the exercise objective and describe what each group should do.

2. Determine the number of groups of 3 to 5 people (group size should be at least 3 or 4 people and up to 5 people if the class is large). Try to keep the number of groups to no more than 6 or 7 if the class is large. The table below may help you determine group size and number of groups. Have participants count off up to the number of groups to assign to groups.

Class Size	Number of Groups	Group Size
1-5	1	1-5
6-8	2	3 or 4
9-11	3	3 or 4
12-14	4	3 or 4
15-19	5	3 or 4
20-24	6	3 or 4
25-30	6	4 or 5

3. Tell class they have 10 minutes to answer all four questions, and then we will have a class discussion on the answers each group develops. Each group should select a spokesperson to present the group's answers to the rest of the class.
    - Give 5, 2, and 1-minute warnings of time remaining.
    - Circulate around the room to ensure that participants understand their roles.

Debriefing Procedure

Take 10 minutes for debriefing.

- Have one group present its answers to questions 1 and 2.

- Ask whether other groups had a different ranking for the work practices, and if so to please share their ranking for question 1 and their answer to question 2. If no other group volunteers, choose a group to present their answers to questions 1 and 2.

- The point of this discussion is to help participants see that the types of work practices they may currently use can create a lot of dust and debris and that there are some common reasons for the amount of dust and debris created.

- Ask another group what they answered for question 3. Then ask other groups if they agree or disagree. If they disagree, ask them to say why.

- Finally, ask another group to answer question 4. Ask the other groups if they would do something different. If no one answers, choose a group and ask them to respond. Try to make sure that each group has had a chance to participate and answer at least one question.

Exercise 1: Answers

Objective: Identify common work practices that produce a lot of dust and debris.

Length: 20 minutes.

Directions: In groups of 3 to 5 take 10 minutes to answer the questions below. Assign one person to report your group's answers to the rest of the class.

1. Rank the work practice descriptions according to the amount of dust and paint chips you think they make. In the table below, under the column labeled Rank, write:

    - "1" next to the work practice that makes the most dust and debris.
    - "2" next to the work practice that makes the second most amount of dust and debris.
    - "3" next to the work practice that makes the third most amount of dust and debris.

Continue until you have ranked each work practice according to how much dust and debris you think it will make. A smaller number means that you think the work practice will create more dust or debris than a larger number.

If you think that some work practices make about the same amount of dust or debris you can give them the same rank. If you think that each practice makes different amounts of dust, rank them from 1 to 7. If you think you need more detail to make a decision, just make that detail part of your assumptions and be sure to note that assumption when explaining your ranking.

Work Practice Description	Rank
A. Using a power sander with no vacuum attachment to remove interior paint from a plaster wall.	1
B. Hand sanding a small (less than 2 square feet) area for surface preparation on an interior room where the paint is in good condition.	5
C. Ripping out old kitchen cabinets in a 50 year-old house where the paint on the walls and cabinets is in good condition (e.g., it is not peeling or flaking).	2
D. Repairing a sticking window. Loosen the painted sashes, remove inside stop molding, remove top and bottom sash, use a power planer to remove old paint, reglaze and repair the sash as necessary, repair and paint the jamb, reinstall the sash.	2
E. Removing old carpeting placed over a hardwood floor in one room.	3
F. Demolishing one interior wall using hand or power tools.	2
G. High pressure power washing or hydro blasting exterior paint.	4

2. For the work practice(s) that you ranked #1 (it makes the most dust and debris), tell why you think it makes the most dust or debris.

Work practice A creates the most dust and debris. Any sanding on a surface area more than 2 square feet generates a lot of dust. Recent studies by the National Institute for Occupational Safety and Health (NIOSH) indicate that power sanding without a HEPA filter attachment creates the most dust.

Different groups could come up with different answers. If they do, ask them why. Underlying assumptions about the nature of the work practice may have contributed to their decision. Different assumptions may render different answers acceptable.

3. For the work practice(s) that you ranked last (it makes the least amount of dust and debris) tell why you think it makes the least amount of dust and debris.

Hand sanding less than 2 square feet for surface preparation usually generates less dust and debris than the other activities listed in question 1. This is the smallest area in the list of work practices. In addition, hand sanding is unlikely to use as much pressure on the surface or move as fast as a power sander. The combination of small surface area and less total "activity" means that less dust and debris is usually created.

Different groups could come up with different answers. If they do, ask them why. Underlying assumptions about the nature of the work practice may have contributed to their decision. Although unlikely in this case, different assumptions may render different answers acceptable.

4. If you actually did any of the jobs described above, what would you do to clean up when the job was finished?

Most contractors will sweep or vacuum obvious dust from the interior work area and dispose of any debris or garbage. They will also pick up drop cloths for reuse at another work site.

If contractors do more than this, there is usually less to learn in order to perform clean-up activities that are safer and more effective.

Exercise 1: Worksheet

Objective: Identify common work practices that produce a lot of dust and debris.

Length: Total Time: 20 minutes.

Directions: In groups of 3 to 5 take 10 minutes to answer the questions below. Assign one person to report your group's answers to the rest of the class.

1. Rank the work practice descriptions according to the amount of dust and paint chips you think they make. In the table below, under the column labeled Rank, write:
   - 1 next to the work practice that makes the most dust and debris.
   - 2 next to the work practice that makes the second most amount of dust and debris.
   - 3 next to the work practice that makes the third most amount of dust and debris.
   - Continue until you have ranked each work practice according to how much dust and debris you think it will make. A smaller number means that you think the work practice will create more dust or debris than a larger number.

If you think that some work practices make about the same amount of dust or debris you can give them the same rank. If you think that each practice makes different amounts of dust, rank them from 1 to 7. If you think you need more detail to make a decision, just make that detail part of your assumptions and be sure to note that assumption when explaining your ranking.

Work Practice Description	Rank
A. Using a power sander with no vacuum attachment to remove interior paint from a plaster wall.	
B. Hand sanding a small (less than 2 square feet) area for surface preparation on an interior room where the paint is in good condition.	
C. Ripping out old kitchen cabinets in a 50 year-old house where the paint on the walls and cabinets is in good condition (e.g., it is not peeling or flaking).	
D. Repairing a sticking window. Loosen the painted sashes, remove inside stop molding, remove top and bottom sash, use a power planer to remove old paint, reglaze and repair the sash as necessary, repair and paint the jamb, reinstall the sash.	
E. Removing old carpeting placed over a hardwood floor in one room.	
F. Demolishing one interior wall using hand or power tools.	
G. High pressure power washing or hydro blasting exterior paint.	

2. For the work practice(s) that you ranked #1 (it makes the most dust and debris), tell why you think it makes the most dust and debris.

3. For the work practice(s) that you ranked last (it makes the least amount of dust and debris) tell why you think it makes the least amount of dust and debris.

4. If you actually did any of the jobs described above, what would you do to clean up when the job was finished?

Exercise 2: Instructions

Objective: Review set-up methods to contain lead dust and allow for easier clean-up.

Length: Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

Directions:

- Introduce the exercise and the objective. Describe what each group should do.
- Divide the class into groups of between 3 and 5 participants.
- Tell the class that they will have 20 minutes to look at the illustrations and determine the three set-up techniques that do not contain lead dust and identify three techniques that they could use to contain lead dust.

Debriefing Procedure:

Take 10 minutes for the debriefing.

- The point of this debriefing is to help participants gain a clear understanding of the concept of containment–what it is and what it is not–and how to set-up the work space to preserve containment.

- Have one group present their answers for the first illustration. If necessary to save time, ask the group to present only their answers for how to reduce the spread of dust and debris.

- Then ask other groups if they had different answers for the first illustration. If so, select one other group to present and explain their answers. If not, ask other groups why they selected the specific methods in their answer.

- Repeat this process for each illustration. Be sure to select different groups to present on each illustration to ensure that each group has a chance to present.

Exercise 2: Answers

Objective: Review set-up methods to contain lead dust and allow for easier clean-up.

Length: Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

Directions: In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead dust beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead contaminated dust to non-work areas;
- Assign one person to report your group's answers to the rest of the class.

Illustration 1: Replace Window

Increase the Spread of Dust and Debris:
1) Drop cloths carry lead-contaminated dust to other jobs. 2) Lead-contaminated dust will fall onto the drapes creating a hazard for the residents. 3) Open windows and doors allow dust to be blown into and outside of the house. 4) There is no barrier to indicate that residents should not enter the area.

Reduce the Spread of Dust and Debris:
1) The small child should not be allowed near the work area. 2) Use plastic protective sheeting to cover furniture and the floor. 3) The drapes should be removed from the work area. 4) Barriers should be installed. 5) Adult residents should be told to stay away from the work area and keep children away

Illustration 2: Remove Exterior Paint

Increase Spread of Dust and Debris:
1) Paint dust and chips are blowing onto the nearby play area. 2) Children are playing nearby. 3) The exposed pile of paint chips poses a significant hazard to the residents.

Reduce Spread of Dust and Debris:
1) Lay protective sheeting on ground (if using water, lay landscaping mesh to capture paint chips and let water into ground). 2) Children should be told to stay away from the work area and a barrier erected. 3) The pile of paint chips should be vacuumed up frequently and not left on the ground where wind may scatter them onto the play area.

Illustration 3: Rework and Paint Interior Components

Increase the Spread of Dust and Debris:
1) The significant amount of dust being generated and the ability to remove the door suggest that a dust room should be set-up. 2) There is no protective sheeting on the floor. 3) The windows and doors are open. 4) There is also no evidence of any barriers or signs limiting access to the work area.

Reduce the Spread of Dust and Debris:
1) Create a dust room. 2) The floors and windows should be lined with protective sheeting. 3) The entrance to the dust room" should have the 2- layer flap system.

Exercise 2: Worksheet

Objective: Review set-up methods to contain lead dust and allow for easier clean-up.

Length: Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

Directions: In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead dust beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead contaminated dust to non-work areas;
- Assign one person to report your group's answers to the rest of the class.

Illustration 1: Replace Window

Increase the Spread of Dust and Debris:

_____

_____

_____

_____

Reduce the Spread of Dust and Debris:

_____

_____

_____

_____

Illustration 2: Remove Exterior Paint

Increase Spread of Dust and Debris:

Reduce Spread of Dust and Debris:

Illustration 3: Rework and Paint Interior Components

Increase the Spread of Dust and Debris:

Reduce the Spread of Dust and Debris:

Exercise 3: Instructions

This exercise is an instructor-lead discussion where participants determine approaches to work tasks using safe work practices. The discussion should lead to an exchange of ideas among the participants on safe approaches to typical jobs.

Instructor's Notes

This exercise is a class discussion. The instructor's job is to present the directions, encourage discussion, manage the responses, write down the participants' ideas, and contribute to the discussion.

Step 1. Explain the instructions to the class: Give them 5 minutes to read the scenario and the jobs described after.

Step 2. The remaining 20 minutes allotted for the exercise is devoted to the participants' suggestion for safe approaches to each job. Starting with the first job, ask the participants for their ideas on how to do the job. Ask them for specific steps, the tools they will need, and what the job should look like when done.

Step 3. As the participants make their suggestions, jot them down on a clear overhead sheet or flip chart for everyone to see and keep track of what has been covered.

Step 4. After getting a complete description, move onto the next job. You should spend about 5 minutes on each before moving onto the next.

Exercise 3: Answers

Objective: Identify safe work practices for typical renovation and remodeling tasks.

Length: Total time: 25 minutes

Directions: Take 5 minutes to read the background and the jobs below. When you are finished, the instructor will ask you and the other participants to contribute approaches to each of the jobs listed below. You may take notes on approaches under each description.

Background

You own a small contracting firm which has been hired by a couple to renovate the interior and exterior of their large Victorian-style home built around 1910. This is a prominent home in the neighborhood (it sits on the corner) and you are looking forward to doing a quality job and getting a good reference. You also like that your truck parked in the driveway with your name on it will make good advertising to the neighbors who drive by. Furthermore, it will keep you and your workers busy for at least three solid weeks.

As the law requires, you give the couple the lead pamphlet *Protect Your Family from Lead in Your Home*. The day before you are to start working, they call and ask you if they have lead-based paint in their home and whether they should be worried about it. (They have a four-year old daughter and plan to remain in the house during the two-week work period). You inform them that, short of having the place tested, you have no way of knowing for sure. To be safe, you tell them that you assume that some layers of paint in the home are lead-based paint.

You get the feeling that they are having second thoughts and might cancel the job. You inform them that there are steps that can be taken to reduce the risk of creating a lead hazard. You also point out that you and two of your steady workers have taken an EPA course on how to do work safely. This seems to reassure them and they tell you to go ahead as planned.

On the Job: Day One

In addition to yourself and your two experienced employees, you have hired a full-time worker to help with the demolition and prep work. You have several specific jobs in mind for this worker which are listed below. Keeping in mind that your clients are concerned about lead-based paint, and that the jobs will create a lot of debris and dust, you want to be sure that the jobs are done right and use safe work practices. You decide that the best course of action is to take the time to explain to the worker, step-by-step, how to do each.

The instructor will ask you and the others in the class to give instructions the new worker. Be clear about what safe work practices you want used, in what order, and the tools that the worker will need. Also tell the worker how you want the work site prepared and what you want it to look like before the next stage of work starts.

The Jobs

How will you tell the new worker to do each of the following jobs?

1. Remove worn green carpet from vestibule, first floor hallway, and staircase. The carpet is tacked to the floor and its edges are covered with quarter round at all of the walls. The carpet is being removed to expose hardwood flooring which is to be refinished.

   Mist and pry loose baseboard covering edges of carpet; dispose of by immediately wrapping in protective sheeting and carry out of the work site. Lightly mist carpet with pump sprayer to keep dust down but not to add weight to the carpet. Pull up edges of the carpet and roll to one side, carpet side up. Wrap in protective sheeting, seal with duct tape, and carry away from the work site for disposal. HEPA vacuum dust on the bare floor before beginning refinishing of the floor. Tools used include pry bars, vice grips, misting bottles and pump sprayer, and HEPA vacuum.

2. Enlarge the door size opening in the wall between the living and dining rooms to make way for an enlarged passageway. There is trim at the base of the walls and trim at the top and sides of the opening. As much of the trim as possible should be saved to be reused on the enlarged opening. The new opening will be as tall as before but wider.

   Set up the work area as described in the module on set up: put down protective sheeting, seal doorways, etc. Lightly mist trim surfaces and pry loose with pry bar and hammer. Remove nails by pulling with the hammer claws or vice grips. Remove trim from the work area for paint removal at the exterior of the residence.

   When all of the trim has been removed. Lightly mist sections of wall if demolishing with a sledge hammer. Do not mist if using a saw to cut through the wall. Dispose of debris as it is created by wrapping in protective sheeting, sealing with duct tape, and carrying away from the work site.

   After demolition, HEPA vacuum the work site, remove protective sheeting, and HEPA vacuum the surfaces covered by protective sheeting.

3. Remove the old painted wooden cabinets in the kitchen. These built-in cabinets line two walls in the kitchen. The walls will be repainted and new cabinets installed.

   Set up the work area as described in the module on set up: put down protective sheeting, seal doorways, etc. Remove cabinet doors and wrap in protective sheeting and carry away from the work area. Mist cabinets and pry loose from walls. Wrap in protective sheeting and carry away from the work site.

   After the cabinets are removed, wet scrape and sand any rough areas on the wall in preparation for installation of new cabinets and repainting.

   When work is done, HEPA vacuum area, remove protective sheeting, and HEPA vacuum all surfaces.

4. Remove sections of deteriorated siding and peeling paint from the east exterior wall of the house. Water has leaked behind the siding causing large sections to deteriorate. There are two large patches of peeling paint where the siding is still solid. New clapboard siding will be installed later and the entire exterior repainted by a painting contractor.

   Set up exterior work area according to set up procedures in module on set up. Remove deteriorated siding by lightly misting and prying loose siding from the structure. Immediately wrap removed siding in protective sheeting and carry away from the work site. Lightly mist, scrape, and sand areas of deteriorated paint. When done, remove protective sheeting and dispose of . NOTE: Safe work practices should also be used when installing new sections of siding.

Exercise 3: Worksheet

Objective: Identify safe work practices for typical renovation and remodeling tasks.

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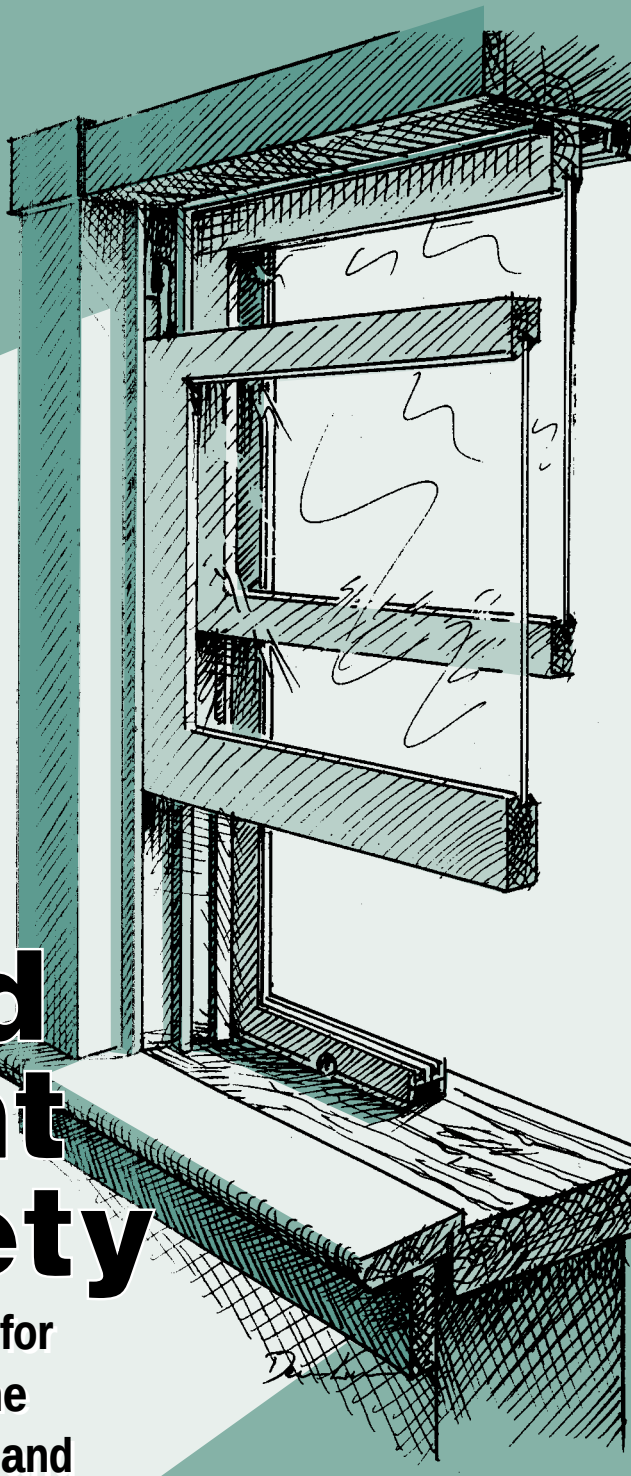
Appendix 8



YOUR COMMUNITY PARTNER

CENTERS FOR DISEASE CONTROL AND PREVENTION

Lead Paint Safety

A Field Guide for Painting, Home Maintenance, and Renovation Work

U.S. Department of Housing
and Urban Development
Office of Healthy Homes and
Lead Hazard Control

Foreword

Every child should have a lead-safe home. That's why HUD is working to create lead-safe affordable housing through outreach and public education, a lead hazard control grant program, worker training, and the enforcement of regulations.

This guide is one part of HUD's comprehensive approach to lead safety in the home. If you perform routine maintenance on homes or apartments built before 1978, this guide will help you plan and carry out your work safely. Step-by-step instructions and illustrations explain and show what you need to do to protect yourself and your clients if you are working in older housing that could contain lead paint. This Field Guide is a valuable tool that thousands of workers and contractors across the country are using as part of a national effort to eliminate childhood lead poisoning.

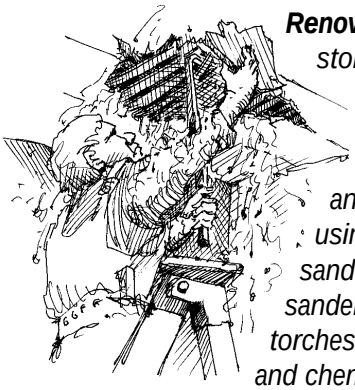
Thank you for working lead-safe. It's helping protect America's children.

Mel Martinez, Secretary
U.S. Department of Housing and Urban Development

Acknowledgements

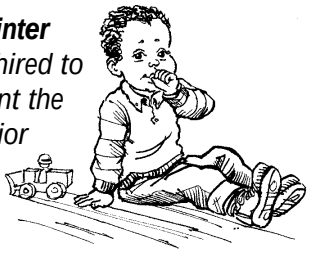
The U.S. Department of Housing and Urban Development (HUD) developed this guide with the assistance and input of the Centers for Disease Control and Prevention (CDC), the U.S. Environmental Protection Agency (EPA), and the Occupational Safety and Health Administration (OSHA). HUD would like to thank the staff of these agencies for their participation in developing this Field Guide. HUD would also like to thank all of the renovation, painting, maintenance, and lead professionals who provided useful feedback. Vicki Ainslie, Dana Bres, Robert Brown, Kevin Cleary, Alan Isaac, David Levitt, Linda Lewis, Dennis Livingston, Eric Oetjen, Roy Reveilles, Ron Rupp, Joe Shirmer, Aaron Sussell, Peter Tiernan, David Thompson, Richard Tobin, Ellen Tohn, Veda Watts, and Mike Wilson served on the Technical Panel for this project. A special thanks goes to these individuals for their contributions.

This Guide was developed by the U.S. Department of Housing and Urban Development's Office of Healthy Homes and Lead Hazard Control through a contract with ICF Incorporated. Dennis Livingston created the illustrations and provided technical content for this Field Guide.



Renovation *of a two-story, 19th century house included removing paint from floors and woodwork using power sanders, hand sanders, scrapers, torches, heat guns, and chemical paint strippers. Ceilings were also repaired, and wallpaper and paint were removed from several walls. The family that owned the home temporarily moved out of the house. They returned when the work was only partly completed. There was dust throughout the house.*

The family discovered that something was wrong when one of the family's dogs began to have seizures. A veterinarian found that the dog had been lead poisoned. The mother and children had their blood tested, and found that all of them had very high levels of lead in their blood. All three were admitted to the hospital for severe lead poisoning.

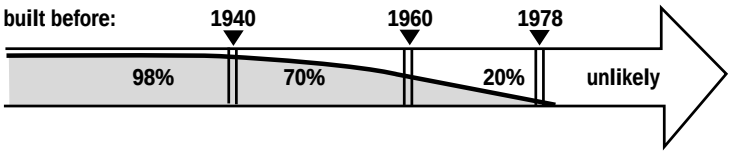


A painter *was hired to repaint the exterior of an old Vermont home occupied by a couple expecting the birth of their first child. The painter used a power grinder to remove the old paint from the exterior siding. While the painter worked, the window to the baby's nursery was left open, and the entire room, including the crib, became covered with dust. Fortunately, the couple noticed the dust, and understood the potential risk. They called in another painter who was qualified to control lead hazards. He cleaned up the paint dust and the newborn baby moved into a clean, safe home.*

Most Old Homes Contain Lead-Based Paint

- Most homes built before 1978 contain some lead-based paint. Lead-based paint is more common and was used more extensively in homes built before 1950.

Probability of a House Containing Lead



- Homes built before 1950 also used paint that had a higher concentration of lead.

Poor Maintenance Endangers Children

- In poorly maintained houses, lead-based paint, which may be several layers down, flakes and peels off. Paint failure is usually caused by moisture problems. Sometimes rubbing or impact causes paint failure. Doing work improperly can also cause a lot of dust.
- Lead-based paint chips and dust then mix with house dust and build up in window troughs and on floors.
- Children are endangered when lead in paint chips, dust, and soil gets on their hands and toys which they may put in their mouths.
- Lead can make children very sick and cause permanent brain and nerve damage. It can also result in learning difficulties and behavior problems. This damage is irreversible. It is a tragedy we can prevent.
- If paint is kept intact and surfaces are kept clean, children can live safely in a home painted with lead-based paint.
- Uncontrolled or uncontained dust and debris from repainting and/or renovation that disturbs lead-based paint in a well-maintained home can also expose children to unsafe levels of lead.

Changing Common Work Practices Can Protect Workers and Children

- Lead-based paint can also pose a threat to workers by causing damage to their brains, and nervous and reproductive systems.
- With small changes in work practices, workers can protect themselves and their customers from lead exposure.
- These changes include:
  - Keeping dust to a minimum.
  - Confining dust and paint chips to the work area.
  - Cleaning up during and after work. Special cleanup procedures must always be used.
  - Taking dust wipe samples to make sure cleaning removed lead-contaminated dust. (Dust wipe sampling is described in Section 5D, p. 71.)

Who Should Use This Guide?

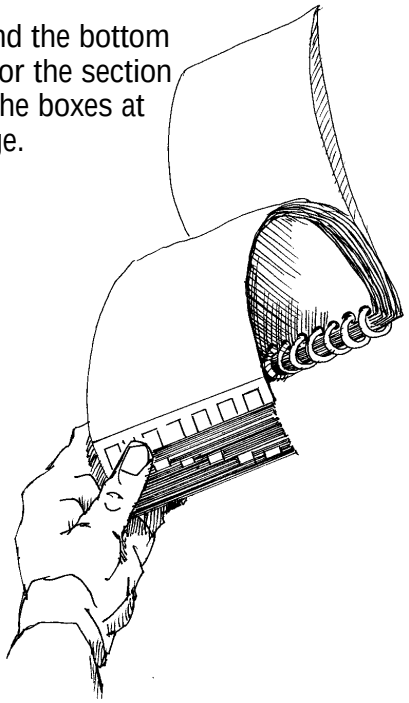
- Building maintenance workers and their supervisors
- Painters
- Repair, renovation, and remodeling contractors
- Property managers and owners
- Homeowners
- Local housing agency staff and public health staff

When Should I Follow This Guide?

- To fix a specific problem.
- During routine maintenance or apartment turnover.
- In homes where there may be a young child or a pregnant woman.
- During work supported by Federal funds that must be performed using safe work practices under Federal regulations.

This guide is divided into 5 sections.

To locate a section, bend the bottom of these pages. Look for the section you want by lining up the boxes at the bottom of each page.



CONTENTS OF THIS GUIDE

REMEMBER THESE PRINCIPLES

1. ASSUME: **Paint in Homes Built Before 1978 Contains Lead**
(Unless a lead-based paint inspection shows it doesn't.)
Exposing Anyone to Dust, Especially Children, is Bad

2. CHECK: **Federal, State, and Local Regulations**
- OSHA has rules for worker safety
- EPA and your local community have rules for waste disposal

3. AVOID: **Creating Dust**
- Use low dust work practices (for example, mist surfaces with water before sanding or scraping)

Spreading Dust
- Cover area under work with durable protective sheeting (plastic or poly)
- Keep dust contained to immediate work area

4. PROTECT: **Occupants, Particularly Children**
- Keep them away from work area
- Clean up work site before they return

Workers
- Wear proper respiratory protection for lead dust
- Keep clean
- Don't take dust home

5. CLEAN UP: **After All Work**
- Clean up is particularly important if painted surfaces were broken or wall cavities were opened
- Take dust wipe samples to make sure that it is safe for children to return

6. MAINTAIN: **A Dry Building**
- Moisture problems can cause paint failure, building deterioration, and encourage pests

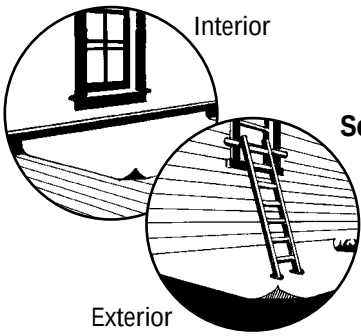
All Painted Surfaces
- Well-maintained paint generally does not pose a health risk

Clean and Cleanable Surfaces
- Keep floors and painted surfaces smooth
- Damp mop them often
- Clean rugs and carpet well

ROUTINE WORK PRACTICES

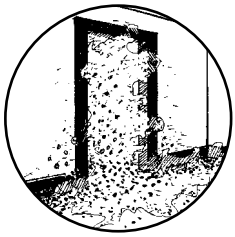
The following pictures appear throughout the Guide and refer to specific sections covering these practices.

Correct the Cause of the Problem. Before work starts, correct the conditions causing damage to the home. See Correcting the Cause of the Problem, p. 7.

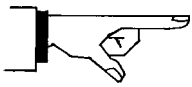


Set Up Work Area. Set up the work area properly. See Section 2: Set Up the Work Area - Interior & Exterior, p. 13 and p. 15, respectively.

Clean Up and Clear. Thoroughly clean up the work area using the procedures described in this guide. Then, take dust wipe samples to see if it is safe for children to return. See Section 4: Cleaning Up, p. 47 and Check Your Work, p. 51.



High Dust Jobs. Some activities are likely to create high amounts of dust during the job. See Section 3: High Dust Jobs, p. 45 and follow the guidelines in this section to ensure that this work is performed safely.



Important!! This symbol points out important details where special attention is needed.

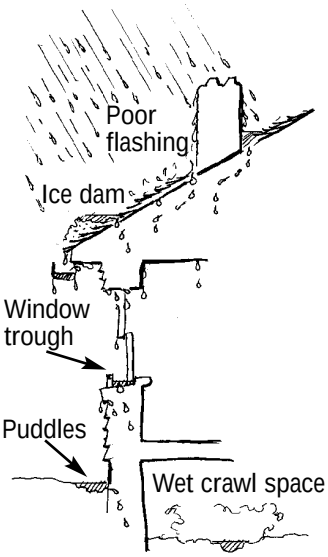
CORRECTING THE CAUSE OF THE PROBLEM

If a job involves repairs to a damaged paint surface, it is important to correct the cause of the damage, or the damage will occur again. Damaged surfaces that contain lead-based paint represent a health threat to the occupants.

The following conditions are examples of potential causes of damage to painted surfaces. Be sure that the planned work will correct these conditions if they are present.

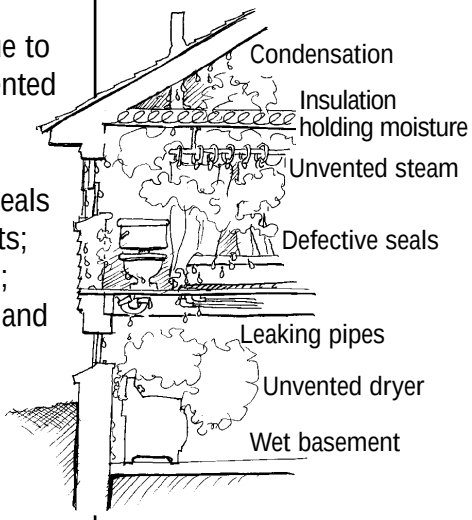
Moisture From Outside

Roof leaks; incorrectly installed flashing; defective downspouts and gutters; water collecting in window troughs; puddles of water at foundations; leaking basement walls; wet crawl spaces.



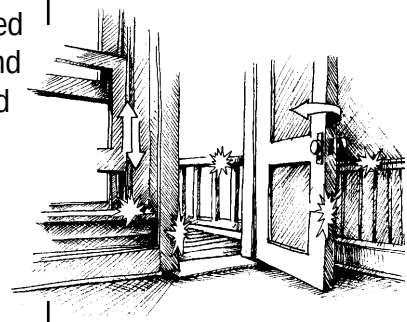
Moisture From Inside

Attic condensation due to poor ventilation; unvented steam from showers and cooking; leaking plumbing and failed seals around tubs and toilets; condensation in walls; unvented dryers; wet and poorly maintained basements.



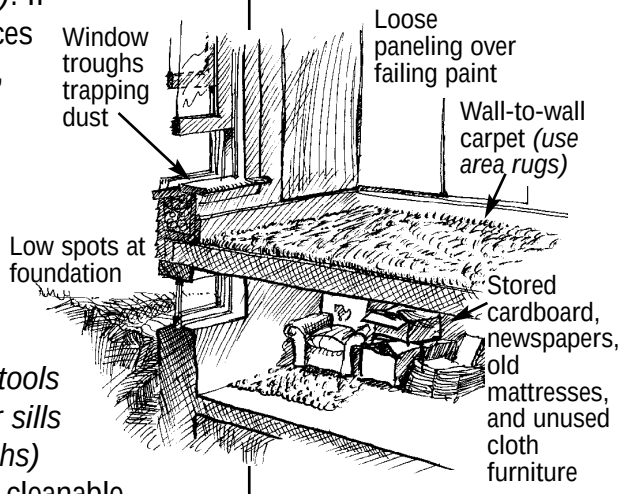
Rubbing and Impact of Painted Surfaces

Binding doors; unprotected painted walls and trim; and rubbing from opening and closing painted windows.



Places that Collect Dust and Paint Chips

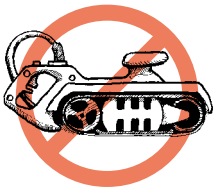
Where feasible, repair or remove places where dust and paint chips may accumulate and can't be easily cleaned *(such as old wall-to-wall carpet and unused items stored in the basement)*. If these places are damp, they may also be home to mold. Keep flat surfaces *(such as window stools or interior sills and troughs)* clean and cleanable.



Structural Damage

Some surface damage may be caused by structural damage such as wood rot, termites, foundation settlement, and foundation shift. These problems must be addressed before surface repairs are made.

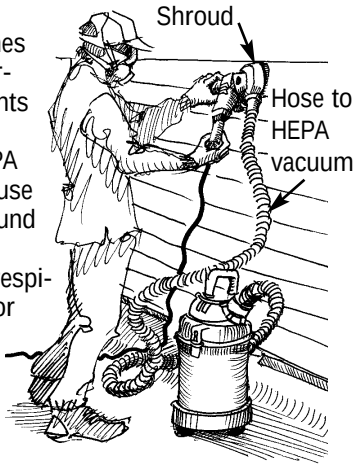
Goal: **Don't use unsafe work methods. Some work methods create such high levels of dust that they must not be used when working on surfaces that may contain lead-based paint.**



Don't Use Power Sanders or Grinders Without HEPA Vacuum Attachment.

These machines create a lot of dust that can contaminate a building and the ground around a building endangering workers, neighbors, and occupants.

Controlled Sanding or Grinding With HEPA Vacuum Attachment Is Acceptable.



If the sanding or grinding machines are "shrouded," which means surrounded with a barrier that prevents dust from flying out around the perimeter, AND attached to a HEPA vacuum, they can be used. Because some dust may still blow out around the perimeter, workers near the machine should wear half-mask respirators rated by NIOSH as N100 (or HEPA) at a minimum. Also, the work area must be completely isolated if the machine is used inside (see Section 3: High Dust Jobs, p.45). Because these tools can create high levels of dust and require additional precautions, their use is beyond the scope of this guide.

Don't Use Open Flame/High Heat Removal of Paint.

There is no acceptable use of an open flame torch or high temperature heat gun (above 1100 degrees F) to remove paint.

- It produces toxic gases that a HEPA dust canister on a respirator cannot filter out on its own (a second, organic filter is necessary).
- It creates high levels of very toxic dust that is extremely difficult to clean up.
- It can burn down a house.

Do Use a Heat Gun on Low Setting.

A heatgun set below 1100 degrees F may be used with caution. It is recommended for small areas only, such as the edge of a door, the top of a window stool, or the friction surface of a window jamb.

Don't Use Paint Strippers Containing Methylene Chloride.

Many paint strippers are potentially dangerous. Strippers containing methylene chloride should not be used because this chemical is extremely toxic and is known to cause cancer.

Other Chemical Strippers with Appropriate Precautions Are Acceptable.

Chemical strippers without methylene chloride are safer to use, as long as the precautions printed on the container are followed. Take extra precautions to mask areas near stripping.

Don't Use Uncontained Hydroblasting.

Removal of paint using this method can spread paint chips, dust, and debris beyond the work area. This result makes it difficult to clean up these hazards at the end of the job.

Contained Pressure Washing Is Acceptable.

Removal of paint using contained pressure washing within a protective enclosure to prevent the spread of paint chips, dust, and debris may be done. Because this method requires additional precautions that are beyond the scope of this guide, it should only be used by certified lead abatement workers.

Don't Use Uncontrolled Abrasive Blasting.

This work method can also spread paint chips, dust, and debris beyond the work area. This result makes it difficult to clean up these hazards at the end of the job.

Contained Blasting Is Acceptable.

Contained abrasive blasting within a protective, locally exhausted enclosure to prevent the spread of paint chips, dust, and debris may be used. Because this method requires additional precautions that are beyond the scope of this guide, it should only be used by certified lead abatement workers.

Avoid Extensive Dry Scraping or Sanding.

Extensive dry scraping or sanding create large amounts of paint chips, dust, and debris that are hard to contain.

Use Wet Methods or Limited Dry Scraping and Sanding.

Mist surfaces before scraping and sanding. Continue to mist while working. Dry scraping or sanding of very small areas (for example, around light switches or outlets) may be done if flat surfaces below these areas are covered with protective sheeting. These methods should be avoided on areas larger than 2 square feet per room, and workers must have adequate respiratory protection.

KEY STAGES OF A JOB

Quality work requires thinking through the job from start to finish. Here are the basic stages of the jobs described in this guide.

Before Starting	• Find the causes of damage • Prioritize work • Hand out lead hazard information pamphlet (see note below)
Work	• Set up work area — Separate work space from occupied space — Isolate high dust areas • Correct cause(s) of problem(s) • Complete the job using safe work practices, such as those shown in this guide
Finish the Job	• Clean up thoroughly • Dispose of waste safely • Check quality of work and correct problems
Maintain the Work	• Educate occupants about risks from lead-based paint • Maintain a safe and healthy home

Renovation Notice About Lead Safety

Note: Federal law requires that owners and occupants of a house or apartment built before 1978 receive the pamphlet *Protect Your Family From Lead In Your Home* prior to the start of renovation work. The requirement applies to any work that will disturb a painted surface larger than 2 square feet when the work is done by:

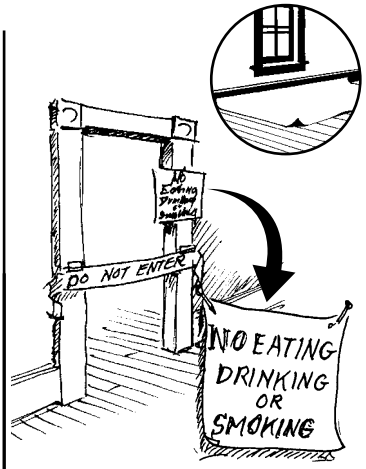
- Contractors who have been hired to do any kind of work. Among others, this can apply to painting, drywall, and electrical trades.
- Owners of rental properties who have work performed by maintenance staff.

See p. 67 for more information about this requirement.

Restrict Access

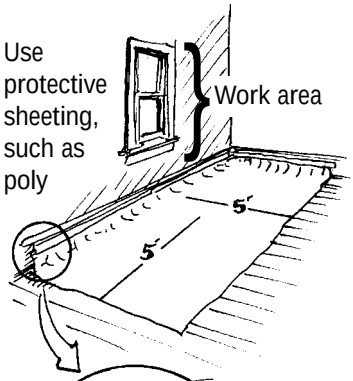
- Ask occupants to leave the room where work will be done.
- Have them stay out until final cleanup.
- Place "DO NOT ENTER" tape across doorway or post sign.

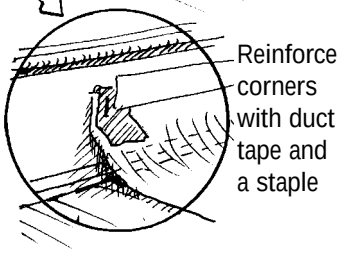
Caution: If the work will create a large amount of dust, follow the guidelines in Section 3: High Dust Jobs, p. 45.



Protect Floor

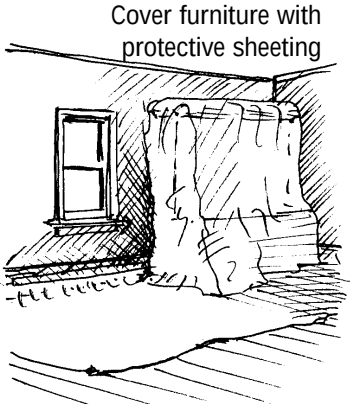
- Place protective sheeting on floor extending about 5 feet from the work area.
- Tape protective sheeting to the baseboard under work area using masking tape (or durable tape where masking tape doesn't work).





Protect Furnishings

- Remove drapes, curtains, furniture, and rugs within 5 feet of work area.
- Cover any furniture within 5 feet of work area that cannot be moved.



Stock the Work Area

- Put all necessary tools and supplies on protective sheeting before beginning work to avoid stepping off the protective sheeting.

Tracking

- To avoid tracking dust off the protective sheeting, wear non-skid shoe covers on protective sheeting and remove them each time you step off the protective sheeting.

OR

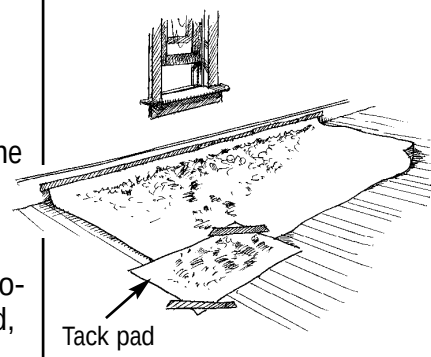
- Wipe both top and bottom of shoes with a damp paper towel each time you step off the protective sheeting.

OR

- Clean off shoes using a tack pad (a large sticky pad that helps remove dust).

OR

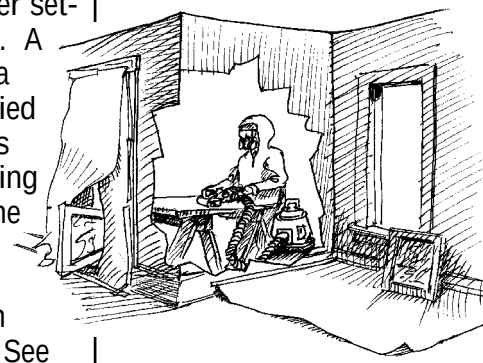
- Remove shoes every time you step off the protective sheeting.



Set Up Dust Room (Optional)

- When working on components that can be moved, such as doors and window sashes, consider setting up a dust room. A dust room is an area isolated from occupied areas where workers can do dust generating work. The door of the room is covered with a flap and the floor is covered with protective sheeting. See Section 5D: Setting Up a Dust Room, p. 73.

- Using a dust room contains dust and paint chips, and makes cleanup easier. It also helps protect occupants, as well as other workers.



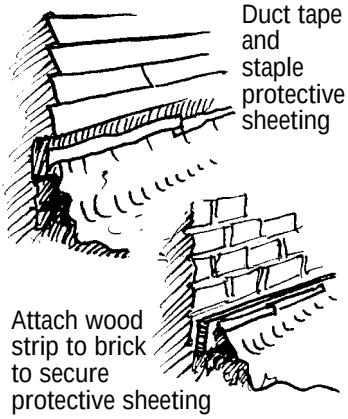
Protect Ground

- When working on the ground floor, lay protective sheeting 10 feet from work surface or as space permits. When working on the 2nd story or above, extend the sheeting farther out.
- Vertical shrouding on scaffolding should be used if work is close to a sidewalk, street, or another property, or the building is more than three stories high.

Important: Covering the ground protects the soil from contamination by lead-based paint chips and dust.

Attach Protective Sheeting to Wall

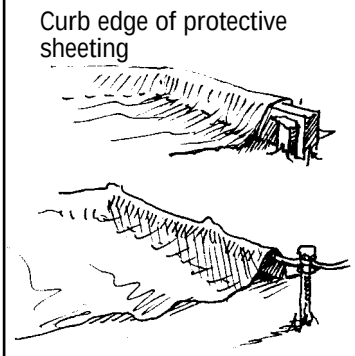
- Protective sheeting can be taped and/or stapled to wood siding or ribbon board. A wood strip may need to be attached to a masonry wall.



Build Curb

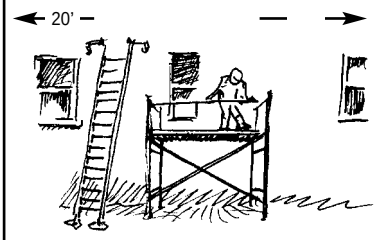
- Build a curb around work perimeter when a sidewalk or another property is near, or when wind may blow debris off protective sheeting.

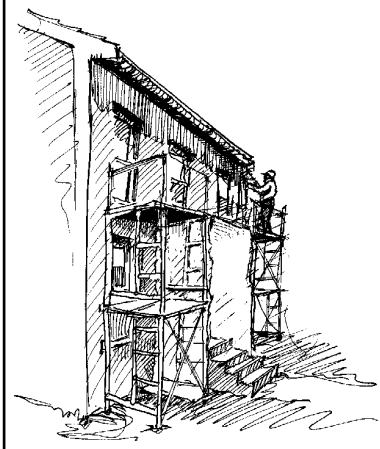
Caution: This may pose a tripping hazard.



Cover Windows and Doors

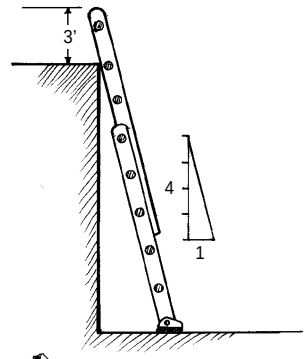
- All windows and doors within 20 feet of the work area must be closed. If they cannot be closed, seal with protective sheeting during work.
- If an entrance must be used that is closer than 20 feet, place a shroud above and on the sides of the entrance.

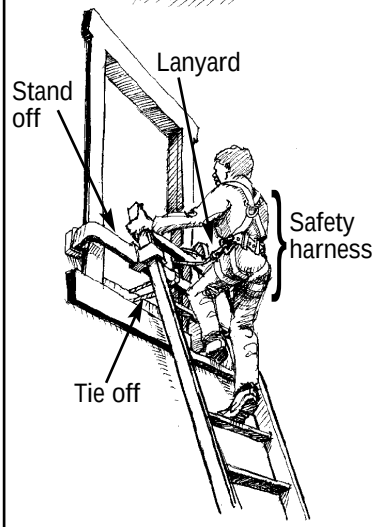




Use Ladder Safely

- Don't use a metal ladder near power lines.
- Check feet and rungs of ladder to make sure they are sound.
- Place the base of the ladder at a distance from the wall using a height to base ratio of 4:1.
- Ladder should extend 3 feet past the top of the surface area where work will be done.
- If using protective sheeting to cover the ground, cut slots in the sheeting and place the ladder feet directly on the ground—not on top of the protective sheeting.
- Tie off the top of the ladder, where possible.
- If the work is taking place at heights above 10 feet, tie off the ladder and secure yourself with a lanyard and harness.





Protect Your Eyes

- Always wear safety goggles or safety glasses when scraping, hammering, etc.

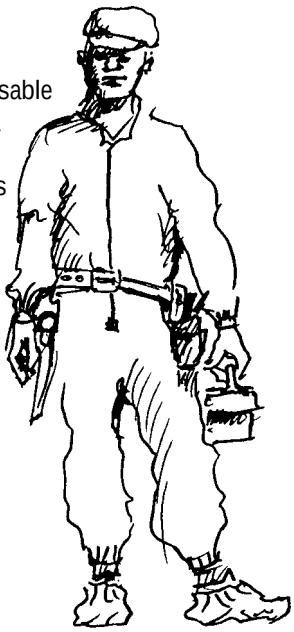
Keep Clothes Clean

OR

- At end of work period, remove dusty clothes and/or vacuum off dust. Wash them separately. Do not use compressed air to blow dust off clothing.

Use Disposable Covers

- Wear disposable protective clothing covers. Disposable protective clothing covers can be stored in a plastic bag and reused if fairly clean and there are no rips. Small tears can be repaired with duct tape.
- Wear painter's hat to protect head from dust and debris.



Disposable suit & shoe covers

Wear Respiratory Protection

- When work creates dust or paint chips, workers should wear at least a NIOSH-approved respirator for lead work. See Section 5D: Respiratory Protection, p. 69.

Post Warning

- Post sign and avoid eating, drinking, or smoking on site.

Sign at work site entrance

Wash Up

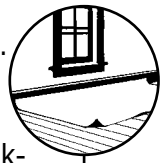
- Wash hands and face each time you stop working.

PROBLEM A wall or ceiling is sound, but has holes, uneven surfaces, or flaking and peeling paint.

SOLUTION Prepare wall or ceiling to create a sound, intact surface for painting. Use methods that create a minimum amount of dust.

Set Up

- See Section 2, p. 13.



Remove Deteriorated Paint

- Wet scrape any loose, peeling, or flaking paint.

Fill and Patch Holes

- If removal of damaged edges is necessary, mist surface before removal.
- Skim and fill holes and cracks less than 1/16 inch wide with a non-shrinking spackle compound.
- If sanding is necessary to feather edge, use wet abrasive sponge or wet-dry sandpaper with water.

Prep Surface

- Clean wall, particularly in kitchen area.
- De-gloss surfaces as necessary (use liquid sandpaper or wet-dry sandpaper with water).

Important: Allow surface to thoroughly dry before priming.

- Prime surface using high-grade primer.
- Apply top coat. Use one or two coats as necessary.

Clean Up and Clear

- See Section 4, p. 47.

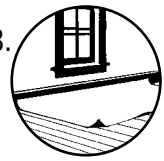
INTERIOR SURFACE PREP CONT'D

PROBLEM A wall or ceiling has cracking, peeling, or alligatoring paint, but most of the surface is sound.

SOLUTION Use a coating designed for longer durability than paint. Some of these coating systems include mesh.

Set Up

- See Section 2, p. 13.



Liquid Coating

Test Surface

- Where a long-lasting system (sometimes called encapsulant) is to be brushed, sprayed, or rolled, surface preparation is very important.
- If an encapsulant is used, use one that is approved by a state government. If your state does not have a list of approved encapsulants, it is recommended that you check with a state that does. Contact the National Lead Information Center at 1-800-424-LEAD for the telephone numbers of states with lists.
- A sample area should be tested before application. Follow manufacturer's instructions exactly.

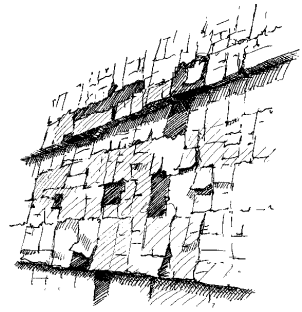
Apply System Base Coat

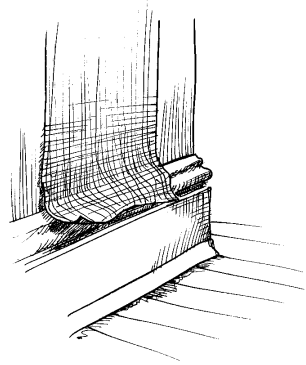
- Apply system base coat with a high nap (approximately 3/4 inch) roller. Follow the product instructions.

Mesh System

Apply Mesh

- Where there is extensive cracking or alligatoring, consider using a system that includes mesh because it can add strength and durability.
- Cut the mesh leaving a 2 inch overlap at ceiling and baseboard.
- Install so that mesh is plumb.

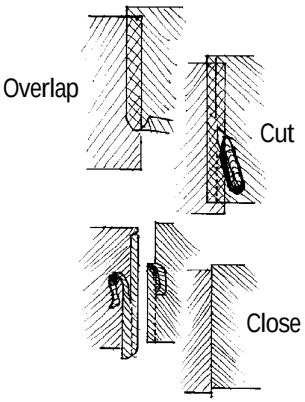


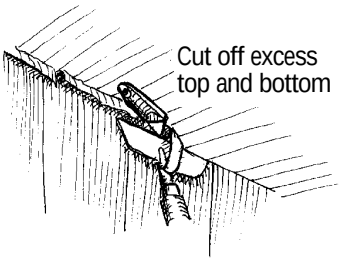


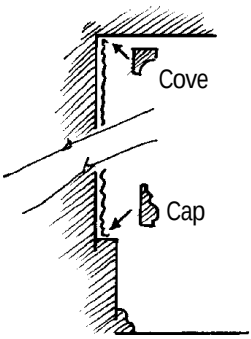
Important: For mesh systems, follow manufacturer's instructions exactly.

Apply Mesh Cont'd

- Press mesh into the base coat with a wallpaper brush, spackle knife, or roller.
- Overlap seams by 1 inch. Cut down the center of the seam and remove the 2 waste strips. Let seams butt against each other.
- Using a spackle knife, press the mesh at the bottom and top. Then cut off the excess.
- Roll on the top coat. Make sure that there is complete and even coverage.
- If there is a risk of further peeling, the top edge of mesh can be reinforced with cove or crown molding, and the bottom reinforced with base cap.







Clean Up and Clear

- See Section 4, p. 47.

EXTERIOR SURFACE PREP

PROBLEM Exterior wood surface is chipping and peeling and may be painted with lead-based paint.

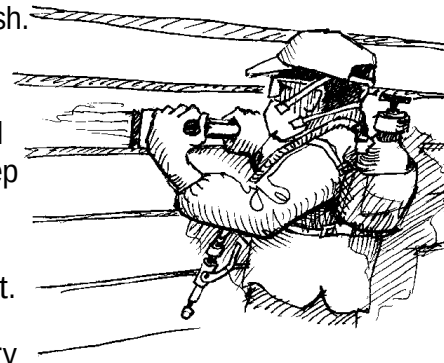
SOLUTION Prepare a sound, intact surface for painting. Use methods that create minimal dust.

Set Up

- See Section 2, p. 15.

Clean Surface

- Clean wood with detergent (or lead-specific cleaner) and scrub brush.



Wet Scrape

- Wet scrape woodwork and siding. Mist small areas frequently to keep down dust. Using a pump sprayer in a knapsack is convenient.

Mist and Sand

- Wet sand using wet-dry sandpaper or wet sanding sponges. A power sander may be used if attached to a HEPA vacuum, and the worker is wearing respiratory protection.

Paint

- Prime and paint.

Clean Up and Clear

- See Section 4, p. 47.

Dispose of Water

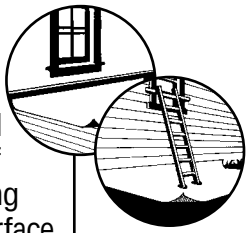
- If you dislodge paint using pressure washing, water must be collected and may need to be tested (see local regulations for water disposal procedures in your area).

PROBLEM Areas of paint are peeling or flaking or there is evidence that a child has been chewing on a painted surface. An example of a surface accessible to children is the inside nose of a window stool (inside sill).

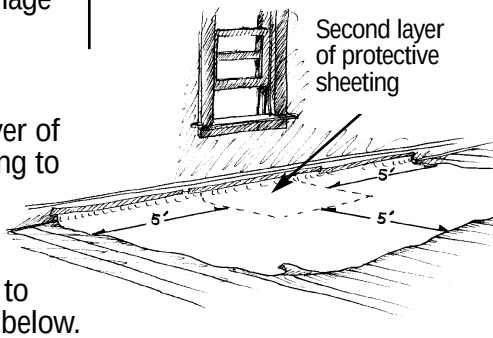
SOLUTION Remove all paint using methods that do minimum harm to the surface, create minimal dust, and are safe for workers.

Set Up

- See Section 2, p. 13 or p. 15.
- When using chemical strippers, the edge of the protective covering below the painted surface must be tightly fastened to the wall so that the stripper doesn't damage other surfaces.



- Recommendations:
  - — Use a second layer of protective sheeting to collect stripping waste. The first layer remains in place to protect surfaces below.
  - — For removable components, consider having paint stripped off-site or installing an entirely new component.



Chemical Removal

- If a large area of paint is to be stripped, consider hiring a professional.
- Follow the manufacturer's instructions carefully when using chemical paint strippers.

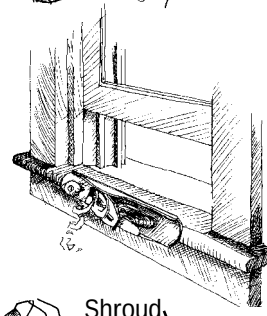
Caution: If using a caustic stripper, neutralize the surface according to the manufacturer's directions before applying new paint.

Chemical Removal Cont'd

- After stripping paint from wood, a paint residue will remain in the wood. Use caution when sanding the bare wood because it may contain lead residue.

Hand Stripping

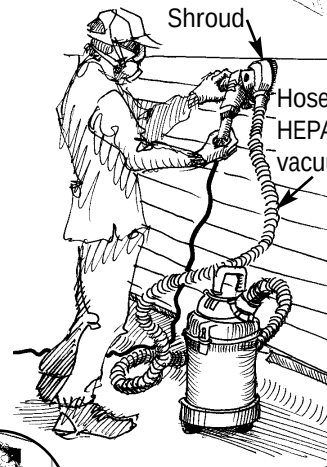
- Paint can also be removed with a paint scraper. Be sure to mist areas where paint is to be removed. Using a hand plane removes all paint and all residue. It also creates very little dust.

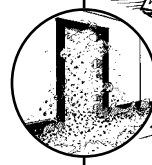


Mechanical Stripping

- When using power tools, such as sanders or grinders to remove or feather paint, make sure the tool is shrouded and attached to a HEPA vacuum. Respiratory protection is still necessary.

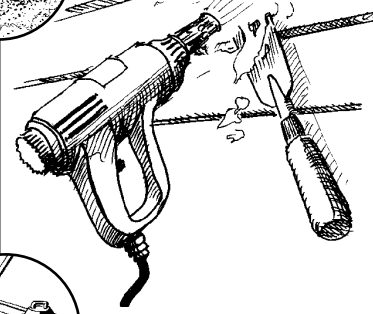
Caution: High dust potential.





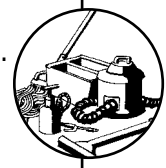
Heat Stripping

- When using a heat gun to remove paint, be sure the temperature setting is kept below 1100 degrees F.



Clean Up and Clear

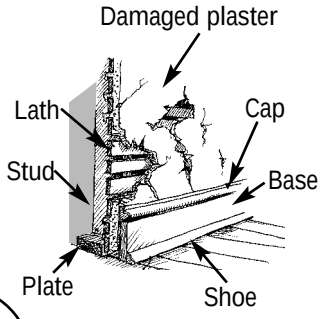
- See Section 4, p. 47.



DAMAGED INTERIOR WALL OR CEILING

PROBLEM

Wall or ceiling area is too badly damaged to repair, and demolition would create a large amount of dust.

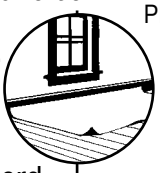


SOLUTION

Install a new durable surface over the damaged area using methods that create little dust and do not require demolition.

Set Up

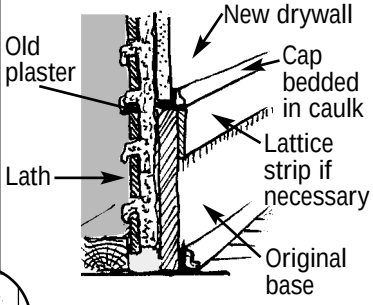
- See Section 2, p. 13.



Cover With Drywall

- Mechanically fasten drywall or veneer board through damaged plaster to studs.
- Seal the perimeter, particularly the bottom edge.

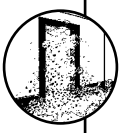
Drywall laminate sits on old base



—On Base

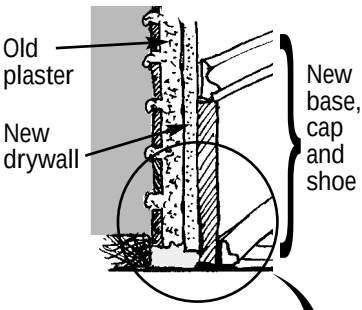
- Avoid removing existing base.

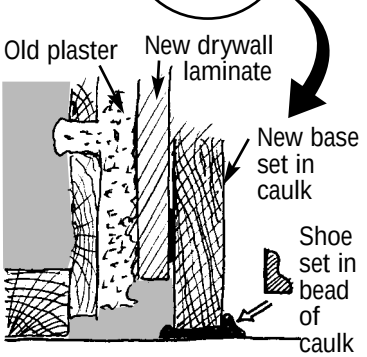
Caution: High dust potential.



- Where drywall laminate will end above existing base, install shoe or cove molding into bead of caulk to seal.
- If laminate comes close to flush with base face, a strip of lattice bedded in caulk can be used to seal joint.

New base over drywall laminate



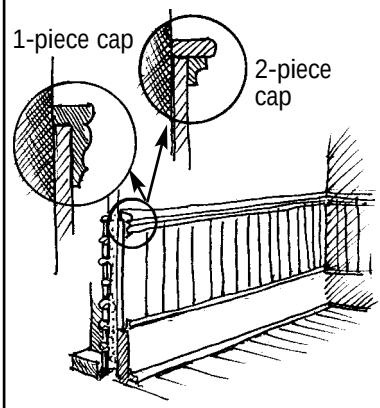


—Behind Base

- Where base will be replaced, bed the new base in bead of caulk on the back and bottom. Then, bed shoe molding in a bead of caulk to seal.

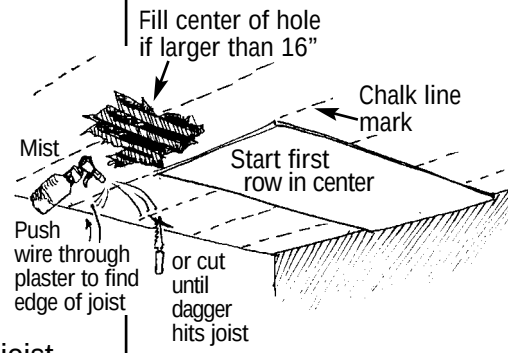
Install Wainscoting

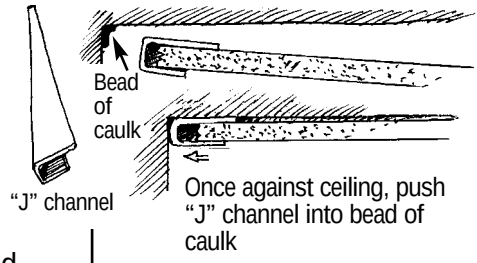
- Where bottom 3 or 4 feet of wall is damaged beyond repair, the wall can be enclosed with wainscoting. The wainscoting can be installed above the existing baseboard.
- Bed the lower edge in a bead of caulk with a trim piece also bedded in caulk.
- Finish top with cap molding.



Repair Holes in Ceilings

- When laminating drywall to ceilings, it is critical to screw into joists, not lath.
- Old joists may be irregularly spaced, so each joist center must be located.
- A drywall dagger can be used to find the joist edge, as can a heavy gauge wire pushed through the plaster.
- The drywall edges should be taped and spackled.
- If walls will not be spackled, perimeter edges can be finished with "J" channel bedded in a bead of caulk.





Clean Up and Clear

- See Section 4, p. 47.

PROBLEM An exterior painted surface is badly damaged.

SOLUTION Whenever possible, repair the surface, prep, prime, and paint exterior trim and siding, and then maintain the surface. This method is the preferred approach.

When a surface is too badly damaged to repair, install vinyl or aluminum siding, or aluminum wrap to create a safe, durable covering that protects the surface and does not cause further deterioration.

Note: Siding must be installed correctly or it may lead to wood rot and/or interior paint failure. Siding may also become home to insects and mold. Correct installation is critical in both hot and cold climates.

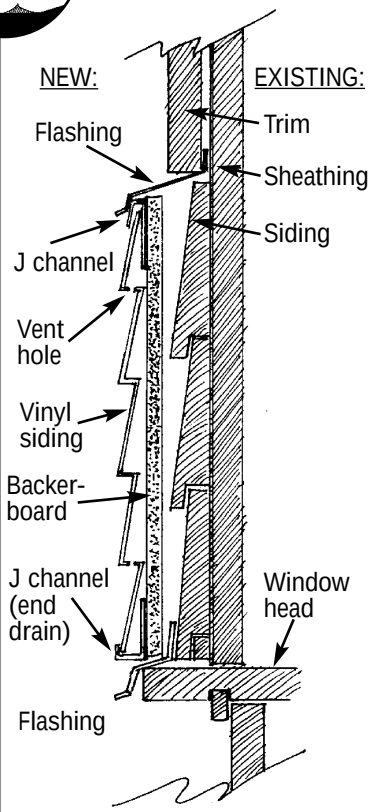
Cover Deteriorated Surface With Siding

Set Up

- See Section 2, p. 15.

Install Siding

- Carefully follow the manufacturer's instructions for installing siding over an existing surface.
- Use a styrene backboard with an R-value of at least R2.
- Take care to properly install flashing, especially at horizontal trim and window and door heads.
- The siding system must be well vented but sealed at the bottom to prevent flaking and peeling paint from falling from behind the siding to the ground.
- Be sure that water can drain out.



Important: The entire home should be well ventilated to prevent moisture build-up that can cause structural damage and/or paint failure.

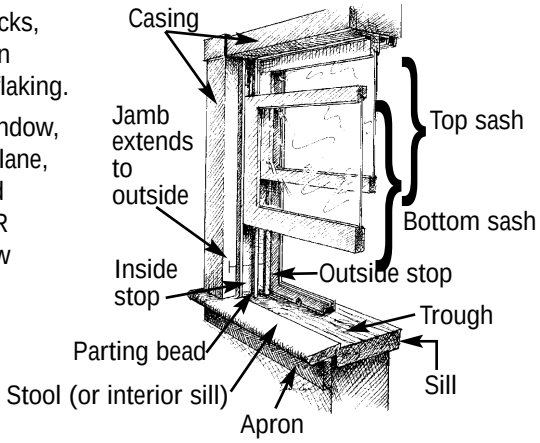
Clean Up and Clear

- See Section 4, p. 47.

STICKING WINDOW

PROBLEM Window sticks, and paint on window is flaking.

SOLUTION Remove window, scrape or plane, repaint, and reinstall, OR install a new window.

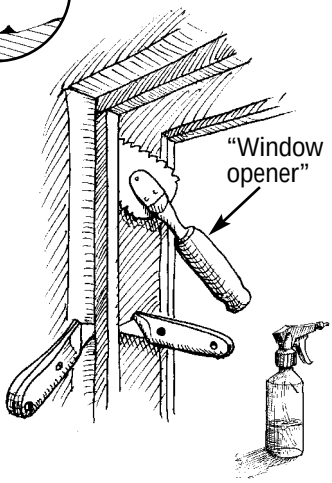


Set Up

- See Section 2, p. 13.

Loosen Painted Sashes

- If window is painted shut, mist and cut window joint with utility knife. Then open joint between sash and stop with a “window opener.” Mist while working.



Remove Inside Stop Molding

- Mist and remove stop molding from sides and head. Dispose of properly unless it has historic value.

Remove Bottom Sash

- If counterweight cord or chain is attached to the sash, knot it or tie it to a stick when removing from sash so it does not get pulled into the weight compartment.

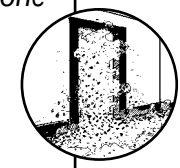
Remove Top Sash

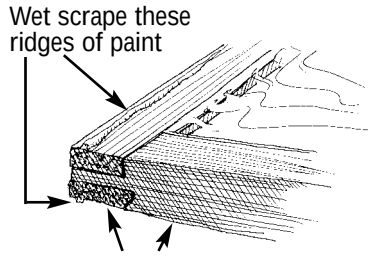
- Mist and remove parting bead. Then remove the top sash.

Wet Scrape or Plane

- Set sash on a work bench, clamp, and wet scrape all surfaces. Or use a power planer attached to a HEPA vacuum.

Caution: High dust potential. This work can be done in a dust room. See Section 5D: Setting Up a Dust Room, p. 73.





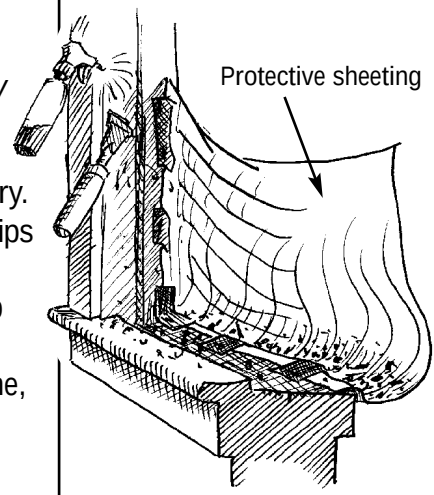
Repair, Reglaze, Seal, and Paint

- Reglaze and repair as necessary. Wet sand, prime, and paint sash and jamb. Seal, but do not paint sash edges.

Important: Seal bottom edge of sash, particularly end grain.

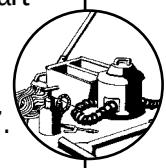
Repair and Paint Jamb

- Repair jamb if necessary.
- To prevent dust and chips from falling outside the window, install a scoop of protective sheeting.
- Then wet scrape, prime, and paint.



Reinstall Sash

- Reinstall sash with new or wet scraped and repainted stop and parting bead.



Clean Up and Clear

- See Section 4, p. 47.

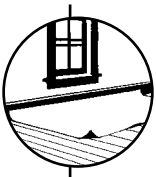
L O O S E W I N D O W

PROBLEM Loose sashes (lower and upper) do not operate smoothly, and they allow heat loss. Also, sashes rubbing against a painted jamb create paint dust.

SOLUTION Install sashes in window compression jamb liner to seal window and allow sashes to move easily without rubbing against jamb. If sashes or window components are badly deteriorated, replace window.

Set Up

- See Section 2, p. 13.



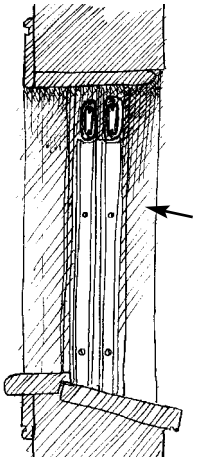
Install Window Jamb Liners

Remove Sashes and Paint

- Follow directions on pages 29 and 30.

Cut Jamb Liners

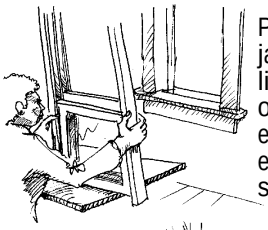
- Cut liners to fit in jamb (1/4 inch short of dimension). If pulley system is being saved, cut off directly below pulley.



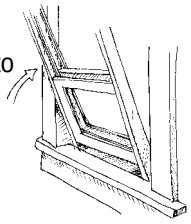
Window jamb liner installed below pulleys to keep counterweight system working

Install Jamb Liners

- Press jamb liners onto sash.
- Attach jamb liners with brass screws on top and bottom of each side.



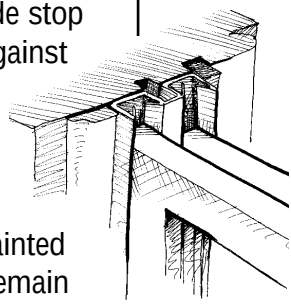
Press jamb liners onto edge of each sash

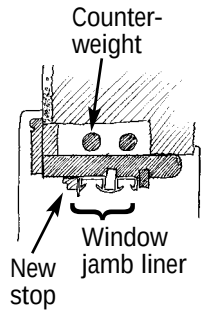


Slide sashes and liners into jamb and put two brass screws into each side

Install Stop Molding

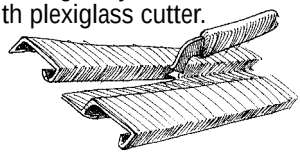
- Install new inside stop molding tight against jamb liner.





- If top sash is painted shut and is to remain fixed, adjust the above steps as follows:
  - — Cut away flange between channels of jamb liner.
  - — Leave parting bead intact and install bottom sash as above.

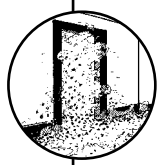
Cut flange of jamb liner with plexiglass cutter.



Replace Sash/Window

Choose an Option

- If the sashes or other components are too badly deteriorated to save, consider one of the following options:
  - — Install new sashes in tilt-in jamb liners.
  - — Replace sashes, stops, and parting bead with a vinyl or aluminum window unit.
  - — Replace entire window including jamb casing, stool, and apron.

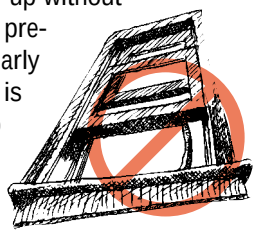


Clean Up and Clear

- See Section 4, p. 47.

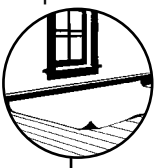
PROBLEM

Window sash is loose and won't stay up without support. Propping the window open presents a danger to occupants, particularly children. When a window jamb liner is used, it may not be sufficient to keep the window open. (See page 31.)



SOLUTION

Repair counterweight system or install hardware so the window will stay open securely, or replace window.



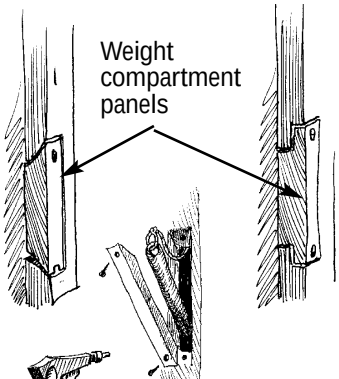
Set Up

- See Section 2, p. 13.

Option #1: Reinstall Counterweight System

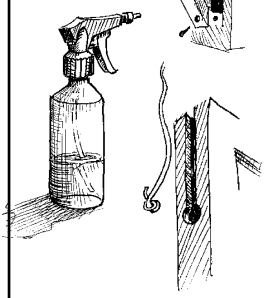
Open Counterweight Panel

- Find top of panel. Mist and scrape paint from top edge to find screw or nail holding in panel. Remove screw and pry off panel.



Vacuum

- Vacuum weight compartment with HEPA vacuum.

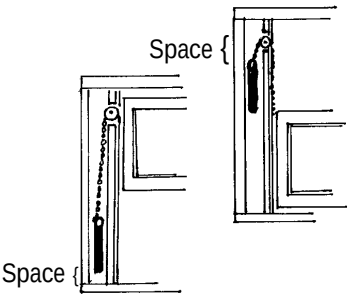


Remove Counterweight System

- Remove old rope or chain from counterweight and edge of sash.

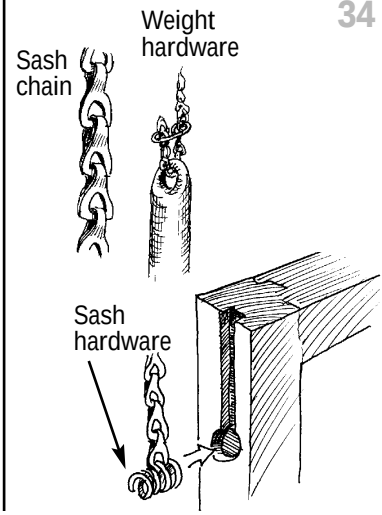
Reinstall Counterweight System

- Cut chain so weight is above bottom of weight compartment when open and weight is below pulley when closed.



Reinstall Counter Weight System Cont'd

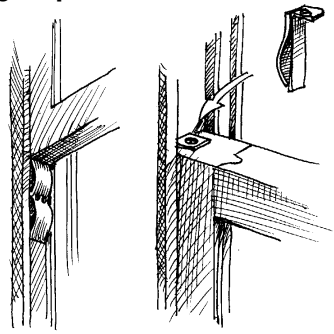
- Drop chain over pulley into weight compartment, pull out through panel opening, and attach to weight.
- Attach other end to edge of window sash using spring fixture. You may want to secure chain with fence staple.



Option #2: Install Spring Clips

Install Spring Clips

- Screw spring clips on to window as directions indicate. (2 styles shown.)



Option #3: Install "Hold Open" Hardware

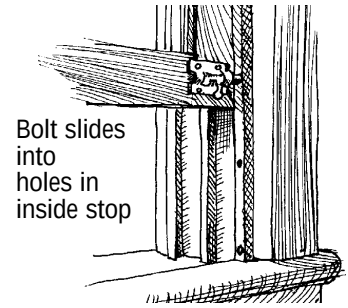
Install Slide Bolt

- Screw slide bolt to bottom of window sash. Tap bolt to mark where you want to drill holes for bolt. Drill holes in inside stop at 3 or 4 points.

OR

Attach Hardware

- Attach hardware that uses spring to press against stop. To move sash, press lever. Release lever when window is at desired height.



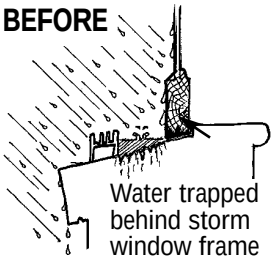
Clean Up and Clear

- See Section 4, p. 47.

DETERIORATED WINDOW TROUGH

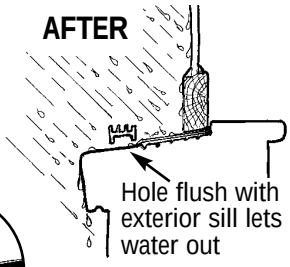
PROBLEM Storm window traps water behind the frame causing paint deterioration and damage to the sill.

SOLUTION Drill a drain hole through bottom of the storm window frame.



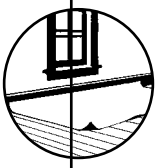
PROBLEM Window trough surface is damaged and difficult to clean.

SOLUTION Install smooth and cleanable surface in window trough.



Set Up

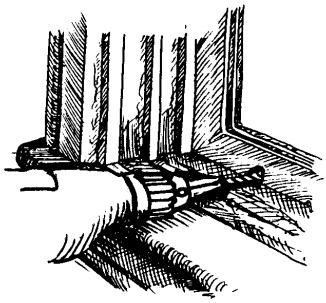
- See Section 2, p. 13.



Drill Drain Hole

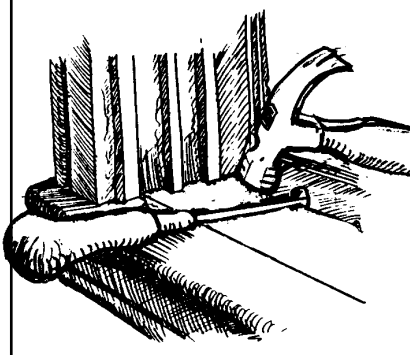
Drill

- To allow drainage, drill 2 holes through frame of storm window flush with sill. Drill holes approximately one quarter of the way from both sides. First, drill a 1/8 inch pilot hole, then the 3/8 inch hole.



Dent

- If flashing is installed in window trough and covers any part of the drain hole, run awl through drain hole. Tap with hammer to form dent in flashing to drain out water.



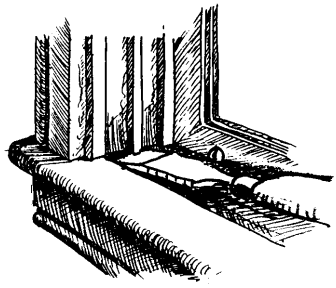
Cover Trough with Flashing

Wet Scrape

- To make surface flat, wet scrape high points and remove any fasteners from trough.

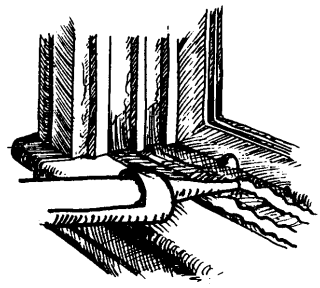
Cut

- Cut flashing 1/4 inch shorter than the width and length of trough.



Chisel or Notch

- To allow flashing to fit tight to jamb, drive chisel under parting bead and outside stop — or notch each side of the flashing at these two points.

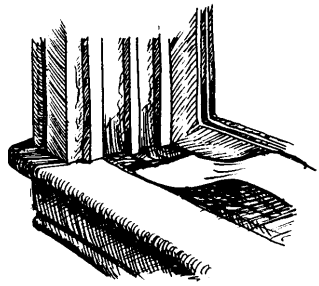


Check Fit

- Then slide flashing in to check fit. Remove and trim if needed.

Fasten

- To fasten flashing, run bead of adhesive caulk around perimeter of trough.

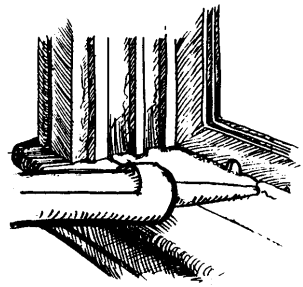


Install Flashing

- Bed flashing in adhesive caulk bead and press down.

Seal

- Run a bead of caulk around perimeter of flashing. If necessary wipe off excess caulk with damp cloth. Try not to smear caulk on face of flashing.



Important: Do not cover drain hole with caulk.

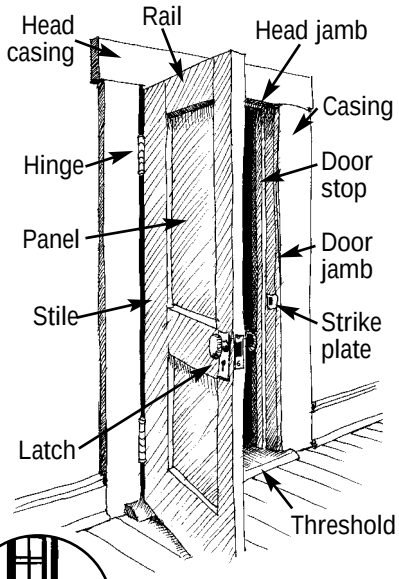
Clean Up and Clear

- See Section 4, p. 47.

DOOR NEEDS ADJUSTMENT

PROBLEM

Edge of door is crushing against jamb on hinge side; or door is rubbing on latch side because hinges are loose. When paint on a door rubs or is crushed, dust and paint chips can result.



SOLUTION

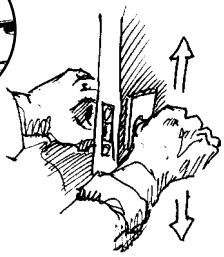
Adjust the door so that it opens and closes without damaging painted surfaces.

Set Up

- See Section 2, p. 13.

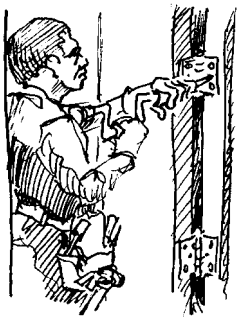
Check Door

- Grasp knob and try to move door up and down. If hinges are loose, door will move.



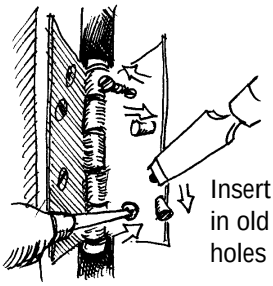
Remove Screws

- Remove screws that are most loose, but not all screws, so door remains hung.
  - — Clear paint from screw notch with hammer and small screwdriver.
  - — Unscrew. If screw head is stripped, use screwdriver bit in a brace.



Fill Hole

- Drive 3/16 inch or 1/4 inch dowel into screw holes as necessary to fill each hole. Cut dowels flush.



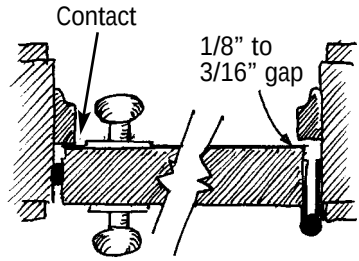
Insert dowel in old screw holes

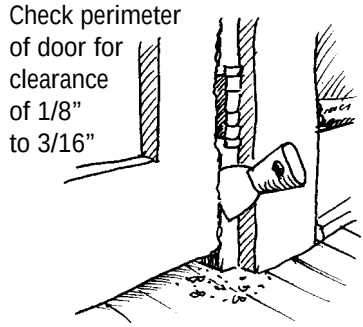
Install New Screws

- Replace screws. Use longer screws if necessary. Using a screwdriver bit on a brace makes this easier. Then remove and replace remaining screws as necessary.

Adjust Stop

- Face of door should only contact the stop on the latch side of door frame. It should not crush or rub head or hinge side stop.
- Where stop is nailed, remove and replace with new matching stop. Leave 1/8 inch space between hinge, head stop, and the face of the door.



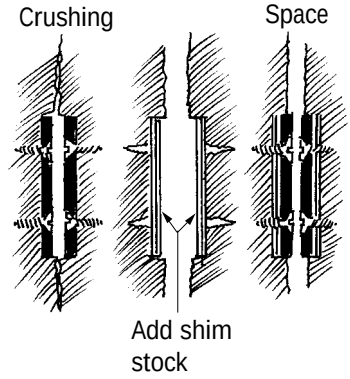


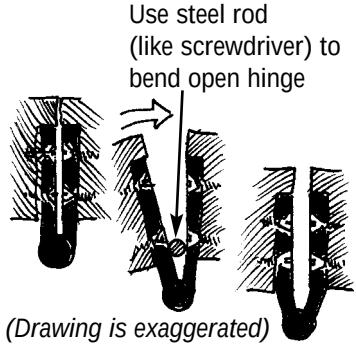
Check Clearance

- If putty knife can't fit in gap between door and jamb at <u>all</u> points, crushing of painted surfaces may be occurring.

Adjust Depth of Hinge Leaf

- If door is crushing hinge side and there is more clearance than necessary on the latch side, install metal shims behind hinge leaves. Keep at least 1/8 inch clearance on leaf side and 1/8 inch clearance on latch side. If not enough clearance, see p. 39.
- If only a small increase is needed between leaves of hinge to create a gap between door edge and jamb, place a steel rod between hinge leaves near pin and close door to slightly bend apart leaves.

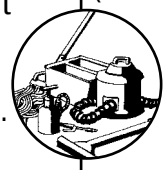




(Drawing is exaggerated)

Clean Up and Clear

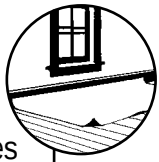
- See Section 4, p. 47.



DOOR RUBS OR STICKS

PROBLEM Door is scraping on latch side; or door is crushing jamb on latch side and there is not enough clearance on latch side to add shims to hinges. When paint on a door rubs or is crushed, paint chips can result.

SOLUTION Plane edges of door so that it operates smoothly and does not rub.

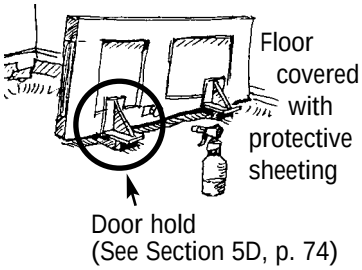


Set Up

- See Section 2, p. 13.

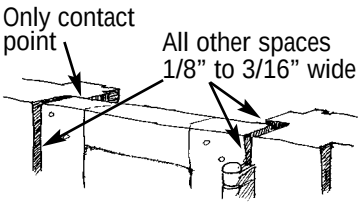
Remove Hinge Leaves

- Remove pins from hinges and hinge leaves from door.
- Set door on edge in a door hold. (See Section 5: Building a Door Hold, p. 74.)



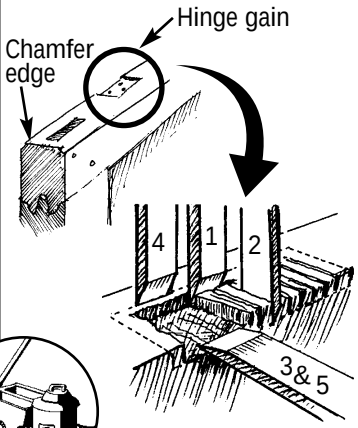
Hand Plane Edge

- Mist surface and hand plane a chamfer edge.
- Use a smooth bench or jointer plane (not a block plane) to remove the rest of the paint from the edge. Continue to mist while working. If a power planer is used to remove paint, it must be attached to a HEPA vacuum. Some power planers need an adaptor to accept HEPA attachments.
- Once paint is removed, use either a hand or power planer.



Recut Gains

- Then, recut gains as necessary so hinge leaf is set about halfway into gain.



Seal Edges

- Seal edges of door, particularly the bottom, and rehang.

Clean Up and Clear

- See Section 4, p. 47.

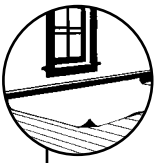
CHIPPING PAINT ON STAIRS OR FLOOR

PROBLEM Painted staircase treads, risers or floors are worn, or the paint is chipping. Paint and other coatings used on staircases and floors in older homes often contain lead. Everyday friction and wear can produce paint chips and dust.

SOLUTION Cover portions of stairs or floor that are worn with durable material.

Set Up

- See Section 2, p. 13.



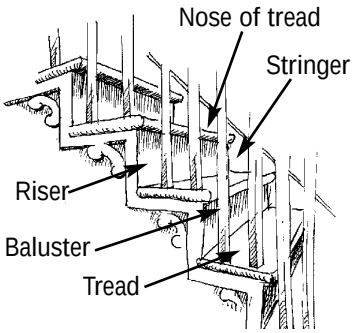
Stairs – Option #1: Install Tread Covers and Riser Enclosures

Wet Scrape

- Mist and wet scrape any loose paint on treads and risers, particularly on edges.

Prime and Paint

- Prime treads and risers. Paint edges that will not be covered by enclosures.

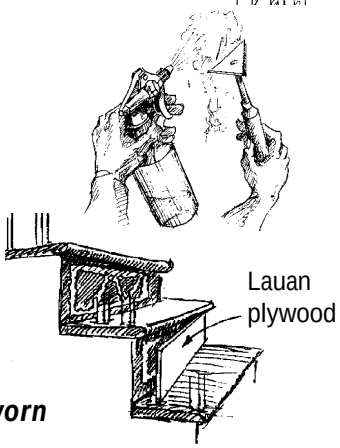


Install Riser Enclosure

- Cut 1/4 inch lauan plywood to fit each riser. Sand exposed edges of lauan.

Fasten

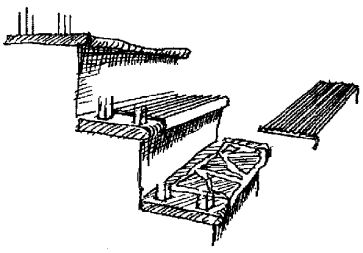
- Back caulk perimeter of riser with adhesive caulk. Press tight or nail with finish nails.



If nose tread is not worn

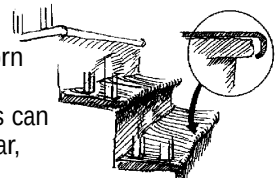
Cut and Install Tread Cover

- Cut cover to fit over the tread and nose.
- Install cover with adhesive caulk or screws.



If nose tread is worn

PROBLEM Installing a rubber tread over a worn tread nose creates a hollow space under the rubber tread cover. This can cause the rubber tread cover to tear, posing a tripping hazard.

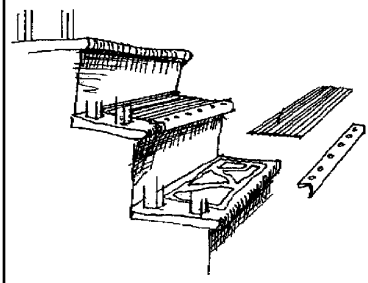


Cut and Install Tread Cover

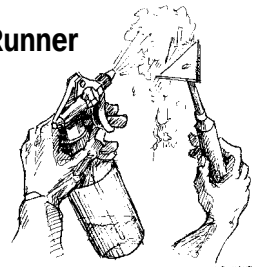
- Cut tread cover to fit from the riser to rear edge of nose. Install with adhesive caulk or screws.

Install Metal Nose Cover

- Screw metal cover over edge of tread nose. It will span the worn area of the nose.



Stairs – Option #2: Install Staircase Runner



Wet Scrape

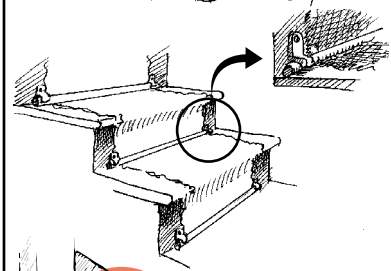
- Mist and wet scrape any loose paint on tread and riser, particularly on edges.

Prime and Paint

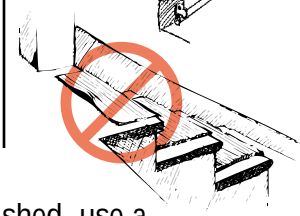
- Prime and paint treads and risers.

Install Runner

- Staple runner to top of top riser. Then fasten with staircase bars so runner may be easily removed for cleaning.



Important: Do not install runner or tread cover on landing of upper floor where its rear edge may become a tripping hazard.



Floors

Prep Surface

- If a floor needs to be refinished, use a floor sander attached to a HEPA vacuum.

Caution: High dust potential.

Cover

- Apply a coating to the floor to keep it smooth and cleanable.
- To maintain a smooth and cleanable surface, it is recommended that the use of wall-to-wall carpeting be avoided. Area rugs can be used instead.

Clean Up and Clear

- See Section 4, p. 47.

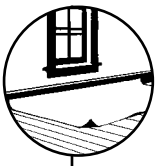
CHIPPED OR DAMAGED IMPACT SURFACES

PROBLEM Outside corners of walls, edges at passages, as well as trim, base cap, and shoe molding are being chipped due to impact from doors, furniture, and other objects. If these surfaces are covered with lead-based paint, the paint chips and the dust created may pose a health threat.

SOLUTION Protecting these surfaces with a durable material can prevent the creation of paint chips and dust.

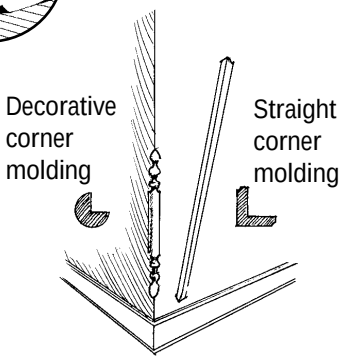
Set Up

- See Section 2, p. 13.



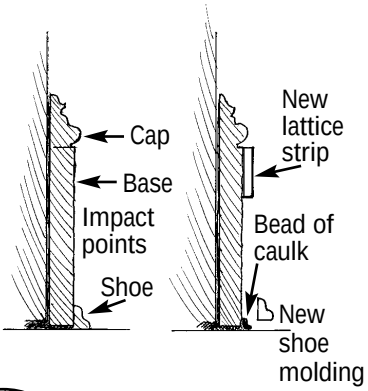
Enclose Outside Corner

- Cover outside corners of walls with corner molding. Attach with nails and/or with a bead of adhesive.



Protect Base

- In places where a baseboard shows signs of impact, replace shoe and protect cap with lattice strip.
- When replacing shoe, bed new shoe in bead of caulk to seal out moisture and prevent infiltration of dust.



Clean Up and Clear

- See Section 4, p. 47.

H I G H D U S T J O B S

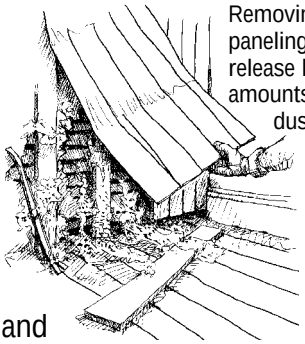
Some jobs create large amounts of dust. To be safe, workers doing this type of work should:

1. Wear half-mask respirators rated by NIOSH as N100 (or HEPA) at a minimum and be trained to wear and maintain them, or conduct air monitoring to show that they are not needed. (See Section 5D: Respiratory Protection, p. 69.)
2. Completely isolate the work space from occupied spaces and use containment to protect other workers. (See next page.)
3. Receive lead worker or supervisor training from an accredited trainer. In most states, accredited courses are available. To locate a course in your state, contact the Leadlisting at 1-888-Leadlist (1-888-532-3547) or www.leadlisting.org.

Remember: All house dust is unhealthy to breathe. It may contain lead, mold, asbestos, gypsum, roach waste, dust mites, coal dust, fiberglass, etc.

Examples of High Dust Jobs

The following types of work are likely to create high levels of dust:



Removing old paneling can release large amounts of dust.

Demolition. Demolition includes tearing off siding and/or demolishing old plaster walls or ceilings.

Opening Up Wall Cavities. These jobs include:

- Removing old paneling and baseboards
- Removing door casings and frames or window casings or jambs

"It's not just what's on the wall, it's the dust behind it."

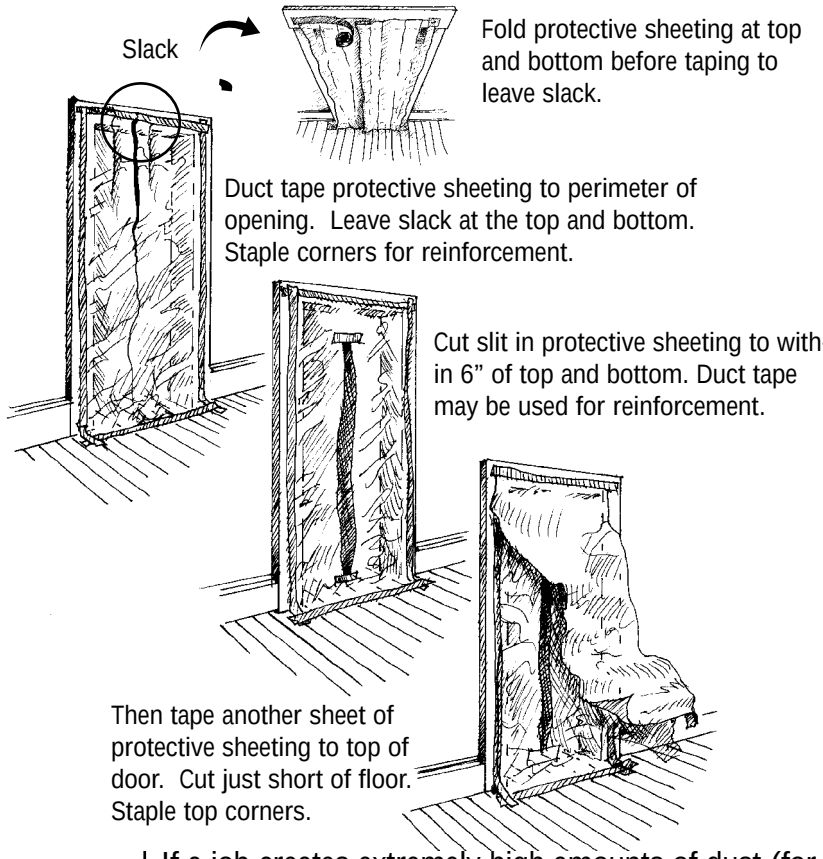
Removing Old Drop Ceilings. Lots of dust can accumulate above ceiling panels.

Improperly Removing Wall-To-Wall Carpet. A carpet that's been on the floor for many years has gathered large amounts of household dust, which may include lead dust. Improperly removing it can release a large amount of dust.

Paint Scraping. Scraping large painted areas, such as the side of a house or an entire room, even when done correctly, can create a large amount of dust.

Containing Dust

Use this system to keep dust from spreading to another room.



If a job creates <u>extremely</u> high amounts of dust (for example, demolition) or large amounts of dust in the air for more than short periods, the protective flap system shown above may not be sufficient to prevent dust from spreading beyond the work area.

For these types of jobs, a more protective system called "isolation" is needed so that dust does not spread beyond the work area. Isolation means that the work area is sealed with no direct access to occupied areas of the home. Workers need to use an entrance that is separate from occupants until cleanup is completed.

C L E A N I N G U P

It is very important to use proper cleanup procedures at the end of the job. Dust and paint chips left behind at the end of the job may contain lead and may endanger children. Have dust wipe samples collected at the end of the job to be sure that it is safe for children to return.

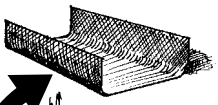
Pick Up Work Area

- Pick up large chips with damp paper towel.

AND/OR

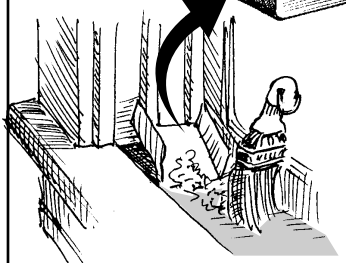
- Mist then push dust into dust pan.

Make dust pan from flashing and clean with a whisk broom.

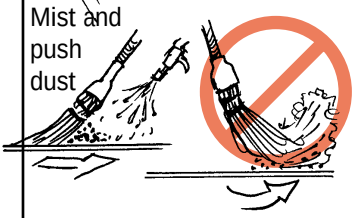


Pick Up Protective Sheeting

- Clean off protective sheeting. Fold dirty side inward (dirty side to dirty side). Dispose of protective sheeting at the end of each job. Protective sheeting may be used again within the same work area if it has not already been folded.



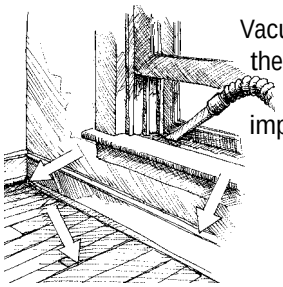
Mist and push dust



Vacuum

- HEPA vacuum all horizontal surfaces—slowly.
- Vacuum all ledges, sills, stools, molding tops, dusty surfaces, etc.
- Vacuum floor under work area. Use corner tool in corners, cracks of trim, and between floor boards.
- Vacuum floor with floor brush and carpet with a carpet tool.

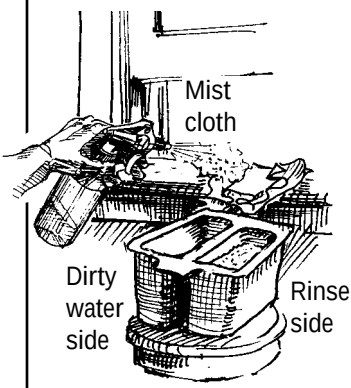
Vacuuming the cracks is very important.



Important: Vacuum carpet very slowly.

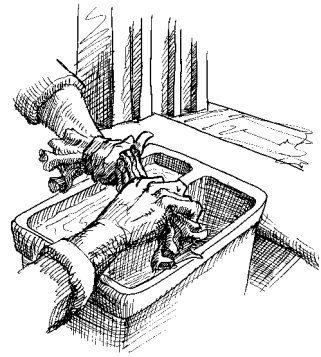
Mist and Scrub

- Wet rag with detergent then wring out.
- Mist surface or rag as you clean.
- Lead needs scrubbing, not just wiping.



Rinse Rag

- Squeeze rag into empty side of split bucket. Rinse out rag. Squeeze into empty side. Repeat as needed.
- Change rinse water often.
  - — Use paper towels first if surfaces are very dirty.
  - — Replace rag when it looks dirty.
- Clean until dust and debris are removed.



Cleaning Floors

Mist and Scrub

- At start of cleaning, soak mop in detergent water then mist small area with detergent before mopping.
- Scrub with mop.

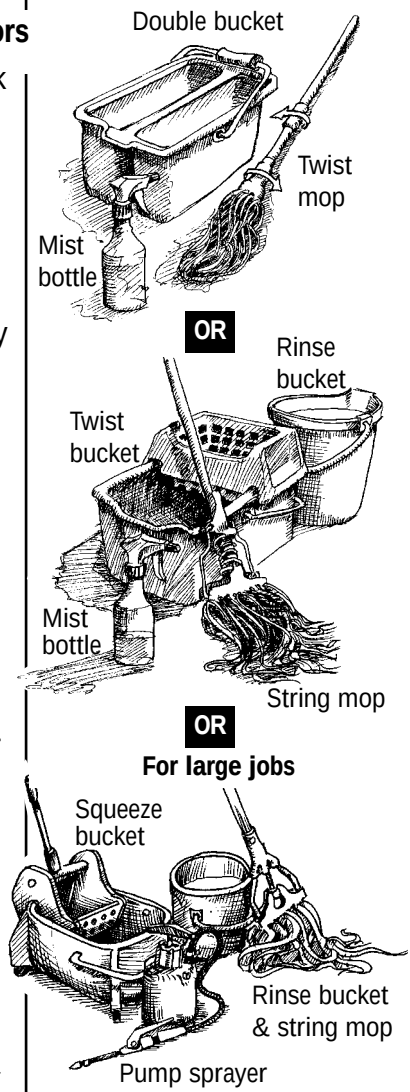
Squeeze Out and Wash

- Squeeze mop into empty bucket then rinse in rinse water. Rinse often. Squeeze out and rinse again. Mop small areas at a time.

Rinse

- Repeat above process using clean water rather than detergent. When cleaning up a work site, use a new mop head for rinse stage.

Recommendation: Make a final pass with a HEPA vacuum.



Dispose of Waste

- See following section.

Take Dust Wipe Sample

- See Section 5D: Testing Dust for Lead, p. 71.

DISPOSAL OF WASTE

After cleanup of the work area, take care to safely handle and remove dust and debris from the job. Supervisors should check with the EPA and their state's agency responsible for waste to find out about specific Federal, state, and local regulations regarding disposal of waste that may contain lead-based paint.

Key Principle:

Confine dust and waste to the work area that will be cleaned.

Disposal Practices

Specific guidelines are:

- Avoid carrying construction waste through an occupied space. If you must carry it through an occupied space, first place it in a heavy duty plastic bag or wrap it in protective sheeting and seal with tape.
- When a dumpster is used, keep the dumpster covered. If a chute is used, cover the chute (or use a barrel chute) and cover the dumpster.
- Store all waste in a secure container or dumpster until disposal. Do not transport waste in an open truck, unless it is bagged and sealed.

Water

Water used for clean up should be dumped into a toilet. Never dump this water in a sink, tub, on the ground, or down a storm drain.

Water used to remove paint through pressure washing must be collected in drums and may need to be tested to determine if it is hazardous. Check with your state agency responsible for waste.

Check Quality of Work & Cleanup

Check work quality **during the job** and at the **end of the job.**

- **Was the cause of the problem corrected?**
- **Were proper work practices used?**
- **Was cleanup done thoroughly?**

How to Check:

Checking your work involves two important steps.

1. Visual Checks

Use the checklist inside the back cover of this guide when performing visual checks.

- **During the Job.** Be sure that:
  - — the cause of the problem is being corrected;
  - — the work area is safely set up;
  - — the practices in this guide are being used; and
  - — dust and debris are not spreading beyond the work area.
- **End of the Job.** Be sure that the repairs were done properly and that no dust or paint chips remain.

2. Take a Dust Wipe Sample

When interior work disturbs painted surfaces or produces dust, have dust wipe samples taken at the end of the job to check for harmful levels of lead-contaminated dust.

To be accurate, these tests must be done according to specific procedures. See Section 5D, p. 71, for more information about these tests, and who should perform them.

How to Check Cont'd

Dust wipe testing is recommended at the end of any job that disturbs paint or produces dust. It is **strongly recommended** when:

- Work that disturbs paint is done in homes built before 1978.
- A young child or pregnant woman lives in the home.
- Performing unit turnover or regular maintenance in rental properties.

Why Is It Important to Check Work?

Checking that work was done properly is important because:

- Failing to correct conditions causing damage or deterioration results in repairs that do not last.
- Work that fails to follow the recommendations in this guide may spread dust and paint chips beyond the work area and may endanger children in the home.
- Dust and paint chips left behind due to poor cleaning may contain lead and may also endanger children in the home.
- For contractors, checking your work improves the quality of a job and is likely to reduce the risk of a lawsuit in the event a child in the home is later found to have high levels of lead in his/her blood.
- Leaving a clean job site is greatly appreciated by customers.

Regularly Check Repairs for Deterioration, Paint Chips, and Dust

Property owners should regularly monitor painted surfaces where maintenance or improvements were performed.

Check to see if:

- New evidence of deterioration or paint failure is present.
- The cause of the problem was corrected.
- Lead dust hazards are present. *Important: This can only be done by dust wipe sampling.*

Maintain Surfaces and Thoroughly Clean

Then:

- Perform repairs, as needed, to maintain surfaces in a smooth and cleanable condition using the methods recommended in this guide; and
- Clean the area thoroughly using the practices described earlier in this section.

Methods of Monitoring

Follow the same methods used to check your work:

- **Visual Check.** Look for deterioration, paint failure, dust and paint chips. Use the checklist inside the back cover of this guide.
- **Test for Lead Dust.** Have dust wipe samples taken to check for dust that may be contaminated with lead. A test is needed to determine when dust contains harmful amounts of lead.

To be accurate, these tests must be done according to specific procedures. See Section 5D, p. 71, for more information about these tests, and who should perform them.

When to Monitor?

- **Annually.** Perform a visual check of past repairs and improvements involving painted surfaces.
- **During Unit Turnover or Routine Maintenance.** Perform a visual check of past repairs and improvements involving painted surfaces.
- **Every Two Years.** Get a dust wipe test done at least every two years. This type of test is **strongly recommended** when a young child or pregnant woman lives in the home.

Why Is It Important to Monitor & Maintain Work?

Monitoring and maintenance helps:

- Plan and implement maintenance tasks
- Protect occupants and neighbors, particularly children, from lead exposure
- Give owners, contractors, and residents a record of the condition of the unit

A. GLOSSARY

Aluminum flashing - thin aluminum sheeting, also known as coil stock.

Aviation snips - metal cutters.

Chamfer - a small bevel on an edge.

Enclosure - a rigid, durable construction material that is mechanically fastened to the structure to cover painted surfaces.

Fit testing - a method to check if a respirator fits properly over the face.

Gain - notch chiseled in a door for a hinge leaf.

HEPA filter - High-Efficiency Particulate Air filter. A filter that can remove particles of 0.3 micrometers or larger from the air at 99.97 percent or greater efficiency.

HEPA vacuum - a vacuum with a HEPA filter.

HUD Guidelines - HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Interim controls - a set of measures to reduce exposure to lead hazards. Interim control measures include special cleaning, repairs, paint stabilization, enclosure, and containment. For a full discussion, see HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Lauan plywood - 1/4 inch plywood made of lauan with a smooth face.

N100 - a NIOSH filter class that describes a respirator's ability to filter airborne particles. A respirator filter rated as N100 removes particles of 0.3 microns or larger from the air at 99.97 percent or greater efficiency.

NIOSH - National Institute for Occupational Safety and Health, an agency within the Centers for Disease Control and Prevention that tests and certifies safety equipment including respirators.

OSHA - Occupational Safety and Health Administration, an agency of the U.S. Department of Labor that oversees worker safety.

Paint stabilization - a process of wet scraping, priming, and finish coating of a deteriorated painted surface to prevent further deterioration.

Permissible Exposure Limit (PEL) - a dust exposure threshold set by OSHA. Work that creates lead dust levels in the air greater than the PEL must meet OSHA lead safety requirements for workers. OSHA has set the PEL for airborne lead dust at 50 micrograms per cubic meter *($\mu g/m^3$)* as a time weighted average. See Section 5D, p. 69, for technical information about OSHA requirements and Section 5B, p. 61, for information about OSHA regulations.

Pilot hole - a small hole drilled to guide the drilling of a larger hole.

Protective sheeting - made of plastic, poly or other material. Protective sheeting must be puncture and tear resistant, impermeable to liquids, durable, flexible, and lightweight.

R-value - a measure of heat containment; used for rating insulation effectiveness.

Shim - small piece of wood or metal used to fill space between two fastened components.

Shroud - a protective covering that contains dust and chips.

Substrate - a solid surface such as plaster, drywall, wood, etc.

Tack pad - a sticky pad that helps remove dust from shoes.

Window trough - the area of the sill between a window stool or interior sill and the frame of the storm window where the bottom sash rests when closed (also called a window well or exterior sill).

B. FOR MORE INFORMATION

This section lists useful documents, web sites, and other lead-based paint information resources. Additional sources also exist. Use the reference letter on the right to locate the contact for each information resource. Contacts are listed by letter on pages 62-64. Publications marked with an * are for sale; others are available for free.

Where can I get more information on…

Work practices and lead-safety?

Publications	Reference Letter
• *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (July 1995).** Technical guidance on methods for identifying and controlling lead-based paint and lead-based paint hazards. The *Guidelines* can also be downloaded for free from the HUD Office of Lead Hazard Control web site. (About 750 pages)	**B, C**
• *Residential Lead Desktop Reference (2nd Edition, June 1998)*.* A CD-ROM containing a large variety of lead-based paint information resources.	**C**
• *Maintaining a Lead Safe Home (1997)*.* A do-it-yourself manual for homeowners and property managers. (89 pages)	**B**
• *Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings (May 1995).** Technical guidance on safe work practices. (200 pages)	**G**
• *Guide Specifications for Reducing Lead-Based Paint Hazards (May 1995).** Technical guidance on purchasing lead-hazard control reduction services and developing lead-hazard reduction work specifications. (About 500 pages)	**G**
• *Lead Safety for Nonprofit Property Owners, Developers, and Managers (July 1998).* Practical guide to developing policies and activities that incorporate lead safety in property management. (About 30 pages)	**F**

Publications	Reference Letter
• *Guide to Working Safely with Residential Lead Paint (1999).* Pamphlet with key lead safety precautions to follow during repainting and home improvement.	**F**
• *Reducing Lead Hazards When Remodeling Your Home (September 1997).* Pamphlet providing basic information about lead-based paint risks and precautions when remodeling pre-1978 homes.	**B, I, K**
Web Sites	
• HUD, Office of Lead Hazard Control. Provides information on HUD regulations, technical and educational documents, and links to other lead resources.	**B**
• EPA, Office of Pollution Prevention and Toxics. Provides information on EPA regulations, technical and educational documents, and links to other lead resources.	**K**

Worker protection methods?

Publications	
• *Protecting Workers and Their Communities from Lead Hazards: A Guide for Protective Work Practices and Effective Worker Training (1993).** Guidance on worker protection methods, training workers, and complying with OSHA regulations. (About 500 pages)	**L**
• *Lead Exposure in the Construction Industry (1993).* Fact sheets that describe worker protection measures needed to meet OSHA requirements for lead including respiratory protection and protective clothing. (Series of 6 fact sheets)	**J**
Web Site	
• OSHA. Occupational Safety and Health Administration. Provides information on OSHA regulations, technical and educational documents, and links to other lead resources.	**J**

Preventing children's exposure to lead hazards?

	Reference Letter
Publications	
• *Protect Your Family From Lead In Your Home (May 1995).* Pamphlet that provides basic information about addressing and preventing lead-based paint hazards in the home.	**B, I, K**
• *Lead Poisoning Prevention: Directory of State Contacts (1997-98).** Booklet that contains profiles of state programs to reduce lead hazards. (150 pages)	**E**
• *Directory of State and Local Lead Poisoning Prevention Advocacy Organizations (1998).** List of state and local non-profit organizations that are working to prevent lead poisoning. (About 300 pages)	**A**
Web Site	
• Alliance to End Childhood Lead Poisoning. Information on lead poisoning prevention, lead issues, and program design. Site has publications that can be copied from the web.	**A**

Public education and outreach materials?

Web Site and Hotline	
• National Lead Information Center. Information about lead hazards and poisoning prevention.	**I**

Locating certified abatement contractors and clearance inspectors?

Web Site and Hotline	
• Leadlisting. List of qualified lead professionals including inspectors, risk assessors, abatement contractors, and analysis laboratories.	**D**

Disclosure requirements?

Publications	Reference Letter
• *Protect Your Family From Lead in Your Home (May 1995).* Pamphlet that provides basic information about addressing and preventing lead-based paint hazards in the home.	B, I, K
• *Disclosure of Lead-Based Paint Hazards in Housing (March 1996).* Fact sheet that provides information on how to meet Federal disclosure requirements.	K
• *Questions and Answers on the HUD/EPA Disclosure Rule.* Answers to commonly asked questions about Federal disclosure requirements. (5 pages)	K
• *Interpretive Guidance for the Real Estate Community on the Requirements for Disclosure of Information Concerning Lead-Based Paint in Housing, Parts I and II (1996).* In-depth guidance on the disclosure requirements for real-estate professionals. (27 pages)	K
• *Resource Handbook on Lead Hazard Disclosure for Homes and Apartments (1996).** Comprehensive reference book on disclosure procedures including advice for renters and owners, a glossary of key terms, and copies of disclosure documents. (Approximately 300 pages)	A

Respirators?

Web Sites	
• National Institute of Occupational Safety and Health. Provides information on the proper use of respiratory protection and various types of NIOSH-approved respirators that are available.	H
• Occupational Safety and Health Administration. Provides information on OSHA regulations regarding the use of respiratory protection.	J

Where can I find…	Reference Letter
HUD's lead regulations?	
• 24 Code of Federal Regulations (CFR) 35 (Lead Rule). Contains lead hazard evaluation and reduction requirements for properties that receive HUD funding.	**B**
OSHA's lead regulations?	
• 29 CFR 1926.62 (Lead in Construction) and 29 CFR 1910.1025 (Lead in General Industry). These regulations cover Federal worker protection requirements for workers in industry, construction, remodeling, and renovation.	**J**
EPA's lead regulations?	
• 40 CFR 745 (Lead-Based Paint Poisoning Prevention in Certain Residential Structures). Contains the Federal regulations for the disposal of lead waste and contractor notification requirements.	**K**
• 40 CFR 745.80 (Residential Property Renovation). Federal rule requiring contractors to provide notification before the start of any work that disturbs a painted surface in pre-1978 homes.	**K**
Disclosure regulations?	
• 24 CFR 35 (HUD) and 40 CFR 745 (EPA). Regulations for disclosure of known lead-based paint and lead-based paint hazards by home sellers and landlords. This rule was published jointly by HUD and EPA.	**B, K**

State lead laws? Publication	Reference Letter
• *Summary of Lead Poisoning Prevention Statutes (February 1999).* A state-by-state listing of local lead-related regulations, such as waste disposal requirements. Available by fax. (24 pages)	E

Contacts

Reference Letter	Organization	Types of Resources
A	Alliance to End Childhood Lead Poisoning 227 Massachusetts Avenue, NE, Suite 200 Washington, DC 20002 202-543-1147 http://www.aeclp.org	Publications
B	Office of Healthy Homes and Lead Hazard Control; U.S. Dept. of Housing and Urban Development (HUD) 451 Seventh Street, SW, Room P-3206 Washington, DC 20410 202-755-1785 http://www.hud.gov/offices/lead	Publications Program development
C	HUD USER P.O. Box 6091 Rockville, MD 20849 1-800-245-2691 http://www.huduser.org	Publications
D	Leadlisting 1-888-Leadlist (1-888-532-3547) http://www.leadlisting.org	Technical consultation
E	National Conference of State Legislatures 1560 Broadway, Suite 700 Denver, CO 80202 303-830-2200 http://www.ncsl.org	Publications

Reference Letter	Organization	Types of Resources
F	National Center for Lead Safe Housing 10227 Wincopin Circle, Suite 205 Columbia, MD 21044 410-992-0712 http://www.leadsafehousing.org	Publications Technical consultation
G	National Institute of Building Sciences (NIBS) Publications Department 1201 L Street, NW, Suite 400 Washington, DC 20005-4014 202-289-7800 http://www.nibs.org	Publications Training
H	National Institute of Occupational Safety and Health (NIOSH) Hubert H. Humphrey Building, Room 7154 200 Independence Avenue, SW Washington, DC 20201 800-35-NIOSH (800-356-4674) http://www.cdc.gov/niosh/home-page.html	Publications
I	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	Publications Training

Reference Letter	Organization	Types of Resources
J	Occupational Safety and Health Administration (OSHA) U.S. Department of Labor, OSHA Publications Office 200 Constitution Avenue, NW, Room N3101 Washington, DC 20210 *OSHA Lead web page:* http://www.osha-slc.gov/SLTC/lead/index.html *OSHA Respirator web page:* http://www.osha-slc.gov/SLTC/respiratory_advisor/mainpage.html	Technical consultation Enforcement
K	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	Publications Program development
L	Society for Occupational & Environmental Health 6728 Old McLean Village Drive McLean, VA 22101 703-556-9222 http://www.soeh.org	Publications

C. GETTING THE WORD OUT

How Owners and Occupants Can Work Together to Improve Lead Safety In Homes

Gaining tenant cooperation can help rental property owners and managers respond promptly to conditions that could pose a health threat to occupants.

Owner Responsibilities

1. Check the building to be sure that:
   - ❑ The building shell is sound.
   - ❑ Water isn't coming in from the outside and causing damage.
   - ❑ Sources of moisture inside are not causing damage.
   - ❑ Painted surfaces are intact.
   - ❑ Doors and windows work properly.
   - ❑ All surfaces are clean and cleanable.

2. Maintain the building.
   - ❑ Train maintenance staff to minimize dust, clean up effectively, and protect themselves.
   - ❑ Conduct regular building checks for potential problems, such as:
     - Flaking or peeling paint
     - Water damage to paint, plaster, or wood
     - Plumbing or roof leaks
     - Painted doors and windows that do not operate smoothly

3. Educate occupants and gain their cooperation.
   - ❑ Fulfill Federal notice and disclosure requirements.
   - ❑ Have occupants inform you of damaged paint and other maintenance problems.

When Maintenance or Renovation Work is Done

Give occupants the Lead Safety pamphlet required by Federal regulations (see page 66).

Tell occupants:

- ✔ Why repairs are necessary.
- ✔ The work schedule.
- ✔ How they and their possessions will be protected.
- ✔ Why they may need to leave during the work.

- ❑ Explain to occupants why steps, such as regular cleaning, prevent lead-based paint hazards. (See below.)
- ❑ Consider providing cleaning supplies and tools (see page 75) to occupants to encourage cleaning.
- ❑ Remind tenants that it is a good practice to provide notice of problems in writing.
- ❑ Make sure occupants understand the property's maintenance reporting procedures and indicate that these problems require priority attention.

Precautions Tenants Can Take to Protect Their Family

Occupants should pay special attention to page 7 of the pamphlet *Protect Your Family From Lead In Your Home.* It describes steps that occupants can take to reduce the chance that they will be exposed to lead hazards. Suggestions from this pamphlet include:

Federal Notice and Disclosure Requirements
(24 CFR Part 35 or 40 CFR Part 745)

- ✔ Landlords and home sellers must notify future occupants about lead-based paint hazards by giving them the pamphlet *Protect Your Family From Lead in Your Home*.
- ✔ Landlords and home sellers must disclose information about known lead-based paint and/or lead-based paint hazards before dwelling leases or home sales contracts take effect. Leases and sales contracts must also include a form about lead-based paint that meets Federal requirements. Contact HUD or EPA for more information about these requirements (see Section 5B, p. 57).

- ❑ Clean floors, window frames, interior window sills, and other flat surfaces each week using warm water and an all-purpose cleaner.
- ❑ Clean up any paint chips immediately.
- ❑ Keep child play areas clean.
- ❑ Wash children's hands often.
- ❑ Keep children from chewing interior window sills and other painted surfaces.

Notice Prior to Renovation

Federal law requires contractors and owners of rental properties to inform occupants about the risks of lead-based paint before non-emergency repair, maintenance, and home renovation work begins. This law applies for all work on surfaces greater than 2 square feet per component. Contractors and property owners must distribute copies of the pamphlet *Protect Your Family From Lead In Your Home* before any work starts. See EPA's regulation at 40 CFR 745.80. Also see Section 5B, p. 57, for sources that can provide copies of this pamphlet.

Contractors and owners must make sure that occupants have received the pamphlet.

- For owner-occupied homes, the contractor must have the homeowner sign an acknowledgement form after receiving the pamphlet. Or, the contractor can send the pamphlet by certified mail.
- For tenants, the contractor or property owner must have an adult occupant sign an acknowledgement form after receiving the pamphlet. Or, the contractor or owner can send the pamphlet by certified mail. If the contractor cannot get a signed acknowledgement, the contractor must sign a statement documenting this.
- For work in common areas, such as the lobby, of an apartment building, the contractor must give the pamphlet to the owner and to the occupants of all affected areas and inform them of the nature, location, timing, and length of the job.

Why Lead Safety Makes Sense for Property Owners and Contractors

Property owners and contractors that use safe work practices benefit in several ways.

Advantages for Owners of Residential Rental Properties

Owners who maintain their rental properties using work practices that increase lead safety can use this information to attract tenants who are concerned for their child's health. Some local agencies may even maintain a listing of housing units that meet certain lead-safety standards. When giving prospective tenants the lead-based paint pamphlet and the required disclosure information, they can tell the tenant that the property has a program to minimize the risk of hazards from lead-based paint. A safety program would include:

- Educating and training maintenance workers.
- Examining property at turnover and then every year for deteriorating paint.
- Correcting conditions that may cause paint to flake and peel (excessive moisture, binding doors, etc.).
- Doing work safely and cleaning up well.
- Making sure surfaces are cleanable and doing a professional cleaning at turnover.
- Performing dust wipe tests before occupancy, and after every maintenance job that disturbs old paint. It is also recommended to perform a dust wipe sample test at least every two years. Keep the results on file.
- Encouraging tenants to inform property owners if there is a problem.

Advantages for Contractors

Doing work safely can enhance a contractor's reputation, maintain the safety of workers, and protect the health of customers and their children.

A program for lead safety can also help contractors when bidding new jobs. For example, contractors performing repairs and improvements in homes built before 1978 must give potential customers a pamphlet about the risk of lead-based paint during renovation. Contractors that follow practices for lead safety can demonstrate to customers that they understand the risks and show that their workers take specific precautions to protect against lead-based paint hazards. Lead-safety can help "*give you a leg up*" on the competition.

Safe work practices also offer benefits that are important to customers:

- Dust and debris are confined to the work area.
- A "clean" work area at the end of the job.
- Some work offers additional benefits. *(For example, repairs to windows can improve their operation, prevent damage from moisture, and lower energy and maintenance costs.)*
- Lead safety also helps protect you as a contractor. For example, having an independent, certified professional take dust wipe samples of the work area promptly after cleanup provides strong documentation that no lead hazards were present in the work area at the end of the job.

Respiratory Protection

Respiratory protection helps prevent workers from breathing harmful amounts of lead and other substances, touching their mouths with dusty hands, or swallowing paint chips.

When work creates high levels of dust in the air, properly trained and certified lead-based paint professionals should do these high dust jobs. If you work for someone, and plan on doing this type of work, your employer must meet the requirements of the OSHA Lead in Construction Standard (29 CFR 1926.62). These requirements include respiratory protection when work creates lead dust in air that exceeds the "permissible exposure limit" (PEL) — see Air Monitoring and Results sections below. See Section 5B, p. 57, for sources of information about OSHA requirements.

Respirators may be required for activities that generate high levels of dust such as:

- Demolishing painted surfaces
- Opening up wall and ceiling cavities
- Using power tools on painted surfaces
- Dry scraping large painted areas

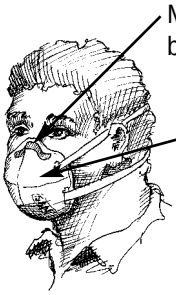
For this type of work, OSHA requirements include the following:

- Training workers on how to properly use and maintain respirators.
- Making sure proper respirators are always available and that workers have been fit tested. Where respirator use is required, workers must be part of a written respiratory protection program that meets OSHA standards (29 CFR 1910.134).


Dust mask not NIOSH approved

Many types of respirators can be used:

— Disposable respirators can be used if they are rated by NIOSH as N100 (or HEPA) — this information can be found on the respirator's package or the respirator itself.


Metal nose bridge

HEPA filter material

Worker wearing NIOSH-approved disposable respirator

— Non-disposable respirators, also rated by NIOSH as N100, often have replaceable cartridges and require regular maintenance.

Worker wearing a non-disposable respirator

- Having a trained person do air monitoring that measures the amount of dust in the air to determine if respirators are required by OSHA, and the appropriate level of protection. Workers must wear proper respirators while air monitoring is being done.

Air Monitoring

Air monitoring is done to ensure that workers are not being exposed to dangerous levels of lead dust in the air, and to comply with OSHA requirements. It must be done by a person with special training. A worker being monitored wears a small plastic canister clipped to his/her clothing near the face. A pump in a device clipped to the belt draws air and dust into the canister. The canister is then sent to a lab to measure how much lead dust was in the air.

What Do the Results Mean?

The results are measured in micrograms per cubic meter ($\mu g/m^3$). If the amount of lead dust in the air exceeds the permissible exposure limit (PEL) of 50 $\mu g/m^3$, workers must wear at least a half-face respirator with an N100 (or HEPA) rating and certain OSHA requirements must be followed.

Results may show that respirators are not necessary or that a greater level of protection is needed. If the results show lead dust levels in the air above 500 $\mu g/m^3$, a more protective respirator is required.

Other Protection

In addition to respiratory protection for activities that generate high levels of dust, compliance with OSHA's Lead in Construction Standard may involve blood tests for workers, medical monitoring, hand washing facilities, other personal protective equipment, shower and changing areas, and additional training.

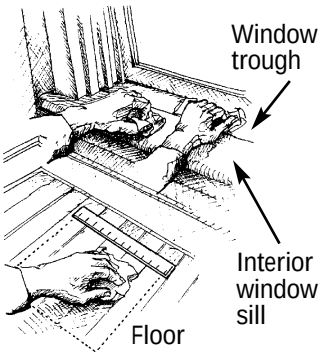
Testing Dust for Lead

By having dust wipe samples taken, job supervisors and property owners can locate dust lead hazards and test the effectiveness of cleaning at the end of a job.

Where Are Dust Samples Taken?

Samples are taken in the area of the dwelling where work has been completed. The following surfaces within the work area should be sampled:

- Floor
- Interior window sills *(also referred to as window stools)*
- Window troughs



When Should Dust Samples Be Taken?

- At the end of a job
- If there is a child or pregnant woman living in the home
- Before a family moves into a home

What Do the Results Mean?

The results of the laboratory analysis will show the amount of lead found in the dust from the area sampled. The results are measured in micrograms per square foot *(µg/ft²)*.

To determine if a lead-based paint hazard exists, based on EPA's requirements, compare the results to the following standards:

- 40 µg/ft² on the floor
- 250 µg/ft² on the interior window sill (stool)

If the results for a sample are higher than these standards, a dust lead hazard is present. For clearance puposes only, a value of 400 µg/ft² should be used for window troughs.

Who Can Take Dust Wipe Samples?

Following painting, home maintenance, and renovation work:

- In homes receiving Federal assistance, dust wipe samples, if required by regulations, must be taken by appropriately trained personnel who were not involved in the work. This "clearance" testing may be done by a lead-based paint inspector, risk assessor, or sampling technician certified by a State or the EPA. Clearance testing may also be done by a person trained as a sampling technician, as long as a certified lead-based paint inspector or risk assessor approves the technician's work and signs the clearance examination report.
- For all other homes, it is recommended that dust wipe samples be taken by a trained sampling technician, or, preferably, a certified lead-based paint inspector, risk assessor, or sampling technician. Some states require that dust wipe samples be taken by a certified person.

What Actions Do I Take Based On the Results?

If the results show dust lead levels higher than the standards listed above, the area where the work was performed should be cleaned to remove the dust lead hazard.

If the dust wipe samples were taken as part of ongoing monitoring by maintenance staff or the property owner, the surfaces where work was performed should be examined to see if the work has failed or new conditions that generate dust have developed. In either case, these conditions should be corrected using lead-safety principles and work practices.

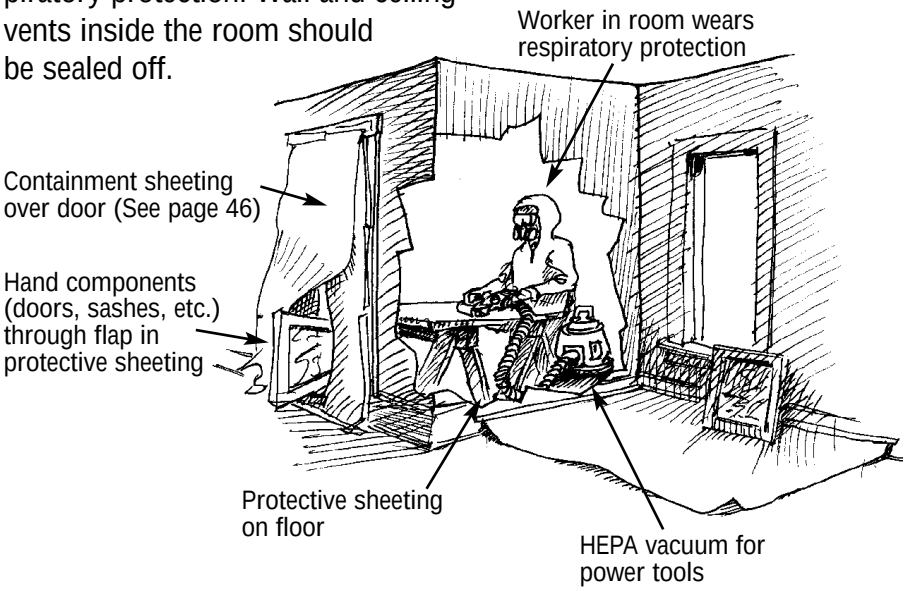
If the work required to correct the likely source of the dust lead hazard is beyond the scope of this guide, the property owner should seek the help of a lead-based paint professional trained to safely correct lead-based paint hazards.

Setting Up a Dust Room

A dust room can be useful for dusty work on building components that can be moved. For example, scraping or planing doors or window sashes can be done in a dust room. A dust room is particularly useful when working in occupied spaces.

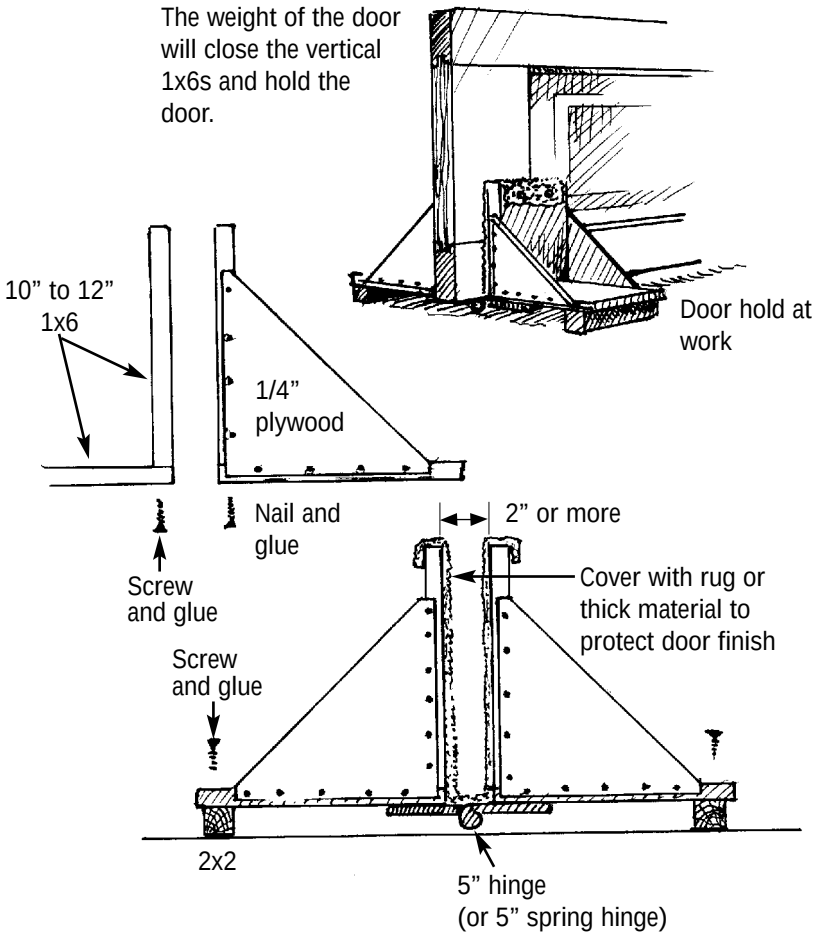
The dust room can be any room that can be closed off. The door can be covered with a flap system (see page 46) and the floor can be covered with protective sheeting taped to the baseboard.

Workers in this room should wear disposable clothing and wear respiratory protection. Wall and ceiling vents inside the room should be sealed off.



Building a Door Hold

A door hold makes working on doors easier and safer.



E. TOOL AND SUPPLY LIST

Additional Tools Needed for Lead-Safety Work
(Not every tool is needed for every job.)

Paint scrapers - A variety of scrapers are useful; carbon blades last longest. A mill file works well to keep scraper blades sharp.

Sanding sponges and wet/dry sandpaper - Where areas need to be smoothed or feathered, these abrasive tools, when used wet, keep dust to a minimum.

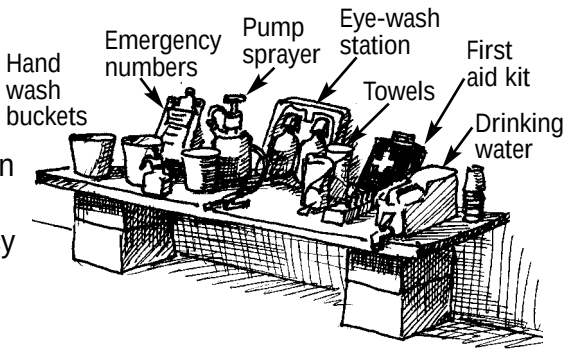
Mist bottles - Misting a surface being scraped or cut keeps down dust. Squeeze bottles work best in small areas. For larger jobs, a pump pressure sprayer in a knapsack works best.

Plane - A jack, smooth, or jointer (not block) plane. Hand planes are good for removing paint from edges such as the edge of a window, stool, or door. They create very little dust.

Cleanup station - A kitchen counter with a working sink is a good place for a cleanup station. If not available, set up a board with 3 buckets and a pump sprayer.

The station should have:

- Paper towels and soap
- Pads for cleaning respirators
- A 2-bottle eye-wash station
- A first aid kit
- Clipboard with emergency numbers
- Drinking water and cups



Personal Protective Clothing and Equipment

- A disposable respirator rated by NIOSH as N100 (or HEPA)
- A half-face, air cartridge respirator rated by NIOSH as N100 (or HEPA)
- Protective, lightweight, disposable suits with elastic sleeves and ankles
- Shoe covers (slip resistant is recommended)
- Safety glasses (vented goggles if working in high dust conditions or when using liquids or strippers)
- Ear protection if using power tools

Cleaning Equipment

- Bottle mister and pump sprayer for detergent
- Mops and buckets
- Tack cloths for wiping furnishings that may be damaged by water
- Heavy-duty paper towels and/or rags

Vacuums - At the end of a job, use a HEPA vacuum because it will capture even the finest dust. For regular household cleaning, use a HEPA vacuum if available. If one is not available, use a fine filter in your vacuum known as micron or allergen bags.

Painting Supplies

- Use commercial grade cleaners; there are also lead-specific cleaners. (Note: Trisodium phosphate [TSP] is banned in some states.)
- Degreasers may be necessary on some walls.
- Use deglosser or wet sanding supplies.
- Where wood is exposed, use a sealer and then apply a best grade primer or primer-sealer.

Other Tools

- Coil stock for covering window troughs. Coil stock is available with white and brown sides to match window trim color (see page 36).
- Window opening tool for windows that are painted shut (see page 29).
- Brace with screwdriver tips for removing and replacing hinge screws.
- Power planer with exhaust port that can be attached to HEPA vacuum. A power planer can be used for stripping window sashes and doors in a contained work area with respiratory protection.

F. NOTES AND SPECIAL INSTRUCTIONS

G. WORK CHECKLIST

Before Work Begins

- ❑ Are the possible risks to occupants identified?
- ❑ Are the occupants informed of the possible risks and their responsibilities?
- ❑ Are the causes of the problems located?
- ❑ Is the work area set up?
- ❑ Is the work area closed off from occupants?

During Work

- ❑ Are dust and debris being contained in the work area?
- ❑ Are workers wearing necessary protective clothing and equipment?
- ❑ Are workers cleaning up each time they leave the work site?

At the End of the Job

- ❑ Did workers fix the cause of the problem?
- ❑ Did workers remove visible dust and debris?
- ❑ Did workers properly dispose of dust and debris?
- ❑ Did workers wet wash the surfaces?
- ❑ Were dust samples taken to make sure that cleanup worked?

For Long-Term Maintenance

Is there a plan to:

- ❑ Maintain painted surfaces?
- ❑ Keep surfaces clean and cleanable?
- ❑ Prevent water and moisture damage?

Why Follow this Guide?

The Simple Work Practice Changes in this Guide Can Protect Children and Workers

- This Guide contains practical steps for lead safety.
- With small changes in work practices, workers can protect themselves, their families, and their customers, especially children, from lead exposure.

Painting, Home Improvement, and Maintenance Work in Older Homes Can Endanger Children

- Most homes built before 1978 contain lead-based paint.
- Doing work improperly can create a lot of paint chips and dust that may contain lead.
- Lead in paint chips, dust, and soil gets on children's hands and toys which they may put in their mouths.
- Lead can make children very sick and cause permanent brain and nerve damage, learning difficulties, and behavior problems.

Poor Maintenance Also Endangers Children

- Paint flaking and peeling is often caused by moisture.
- Rubbing or impact on doors, windows, and trim can cause paint failure.

Who Should Use This Guide?

- Building maintenance workers and supervisors
- Painters
- Repair, renovation, and remodeling contractors
- Property managers and owners
- Homeowners

Ordering Additional Copies

Single copies of *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work* on paper or on CD-ROM can be ordered from the National Lead Information Center at 1-800-424-5323 or downloaded from the HUD Office of Healthy Homes and Lead Hazard Control web site at www.hud.gov/offices/lead.

For information about obtaining multiple copies, contact the National Lead Information Center.

March 2001
HUD-1779-LHC

Appendix 9

Appendix 9: Skills Checklists for Hands-on Exercises

Module 2 Set-Up Exercise: Skills Checklist The participant should practice the following skills as appropriate to the work setting and specifications. Use the second column (✓) to check off skills performed and record any comments as necessary.	
Skill	✓
1. Determines a level of worksite preparation that is most appropriate for the project.	
2. Selects the appropriate supplies and materials needed to construct any required barriers or containment.	
3. Posts warning signs in proper locations.	
4. Places warning tape around perimeter, if needed	
5. Cuts proper size plastic sheeting for purpose intended. • Constructs required door airlocks. • Covers floor or ground appropriately for project. • Covers windows, if necessary	
6. Joins plastic properly.	
7. Turns off ventilation system and seals all vents to room with plastic sheeting, if necessary.	
8. Moves furniture and/or covers with plastic any furniture that can't be moved, if required.	

Module 3 Lead Safe Work Practice: Skills Checklist The participant should practice the following skills as appropriate to the work setting and specifications. For more information on how to perform specific tasks in a lead safe manner, consult the Lead Safety Field Guide in Appendix 8. Use the second column (✓) to check off skills performed and record any comments as necessary.	
Skill	✓
1. Use appropriate personal protective equipment and clothing for the job.	
2. Avoid dangerous practices. • Open flame burning or torching • Heat guns over 1100 degrees Fahrenheit • Power sanding, grinding, abrasive blasting without HEPA vacuum attachment • Extensive dry scraping and dry sanding	
3. Use safe practices • Wet scraping/wet sanding • Heat guns below 1100 degrees (F) • Chemical strippers (following manufacturer's instructions) • Power tools with HEPA vacuum attachments • Misting surfaces or using shaving cream prior to drilling, cutting or coring • Scoring paint • Pulling and prying (instead of pounding and hammering)	
4. Clean worksite on an ongoing basis. • Remove paint chips and debris from the site regularly. • HEPA vacuum horizontal surfaces • Wrap and dispose of large components as they are removed • Clean up worksite and tools at the end of each day	
5. Take proper precautions when leaving the worksite temporarily • Remove shoe covering, HEPA vacuum or wipe shoes • Use tack pads • Remove coveralls or HEPA vacuum clothes	
6. Package, label, and store waste properly. • Segregate hazardous and non-hazardous waste. • Place all removed plastic sheeting, tape and other contaminated work area materials in heavy duty disposal bags. • Place all used cleaning supplies (rags, mop heads, etc.) in heavy duty disposal bags. • Place all used disposable personal protective equipment in waste bags. • Wrap building components, such as removed windows, in heavy duty poly sheeting and seals all seams with duct tape.	
7. At the end of each day, decontaminate self, supplies and equipment. • Wipe off all tools and equipment. • HEPA vacuum all protective clothing before leaving contained area. • Remove protective clothing properly. • Remove work shoes and place in plastic bag. • Place used cleaning rags and clothing in a waste bag. • Wash at least face and hands, including fingernails.	

Module 4 Clean-Up: Skills Checklist The participant should practice the following skills as appropriate to the work setting and specifications. Use the second column (✓) to check off skills performed and record any comments as necessary.	
Skill	✓
1. Select the equipment needed to perform clean-up.	
2. Demonstrate final pre-clearance procedures in the correct order. • Pick up large debris with wet disposable cloths • Mist sheeting before folding • Fold dirty side inward • Tape shut to seal in dirty side • Places contaminated plastic into heavy duty plastic disposal bags.	
3. Demonstrate the proper order of final clean-up. • HEPA vacuum • Wet Detergent Wash and Rinse • HEPA vacuum (if necessary)	
4. Demonstrate proper use of the HEPA vacuum. • Vacuum all surfaces (ceiling, walls, trim, floors) using proper attachments for each surface type. • Start at the ceiling and works down. • Vacuum at least two feet beyond containment area	
5. Demonstrates proper washing techniques for hard surfaces. • Follow manufacturer's instructions for use of detergent and recommended dilution. • Thoroughly and completely washes all surfaces. • Work from ceiling down. • Rinse the area with clean water from the other side of the bucket. • Change rinse water often. • Dispose of dirty water and rags/sponges appropriately.	
6. Demonstrate how to package, label, and store waste. • Segregate hazardous and non-hazardous waste • Place all removed plastic sheeting, tape and other contaminated work area materials in heavy duty disposal bags. • Place all used cleaning rags, sponges, mop heads, paper towels, in heavy duty disposal bags. • Place all used disposable personal protective equipment in waste bags. • Wrap building components, such as removed windows, in heavy duty poly sheeting and seal all seams with duct tape.	
7. Decontaminate self, supplies and equipment. • Wipe off all tools and equipment. • HEPA vacuum protective clothing before leaving contained area. • Remove protective clothing properly. • Remove work shoes and place in plastic bag. • Place used cleaning rags and clothing in a waste bag. • Wash at least face and hands, including fingernails.	

Appendix 10

Senate Bill No. 460

CHAPTER 931

An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement.

[Approved by Governor September 26, 2002. Filed with Secretary of State September 26, 2002.]

LEGISLATIVE COUNSEL'S DIGEST

SB 460, Ortiz. Lead abatement.

(1) The State Housing Law deems a building or portion thereof to be substandard if certain conditions exist.

This bill would deem a building or portion thereof to be in violation of the State Housing Law if it contains lead hazards, as specified, that are likely to endanger the health of the public or the occupants.

(2) The State Housing Law requires the housing department or, if there is no housing department, the health department, of every city, county, or city and county, or a specified environmental agency to enforce within its jurisdiction all of the State Housing Law, the building standards published in the State Building Standards Code, and other specified rules and regulations. A violation of the State Housing Law, related published building standards, or any other rule or regulation adopted pursuant to the law is a misdemeanor.

This bill instead would require the housing or building department or, if there is no building department, the health department, of every city, county, or city and county, or a specified environmental agency to enforce within its jurisdiction all of the State Housing Law, the building standards published in the State Building Standards Code, and other specified rules and regulations. It would authorize the State Department of Health Services to enforce the provisions relating to lead hazards if specified conditions are met. By creating a new crime and imposing additional duties upon local officials, this bill would impose a state-mandated local program.

(3) The State Housing Law requires the enforcement agency to institute any appropriate action or proceeding to prevent, restrain, correct, or abate the violation of the law, published building standards, specified rules and regulations, or nuisance. It also requires an enforcement agency, when it has determined that a building is a

substandard building, to commence proceedings to abate the violation by repair, rehabilitation, vacation, or demolition of the building.

This bill would additionally require an enforcement agency, when it has determined that a building contains lead hazards, as described above, to commence proceedings to abate the violation by repair, rehabilitation, vacation, or demolition of the building.

(4) Existing law requires the State Department of Health Services to implement and administer a program that meets federal requirements regarding lead-based paint hazards, and requires the adoption of regulations regarding, among other things, the accreditation of providers of health and safety training to employees who engage in or supervise lead-related construction work.

This bill would make it a crime for a person to engage in specified acts relating to lead-related construction courses, and lead-related construction work, abatement, or lead hazard evaluation. It would also enact related inspection provisions.

The bill would also permit the department or a local enforcement agency, whenever it determines that a condition at a location or premises, or the activity of any person at the location or premises, is creating or has created a lead hazard at the location or premises, to order the owner of the location or premises to abate the lead hazard or to order the person whose activity is creating or has created the hazard, to cease and desist. It would make it unlawful to refuse to obey any order issued under this provision, with a violation of this requirement being an infraction punishable by a fine of not more than $1,000.

(5) Under existing law, a portion of the moneys collected for criminal offenses constitute state penalties, a portion of which is retained by each county and a portion of which is deposited into the State Penalty Fund, to be allocated as prescribed.

This bill would provide instead that all state penalties collected for violations of the provisions described in (4) shall be deposited in the General Fund.

(6) Existing law requires all medical laboratories to report to the State Department of Health Services each detected case of a blood lead level that exceeds specified parameters.

This bill would revise and recast these reporting requirements.

(7) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement, including the creation of a State Mandates Claims Fund to pay the costs of mandates that do not exceed $1,000,000 statewide and other procedures for claims whose statewide costs exceed $1,000,000.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

The people of the State of California do enact as follows:

SECTION 1. Section 1941.1 of the Civil Code is amended to read:

1941.1. A dwelling shall be deemed untenantable for purposes of Section 1941 if it substantially lacks any of the following affirmative standard characteristics or is a residential unit described in Section 17920.3 or 17920.10 of the Health and Safety Code:

(a) Effective waterproofing and weather protection of roof and exterior walls, including unbroken windows and doors.

(b) Plumbing or gas facilities that conformed to applicable law in effect at the time of installation, maintained in good working order.

(c) A water supply approved under applicable law that is under the control of the tenant, capable of producing hot and cold running water, or a system that is under the control of the landlord, that produces hot and cold running water, furnished to appropriate fixtures, and connected to a sewage disposal system approved under applicable law.

(d) Heating facilities that conformed with applicable law at the time of installation, maintained in good working order.

(e) Electrical lighting, with wiring and electrical equipment that conformed with applicable law at the time of installation, maintained in good working order.

(f) Building, grounds, and appurtenances at the time of the commencement of the lease or rental agreement, and all areas under control of the landlord, kept in every part clean, sanitary, and free from all accumulations of debris, filth, rubbish, garbage, rodents, and vermin.

(g) An adequate number of appropriate receptacles for garbage and rubbish, in clean condition and good repair at the time of the commencement of the lease or rental agreement, with the landlord providing appropriate serviceable receptacles thereafter and being responsible for the clean condition and good repair of the receptacles under his or her control.

(h) Floors, stairways, and railings maintained in good repair.

SEC. 1.5. Section 17920.10 is added to the Health and Safety Code, to read:

17920.10. (a) Any building or portion thereof including any dwelling unit, guestroom, or suite of rooms, or portion thereof, or the

premises on which it is located, is deemed to be in violation of this part as to any portion that contains lead hazards. For purposes of this part, ''lead hazards'' means deteriorated lead-based paint, lead-contaminated dust, lead-contaminated soil, or disturbing lead-based paint without containment, if one or more of these hazards are present in one or more locations in amounts that are equal to or exceed the amounts of lead established for these terms in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations or by this section and that are likely to endanger the health of the public or the occupants thereof as a result of their proximity to the public or the occupants thereof.

(b) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code) further interpreting or clarifying the terms ''deteriorated lead-based paint,'' ''lead-based paint,'' ''lead-contaminated dust,'' ''containment,'' or ''lead-contaminated soil,'' regulations in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations adopted by the State Department of Health Services pursuant to Sections 105250 and 124150 shall interpret or clarify these terms. If the State Department of Health Services adopts new regulations defining these terms, the new regulations shall supersede the prior regulations for the purposes of this part.

(c) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act defining the term ''disturbing lead-based paint without containment'' or modifying the term ''deteriorated lead-based paint,'' for purposes of this part ''disturbing lead-based paint without containment'' and ''deteriorated lead-based paint'' shall be considered lead hazards as described in subdivision (a) only if the aggregate affected area is equal to or in excess of one of the following:

(1) Two square feet in any one interior room or space.

(2) Twenty square feet on exterior surfaces.

(3) Ten percent of the surface area on the interior or exterior type of component with a small surface area. Examples include window sills, baseboards, and trim.

(d) Notwithstanding subdivision (c), ''disturbing lead-based paint without containment'' and ''deteriorated lead-based paint'' shall be considered lead hazards, for purposes of this part, if it is determined that an area smaller than those specified in subdivision (c) is associated with

a person with a blood lead level equal to or greater than 10 micrograms per deciliter.

(e) If the State Department of Health Services adopts regulations defining or redefining the terms ‘‘deteriorated lead-based paint,’’ ‘‘lead-contaminated dust,’’ ‘‘lead-contaminated soil,’’ ‘‘disturbing lead-based paint without containment,’’ ‘‘containment,’’ or ‘‘lead-based paint,’’ the effective date of the new regulations shall be deferred for a minimum of three months after their approval by the Office of Administrative Law and the regulations shall take effect on the next July 1 or January 1 following that three-month period. Until the new definitions apply, the prior definition shall apply.

SEC. 2. Section 17961 of the Health and Safety Code is amended to read:

17961. (a) The housing or building department or, if there is no building department acting pursuant to this section, the health department of every city, county, or city and county, or any environmental agency authorized pursuant to Section 101275, shall enforce within its jurisdiction all of this part, the building standards published in the State Building Standards Code, and the other rules and regulations adopted pursuant to this part pertaining to the maintenance, sanitation, ventilation, use, or occupancy of apartment houses, hotels, or dwellings. The health department or the environmental agency may, in conjunction with a local housing or building department acting pursuant to this section, enforce within its jurisdiction all of this part, the building standards published in the State Building Standards Code, and the other rules and regulations adopted pursuant to this part pertaining to the maintenance, sanitation, ventilation, use, or occupancy of apartment houses, hotels, or dwellings. Each department and agency, as applicable, shall coordinate enforcement activities with each other and interested departments and agencies in order to avoid unnecessary duplication.

(b) Notwithstanding subdivision (a), the health department of every city, county, or city and county, or any environmental agency authorized pursuant to Section 101275 may, in addition to the local building department, if any, enforce within its jurisdiction the provisions of Section 17920.10 and shall coordinate enforcement activities with other interested departments and agencies in order to avoid unnecessary duplication.

(c) The State Department of Health Services may enforce Section 17920.10 if any local agency or department specified in subdivisions (a) and (b) enters into a written agreement, approved and published pursuant to local government procedures, with the State Department of Health Services to enforce that section, or provides the State Department of Health Services with a written request to enforce that section for a

specific case following the identification of a lead poisoned child in that jurisdiction.

SEC. 3. Section 17980 of the Health and Safety Code is amended to read:

17980. (a) If any building is constructed, altered, converted, or maintained in violation of any provision of, or of any order or notice that gives a reasonable time to correct that violation issued by an enforcement agency pursuant to, this part, the building standards published in the California Building Standards Code, or other rules and regulations adopted pursuant to this part, or if a nuisance exists in any building or upon the lot on which it is situated, the enforcement agency shall, after 30 days' notice to abate the nuisance, institute any appropriate action or proceeding to prevent, restrain, correct, or abate the violation or nuisance.

(b) (1) Whenever the enforcement agency has inspected or caused to be inspected any building and has determined that the building is a substandard building or a building described in Section 17920.10, the enforcement agency shall commence proceedings to abate the violation by repair, rehabilitation, vacation, or demolition of the building. The enforcement agency shall not require the vacating of a residential building unless it concurrently requires expeditious demolition or repair to comply with this part, the building standards published in the California Building Standards Code, or other rules and regulations adopted pursuant to this part. The owner shall have the choice of repairing or demolishing. However, if the owner chooses to repair, the enforcement agency shall require that the building be brought into compliance according to a reasonable and feasible schedule for expeditious repair. The enforcement agency may require vacation and demolition or may itself vacate the building, repair, demolish, or institute any other appropriate action or proceeding, if any of the following occur:

(A) The repair work is not done as scheduled.

(B) The owner does not make a timely choice of repair or demolition.

(C) The owner selects an option which cannot be completed within a reasonable period of time, as determined by the enforcement agency, for any reason, including, but not limited to, an outstanding judicial or administrative order.

(2) In deciding whether to require vacation of the building or to repair as necessary, the enforcement agency shall give preference to the repair of the building whenever it is economically feasible to do so without having to repair more than 75 percent of the dwelling, as determined by the enforcement agency, and shall give full consideration to the needs for housing as expressed in the local jurisdiction's housing element.

(c) (1) Notwithstanding subdivision (b) and notwithstanding local ordinances, tenants in a residential building shall be provided notice of any violation described in subdivision (a) that affects the health and safety of the occupants and that violates Section 1941.1 of the Civil Code, an order of the code enforcement agency issued after inspection of the premises declaring the dwelling to be in violation of any provision described in subdivision (a), the enforcement agency's decision to repair or demolish, or the issuance of a building or demolition permit following the abatement order of an enforcement agency.

(2) Notice pursuant to this subdivision shall be provided to each affected residential unit by the enforcement agency that issued the order or notice, in the manner prescribed by subdivision (a) of Section 17980.6.

(d) All notices issued by the enforcement agency to correct violations or to abate nuisances shall contain a provision notifying the owner that, in accordance with Sections 17274 and 24436.5 of the Revenue and Taxation Code, a tax deduction may not be allowed for interest, taxes, depreciation, or amortization paid or incurred in the taxable year. In addition, in Los Angeles County, the notice shall contain a provision notifying the owner that within 10 days of recordation of a notice of substandard conditions or similar document, the owner is required to comply with Section 17997.

(e) The enforcement agency may charge the owner of the building for its postage or mileage cost for sending or posting the notices required to be given by this section.

SEC. 4. Section 105251 is added to the Health and Safety Code, to read:

105251. For purposes of this chapter, the following definitions shall apply:

(a) The following terms shall have the same meaning as contained in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations adopted by the State Department of Health Services pursuant to Sections 105250 and 124160: ''abatement,'' ''accredited training provider,'' ''certificate,'' ''course completion form,'' ''DHS-approved course,'' ''lead hazard,'' ''lead hazard evaluation,'' ''lead related construction work,'' ''public building,'' and ''residential building.''

(b) ''Department'' means the State Department of Health Services.

(c) ''Local enforcement agency'' means the health department, environmental agency, housing department, or building department of any city, county, or city and county.

SEC. 5. Section 105252 is added to the Health and Safety Code, to read:

105252. (a) It is unlawful for any person to offer lead-related construction courses to meet department certificate requirements unless that person is an accredited training provider as specified in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations, as adopted pursuant to Sections 105250 and 124160.

(b) It is unlawful for any person to issue, or offer to issue, a lead-related construction course completion form to any person except upon successful completion by that person of a DHS-approved course.

(c) The department or any local enforcement agency may, consistent with Section 17972, enter, inspect, and photograph any premises or facilities, and inspect and copy any business record, where any accredited training provider, or any person who offers lead-related construction courses or issues lead-related construction course completion forms, conducts business to determine whether the person is complying with this section.

(d) It is unlawful for any person who is an accredited training provider or who offers lead-related construction courses or issues lead-related construction completion forms, to refuse entry or inspection, the taking of photographs or other evidence, or access to copying of any record as authorized by this section, or to conceal or withhold evidence.

(e) A violation of this section shall be punishable by imprisonment for not more than six months in the county jail, a fine of not more than one thousand dollars ($1,000), or by both that imprisonment and fine.

SEC. 6. Section 105253 is added to the Health and Safety Code, to read:

105253. (a) Any person issued a certificate by the department to conduct lead-related construction work, abatement, or lead hazard evaluation, shall comply with regulations as specified in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations, as adopted pursuant to Sections 105250 and 124160.

(b) It is unlawful for any person to do either of the following:

(1) Falsely represent himself or herself as possessing a certificate issued by the department to conduct lead-related construction work, abatement, or lead hazard evaluation.

(2) Submit false information or documentation to the department in order to obtain or renew a certificate to conduct lead-related construction work, abatement, or lead hazard evaluation.

(c) The department or any local enforcement agency may, consistent with Section 17972, enter, inspect, and photograph any premises or facilities, and inspect and copy any business record, where any person issued a certificate by the department to perform lead-related

construction work conducts business to determine whether the person is complying with this section.

(d) A violation of this section shall be punishable by imprisonment for not more than six months in the county jail, a fine of not more than one thousand dollars ($1,000), or by both that imprisonment and fine.

SEC. 7. Section 105254 is added to the Health and Safety Code, to read:

105254. (a) The following persons engaged in the following types of lead construction work shall have a certificate:

(1) Persons who receive pay for doing lead hazard evaluations, including, but not limited to, lead inspections, lead risk assessments, or lead clearance inspections, in residential or public buildings.

(2) Persons preparing or designing plans for the abatement of lead-based paint or lead hazards from residential or public buildings.

(3) Persons doing any work designed to reduce or eliminate lead hazards on a permanent basis (to last 20 years or more) from residential or public buildings.

(4) Persons inspecting for lead or doing lead abatement activities in a public elementary school, preschool, or day care center.

(5) Persons doing lead-related construction work in a residential or public building that will expose a person to airborne lead at or above the eight-hour permissible exposure limit of 50 micrograms per cubic meter.

(b) Persons performing routine maintenance and repairs in housing are not required to have a certificate if they are not performing any of the activities listed under subdivision (a).

(c) The department may adopt regulations to modify certification requirements for persons engaged in lead construction work based on changes to state or federal law, or programmatic need.

(d) The department or any local enforcement agency may, consistent with Section 17972, enter, inspect, and photograph any premises where abatement or a lead hazard evaluation is being conducted or has been ordered, enter the place of business of any person who conducts abatement or lead hazard evaluations, and inspect and copy any business record of any person who conducts abatement or lead hazard evaluations to determine whether the person is complying with this section.

(e) A violation of this section shall be punishable by imprisonment for not more than six months in the county jail, a fine of not more than one thousand dollars ($1,000), or by both that imprisonment and fine.

SEC. 8. Section 105255 is added to the Health and Safety Code, to read:

105255. (a) No person shall perform lead-related construction work on any residential or public building in a manner that creates a lead hazard.

(b) The department and any local enforcement agency may, consistent with Section 17972, enter, inspect, and photograph any premises where lead-related construction work is being performed, enter the place of business of any person who performs lead-related construction work, and inspect and copy any business record of any person who performs lead-related construction work to determine whether the person is complying with this section and any regulations specified in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations adopted by the State Department of Health Services pursuant to Sections 105250 and 124160.

(c) Notwithstanding any other provision of law, whenever the department or a local enforcement agency determines that a condition at a location or premises, or the activity of any person at the location or premises, is creating or has created a lead hazard at the location or premises, the department or the local enforcement agency may order the owner of the location or premises to abate or otherwise correct, at the option of the owner, the lead hazard, and may order the person whose activity is creating or has created the lead hazard, to cease and desist and shall give that owner or person a reasonable opportunity to correct.

(d) It is unlawful for any person to refuse or disobey any order issued pursuant to subdivision (c).

(e) A violation of subdivision (d) shall be punishable by a fine not to exceed one thousand dollars ($1,000). Any penalties under this section shall be in addition to any other penalty or remedy provided by law.

SEC. 9. Section 105256 is added to the Health and Safety Code, to read:

105256. (a) Notwithstanding any other provision of law, whenever the department or a local enforcement agency determines that a condition at a location or premises, or the activity of any person at the location or premises, is creating or has created a lead hazard at the location or premises, the department or the local enforcement agency may order the owner of the location or premises to abate the lead hazard, and may order the person whose activity is creating or has created the lead hazard, to cease and desist.

(b) It is unlawful for any person to refuse to obey any order issued pursuant to this section.

(c) A violation of this section shall be an infraction punishable by a fine not to exceed one thousand dollars ($1,000). Any penalties under this section shall be in addition to any other penalty or remedy provided by law.

SEC. 10. Section 105257 is added to the Health and Safety Code, to read:

105257. Notwithstanding subdivision (f) of Section 1464 of the Penal Code, any state penalties paid for the violation of this chapter shall be deposited into the General Fund.

SEC. 11. Section 124130 of the Health and Safety Code is amended to read:

124130. (a) A laboratory that performs a blood lead analysis on a specimen of human blood drawn in California shall report the information specified in this section to the department for each analysis on every person tested.

(b) The analyzing laboratory shall report all of the following:

(1) The test results in micrograms of lead per deciliter.

(2) The name of the person tested.

(3) The person's birth date if the analyzing laboratory has that information, or if not, the person's age.

(4) The person's address if the analyzing laboratory has that information, or if not, a telephone number by which the person may be contacted.

(5) The name, address, and telephone number of the health care provider that ordered the analysis.

(6) The name, address, and telephone number of the analyzing laboratory.

(7) The accession number of the specimen.

(8) The date the analysis was performed.

(c) The analyzing laboratory shall report all of the following information that it possesses:

(1) The person's gender.

(2) The name, address, and telephone number of the person's employer, if any.

(3) The date the specimen was drawn.

(4) The source of the specimen, specified as venous, capillary, arterial, cord blood, or other.

(d) The analyzing laboratory may report to the department other information that directly relates to the blood lead analysis or to the identity, location, medical management, or environmental management of the person tested.

(e) If the result of the blood lead analysis is a blood lead level equal to or greater than 10 micrograms of lead per deciliter of blood, the report required by this section shall be submitted within three working days of the analysis. If the result is less than 10 micrograms per deciliter, the report required by this section shall be submitted within 30 calendar days.

(f) Commencing January 1, 2003, a report required by this section shall be submitted by hand, courier, postal mail, facsimile, or electronic

transfer. Commencing January 1, 2005, a report required by this section shall be submitted by electronic transfer.

(g) All information reported pursuant to this section shall be confidential, as provided in Section 100330, except that the department may share the information for the purpose of surveillance, case management, investigation, environmental assessment, environmental remediation, or abatement with the local health department, environmental health agency authorized pursuant to Section 101275, or building department. The local health department, environmental health agency, or building department shall otherwise maintain the confidentiality of the information in the manner provided in Section 100330.

(h) The director may assess a fine up to five hundred dollars ($500) against any laboratory that knowingly fails to meet the reporting requirements of this section.

(i) A laboratory shall not be fined or otherwise penalized for failure to provide the patient's birth date, age, address, or telephone number if the result of the blood lead analysis is a blood lead level less than 25 micrograms of lead per deciliter of blood, and if all of the following circumstances exist:

(1) The test sample was sent to the laboratory by another medical care provider.

(2) The laboratory requested the information from the medical care provider who obtained the sample.

(3) The medical care provider that obtained the sample and sent it to the laboratory failed to provide the patient's birth date, age, address, or telephone number.

SEC. 12. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution for certain costs that may be incurred by a local agency or school district because in that regard this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

However, notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains other costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement

does not exceed one million dollars ($1,000,000), reimbursement shall be made from the State Mandates Claims Fund.

O

Appendix 11

Lead Hazard Prevention and Control Ordinance

The City Of San Diego
Municipal Code: Chapter 5, Article 4, Division 10

Table of Contents

DATE OF FINAL PASSAGE _____

AN ORDINANCE OF THE CITY OF SAN DIEGO AMENDING CHAPTER 5, ARTICLE 4, DIVISION 10 OF THE SAN DIEGO MUNICIPAL CODE BY RENAMING DIVISION 10; BY AMENDING SECTIONS 54.1001, 54.1002, 54.1003, 54.1004, 54.1005, AND 54.1006; AND BY ADDING SECTIONS 54.1007, 54.1008, 54.1009, 54.1010, 54.1011, 54.1012, 54.1013, 54.1014, AND 54.1015; ALL RELATING TO LEAD HAZARD PREVENTION AND CONTROL; AND FINDING AS TO ENVIRONMENTAL IMPACT.

WHEREAS, the Centers for Disease Control and Prevention estimates that more than 434,000 preschoolers are affected by lead poisoning in the United States, and that lead poisoning is one of the most common, preventable pediatric health problems in this country; and

WHEREAS, lead is most harmful to young children because lead is absorbed into their growing bodies, interfering with the developing brain and other organs and systems such as the nervous system and kidneys. Lead poisoning has been linked to reduced IQ, attention deficit disorder, hearing loss, impaired growth, reading and learning disabilities, and other health, behavioral, and intellectual consequences; and

WHEREAS, while lead poisoning crosses socioeconomic, geographic, and racial boundaries, lead poisoning predominantly affects children from low-income families living in older, poorly maintained housing; and

WHEREAS, the Council of the City of San Diego takes legislative notice of the contents of the City Manager's Report regarding the Lead-Safe Neighborhoods Program (CMR-04-178) and its accompanying oral and documentary evidence as presented before the Land Use and Housing Committee on August 4, 2004; NOW, THEREFORE,

BE IT ORDAINED, by the Council of The City of San Diego, as follows:

Section 1. That Chapter 5, Article 4, Division 10, of the San Diego Municipal Code is hereby amended by renaming Division 10 “Lead Hazard Prevention and Control Ordinance,” by amending Sections 54.1001, 54.1002, 54.1003, 54.1004, 54.1005, and 54.1006, and by adding Sections 54.1007, 54.1008, 54.1009, 54.1010, 54.1011, 54.1012, 54.1013, 54.1014, and 54.1015, to read as follows:

Division 10
Lead Hazard Prevention and Control Ordinance

§ 54.1001 Findings

The Council of the City of San Diego finds and declares that:

(a) Problem: In the City of San Diego, between 1992 and 2003, there were 781 reported cases of childhood lead poisoning (greater then 15 µg/dL) and almost 300 children in 2003 with blood lead levels greater then 10 µg/dL in San Diego County. These figures are not considered a true representation of the problem, as only a small percentage of children are tested (state average is 20%). The Centers for Disease Control and Prevention has declared that the most effective approach to lead poisoning is prevention by eliminating lead hazards from children's environment.

(b) Health Effects: Lead is most harmful to young children because it interferes with the development of the brain, as well as other organs and systems such as the kidneys and nervous system. Lead poisoning has been linked to reduced IQ, attention deficit disorder, hearing loss, impaired growth, and reading and learning disabilities. Recent research has revealed that even low levels of lead exposure can cause a permanent decrease in a child's IQ. In adults, high lead levels can cause high blood pressure, headaches, digestive problems, memory and concentration problems, kidney damage, mood changes, nerve disorders, sleep disturbances, and muscle or joint pain.

(c) Housing Stock: Lead-based paint, and associated lead-contaminated dust and lead-contaminated soil, is the number one source of lead poisoning. According to the 2000 United States census, approximately sixty-six percent (310,000) of the housing units in the City of San Diego were built before 1979, and approximately twenty-eight percent (135,000) of the City of San Diego's housing stock was constructed before 1960.

(d) Prevention is Key: Childhood lead poisoning is preventable. There is no medical treatment to reverse the effects of lead poisoning. Household lead hazards can be permanently eliminated by abatement or controlled through proper maintenance and lead-safe work practices.

(e) Lead Paint Ban: The Consumer Product Safety Commission banned the use of lead in concentrations greater than 600 parts per million in residential paint after February 27, 1978. For this reason, paint applied to a dwelling unit or structure prior to January 1, 1979, is presumed to contain lead unless leadbased paint testing proves it is below thresholds defined in Division 10. All paint applied to a steel structure is presumed to contain lead unless leadbased paint testing proves it is below thresholds defined in Division 10.

(f) Lead Hazard: A lead hazard found on any property, premises, dwelling unit, structure, or steel structure within the City of San Diego is a public nuisance.

(g) Lead Safe Work Practices: Dust generated in disturbance of lead paint during renovation and repair is a principal source of lead dust exposure to our children and community. Unless the dust

is contained, it permeates the carpet, ductwork, and soil, so that children and adults may breathe or ingest the dust for months and years to come.

(h) Authority: The implementation of Division 10 and the associated enforcement will assist in reducing the presence of lead hazards and, thereby, help the City of San Diego in achieving its goal of eliminating childhood lead poisoning. On January 1, 2003, California implemented Senate Bill 460, which modified California Civil Code section 1941.1 and California Health and Safety Code sections 17920.10, 17980, 105255, and 105256 that state that the existence of lead hazards in housing can constitute a violation of State Housing Law and make it illegal for maintenance or construction activities to generate lead hazards. Amended Health and Safety Code sections 17961, 17980, 105255, and 105256 provide local jurisdictions with specific authority to correct and prevent lead hazards. Division 10 establishes the City of San Diego's enforcement mechanism for purposes of Senate Bill 460 and also provides additional regulation and enforcement tools which will help reduce the exposure of children and others to lead hazards.

(i) Tenant Protection: The Council acknowledges that California Civil Code section 1942.5 prohibits certain acts of retaliation by a landlord against a tenant because of the tenant's complaint to an appropriate agency regarding a residential unit which contains lead hazards.

(j) Necessary Service: The performance of a lead risk assessment in the interior and on the exterior of a dwelling unit constructed prior to January 1, 1979, as well as the common areas of the dwelling unit, is a necessary service and/or repair to protect the health, safety, and welfare of the occupants of the dwelling unit and the public.

§ 54.1002 Purpose

The purpose of Division 10 is:
(a) to prevent, identify, and remedy lead hazards in housing before children are poisoned;
(b) to protect occupants and the public from exposures to lead hazards;
(c) to provide standards to implement lead hazard control requirements;
(d) to strengthen the authority of local agencies responding to lead paint poisoning cases; and
(e) to establish and promote lead-safe work practice standards for owners, maintenance workers, and all persons involved in lead hazard control and activities such as remodeling, renovation, rehabilitation, and repair that disturb lead paint, in order to protect occupants and the public from exposure to lead hazards.

§ 54.1003 Definitions

All defined terms in Division 10 appear in italics, except for the terms Building Permit and Demolition/Removal Permit which refer to those terms respectively as used in the Land Development Code and which, consistent with the Land Development Code, are not italicized in this Division. For purposes of Division 10, the following terms have the following meanings:

Accredited laboratory means a laboratory which is accredited through the United States Environmental Protection Agency National Lead Laboratory Accreditation Program.

Adjacent properties means properties that abut the property at which activities which disturb or remove paint have been, are being, or will be performed.

Certified means a process used by the State of California Department of Health Services and the United States Environmental Protection Agency to identify individuals who have completed training and other requirements to permit the proper and safe execution of lead risk assessments and lead inspections, lead dust clearance sampling, or lead hazard reduction and control work.

Child means any person less than six years of age.

Child-care facility means a facility that provides nonmedical care for children less than 18 years of age in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual on less than a 24-hour basis. This includes day care centers and employer-sponsored child care centers.

Clearance inspection means an onsite limited investigation, performed by a certified lead inspector/assessor or a certified lead project monitor, of single surface dust sampling or soil sampling a minimum of one hour after completion of final cleanup activities to determine whether dust or soil lead levels are below thresholds defined in Division 10. The methodology for conducting the sampling shall follow procedures as defined in 40 Code of Federal Regulations part 745.227, as it may be amended from time to time.

Containment barriers means a system, process, or barrier, on the interior or exterior of a dwelling unit, structure, or steel structure, designed to ensure that lead-contaminated dust, lead-contaminated soil, or lead paint contaminants are not spread, blown, or tracked from inside to outside of a work site, which system, process, or barrier is at least as effective as those contained within the HUD Guidelines, or, for steel structures, at least as effective as those contained in the most recent edition of the Lead Paint Removal Guide published by the Steel Structures Painting Council.

De minimis levels means an area less than: (1) two square feet in any one interior room or space of a dwelling unit or structure; or (2) twenty square feet on an exterior surface; or (3) ten percent of the surface area on any component part, either interior room or space or exterior, with a small surface area such as a window sill, baseboard, or trim.

Department means the City Environmental Services Department and/or the Neighborhood Code Compliance Department.

Deteriorated paint means paint that is cracking, flaking, chipping, peeling, or otherwise separating from the substrate of the dwelling unit or any component thereof.

DPH means the California Department of Public Health.

Director has the same meaning as set forth in section 11.0210 of this Code.

Disturb or remove paint means any action that creates friction, pressure, heat, or a chemical reaction upon any paint on an interior or exterior surface so as to abrade, loosen, penetrate, chip, cut through, remove, or eliminate paint from that surface. This term shall include all lead hazard correction activities, all demolition activities, and all surface preparation activities performed upon an interior or exterior surface containing paint.

Dwelling unit has the same meaning as set forth in section 113.0103 of this Code and also includes multiple dwelling unit and single dwelling unit as those terms are defined in section 113.0103 of this Code.

Enforcement official has the same meaning as set forth in section 11.0210 of this Code.

Exterior means the outside of a dwelling unit, structure, or steel structure and the areas around it within the boundaries of the property, including the exterior of any detached structure, and including, but not limited to, freestanding and common walls, stairways, fences, light wells, breezeways, sheds, garages, patio covers, decks, and any similar structures.

HEPA means a High Efficiency Particulate Air Filter.

Home improvement store means all retail stores which sell home improvement products including, but not limited to, paint and paint removal products, construction and building materials, and tools and hardware.

HUD Guidelines means the most recent version of the United States Department of Housing and Urban Development "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing."

Imminent lead hazard means a lead hazard which creates a present and immediate danger to life, property, health, or public safety.

Landlord means an owner, lessor, or sublessor who receives or is entitled to receive rent for the use or occupancy of any commercial or residential rental property in the City of San Diego, and the agent, representative, or successor of any of the foregoing.

Lead means metallic lead and all inorganic and organic compounds of lead.

Lead-based paint or lead paint means paint or other surface coatings that contain an amount of lead equal to, or in excess of, one milligram per square centimeter (1.0 mg/cm^2) or one-half of one percent (0.5%) by weight.

Lead-based paint testing means: (1) testing of surfaces to determine the presence of lead-based paint performed by an independent Certified Lead Risk Assessor/Inspector, in accordance with the HUD Guidelines, and which testing includes bulk paint samples analyzed by an accredited laboratory; or (2) testing by an XRF.

Lead-contaminated dust means dust that contains an amount of lead equal to, or in excess of, forty micrograms per square foot (40 µg/ft2) for interior floor surfaces, two hundred and fifty micrograms per square foot (250 µg/ft2) for interior horizontal window surfaces, and four hundred micrograms per square foot (400 µg/ft2) for exterior floor and exterior horizontal window surfaces.

Lead-contaminated soil means bare soil that contains an amount of lead equal to, or in excess of, four hundred parts per million (400 ppm) in childrens' play areas and one thousand parts per million (1000 ppm) in all other areas.

Lead dust testing means tests conducted in accordance with the most recent federal guidelines to determine the presence or absence of lead-contaminated dust within a defined area.

Lead hazard means: (1) the existence of deteriorated paint over a surface area larger than de minimis levels in the interior or exterior of a dwelling unit or structure constructed prior to January 1, 1979; or (2) the existence of deteriorated paint, in the interior or exterior of a dwelling unit or structure constructed prior to January 1, 1979, over a surface area smaller than de minimis levels but which, as determined by an enforcement official, is likely to endanger the health of the public or the occupants of the dwelling unit or structure; or (3) the disturbance of leadbased paint or presumed lead-based paint without containment barriers; or (4) the creation or maintenance of any other condition which may result in persistent and quantifiable lead exposure; or (5) the presence of lead-contaminated dust or lead-contaminated soil.

Lead inspection means a surface by surface investigation to determine the presence of lead paint, as described in Chapter 7: Lead-Based Paint Inspection, HUD Guidelines, as they may be amended from time to time, conducted by a Certified Lead Inspector/Assessor.

Lead paint contaminants means substances containing lead paint or presumed lead-based paint which are potentially hazardous to human health or the environment including, but not limited to, paint chips and paint-containing soil, debris, dust, abrasives, fumes, or water.

Lead risk assessment means an on-site investigation by a Certified Lead Inspector/Assessor to determine the existence, nature, severity, and location of lead hazards and the preparation of a written report describing the results of the investigation and options for eliminating lead hazards.

Lead soil testing means tests conducted in accordance with the most recent federal guidelines to determine the presence or absence of lead-contaminated soil within a defined area.

Occupants means tenants or other persons legally authorized to occupy or partially occupy the property.

Owner means the person or persons owning property or any improvements thereon in the City of San Diego and includes such person's legally authorized agent or representative and any successors in interest.

Paint means any paint, varnish, shellac, or other similar coating.

Person means any natural person, municipal, county, or state agency to the extent allowable by law, firm, joint venture, joint stock company, business concern, trust, organization, club, association, partnership, company, or corporation, or the officers, agents, employees, managers, representatives, heirs, executors, administrators, successors, or assigns of any of them or any other entity which is recognized by law as the subject of rights and duties.

Premises has the same meaning as set forth in section 54.0202 of this Code.

Presumed lead-based paint means paint or surface coating affixed to a component in or on a dwelling unit, structure, or steel structure, excluding paint or surface coating affixed to a component in or on a dwelling unit or structure constructed on or after January 1, 1979.

Prohibited practices means work practices prohibited under section 54.1006 of this Code.

Property means real property, together with any and all improvements thereon.

Public nuisance has the same meaning as that set forth in section 11.0210 of this Code.

Regulated area means an area in which work is being performed that disturbs or removes paint and to which access is restricted in order to prevent migration of paint contaminants. Regulated area shall also include any area contaminated with lead paint as a result of a breach or lack of containment barriers or a violation of the containment requirements set forth in section 54.1006.

Renovation means any modification of all or part of an existing dwelling unit, structure, or steel structure which modification disturbs or removes paint.

Renovator means any person who performs for compensation a renovation.

Responsible person means a person who a Director determines is responsible for causing or maintaining a public nuisance or a violation of this Code or applicable state codes. The term responsible person includes, but is not limited to, an owner, tenant, person with a legal interest in property or improvements thereon, and/or a person in possession of property.

Steel structure means any structure that is not a building and that has exterior surfaces made of steel or other metal including, but not limited to, bridges, billboards, walkways, water towers, steel tanks, and roadway or railway overpasses.

Structure has the same meaning as that set forth in section 113.0103 of this Code.

Underlying defect means any condition or circumstance which generates, creates, or sustains a lead hazard.

XRF means a portable X-Ray Fluorescence Spectrometer.

§ 54.1004 Lead Hazard Unlawful

(a) It is unlawful to create and/or maintain a lead hazard or allow a lead hazard to remain upon any property, premises, surfaces, dwelling unit, structure, steel structure, or appurtenances.

(b) It is unlawful to fail to reduce or eliminate a lead hazard.

§ 54.1005 Lead-Safe Work Practice Standards Required

(a) It is presumed that paint in the interior or on the exterior of all dwelling units and all structures constructed prior to January 1, 1979, and all steel structures is lead-based paint.

(b) Any person who disturbs or removes paint from any surface in the interior or on the exterior of a dwelling unit or structure constructed prior to January 1, 1979, or from any surface on a steel structure shall use lead-safe work practice standards as set forth in section 54.1006, unless a Certified Lead Inspector/Assessor determines, prior to the commencement of activities which disturb or remove paint, that the concentration of lead in the paint is below 1000 ppm or .5 mg/cm^2.

(c) Any person who disturbs or removes paint in any amount in the interior or on the exterior of a dwelling unit to correct a lead hazard where a child with blood lead levels greater than or equal to 10 µg/dL has been identified shall use lead-safe work practice standards as set forth in section 54.1006.

(d) Section 54.1005 does not change the definition of lead-based paint and is only intended to identify when lead-safe work practice standards are required.

(e) The failure to use lead-safe work practice standards as set forth in section 54.1005 shall constitute a violation of Division 10. The lead-safe work practice standards set forth in Division 10 are in addition to, and are not a substitute for, any requirements under state or federal law. Compliance with the lead-safe work practice standards set forth in section 54.1006 does not negate responsibility for a violation of section 54.1004.

§ 54.1006 Lead Safe Work Practice Standards

The lead-safe work practice standards in this section apply to all activities which disturb or remove paint which is lead-based paint or presumed lead-based paint.

(a) Notice to Occupants

Not less than seven business days before beginning activities which disturb or remove paint, a written notice, in accordance with state and federal law, shall be posted in a conspicuous location and provided to each occupant of a dwelling unit and/or structure where such activities will be conducted. A person who engages in unplanned activities that disturb or remove paint, in response to a sudden, unexpected event which, if not immediately attended to, would present a safety or public health hazard or would threaten property with significant damage, shall provide written notice to each occupant of a dwelling unit and/or structure prior to engaging in such activities.

(1) The written notice shall identify the location in the dwelling unit and/or structure where such activities will take place, state that lead-related activities will be performed at the dwelling unit and/or structure, and state the dates for the performance of such activities.

(2) The written notice shall be in the form of a sign and letter or memorandum, shall be placed in a conspicuous location open and available to occupants of or any person visiting the dwelling unit and/or structure, and shall prominently state the following: “Work is scheduled to be performed beginning [date] on this property that may disturb or remove lead-based paint.”

(3) Prior to beginning activities which disturb or remove paint, the owner of the property shall provide each occupant with a copy of the U.S. Environmental Protection Agency pamphlet entitled “Protect Your Family From Lead-Based Paint in Your Home,” unless the owner has previously provided this pamphlet to the occupant.

(4) For purposes of Division 10, renovators performing activities which disturb or remove paint shall comply with 40 Code of Federal Regulations part 745, subpart E, as they may be amended from time to time, by providing to each occupant the U.S. Environmental Protection Agency pamphlet entitled “Protect Your Family From Lead-Based Paint in Your Home,” by complying with the required paperwork, and by maintaining the required records.

(b) Occupant Protection

Occupants shall not be permitted to enter the regulated area during the course of activities which disturb or remove paint (unless they are employed in the conduct of these activities in the regulated area), until after activities which disturb or remove paint have been completed and clearance as set forth in section 54.1006 has been achieved.

(c) Temporary Relocation

(1) Occupants of a dwelling unit shall be temporarily relocated, before and during the course of activities which disturb or remove paint, to a suitable, decent, safe, comparable, and similarly accessible dwelling unit that does not have a lead hazard, unless:

> (A) the activities will not disturb lead-based paint, lead-contaminated dust or lead-contaminated soil;
>
> (B) the activities affect only the exterior of the dwelling unit, and windows, doors, ventilation intakes, and other openings in or near the regulated area are sealed during the course of the activities and cleaned afterward, and at least one entrance is free of leadcontaminated dust, lead-contaminated soil, and lead paint contaminants;
>
> (C) the activities in the interior of the dwelling unit will be started and completed during the daytime within eight consecutive hours, the regulated area is contained so as to prevent the release of leadcontaminated dust and lead paint contaminants into other areas, and the activities do not create other safety, health, or environmental hazards (e.g., exposed live electrical wiring, release of toxic fumes, or on-site disposal of hazardous waste); or

(D) the activities in the interior of the dwelling unit will be completed within five consecutive days, the regulated area is secure so as to prevent the release of lead-contaminated dust and lead paint contaminants into other areas, the activities do not create other safety, health, or environmental hazards, and, at the end of work on each day, the regulated area and the area within at least ten feet of the regulated area is cleaned to remove any visible dust or debris, and occupants have safe access to sleeping areas and bathroom and kitchen facilities.

(2) Occupants' belongings shall be protected from contamination by lead contaminated dust and lead paint contaminants during the course of activities which disturb or remove paint. Occupants' belongings in the regulated area shall be relocated to a safe and secure area outside the regulated area or shall be completely covered with an impermeable covering with all seams and edges taped or otherwise sealed.

(d) Worksite Preparation

The regulated area shall be prepared to prevent the release of dust, and to contain, within the regulated area, lead-based paint chips, lead-contaminated dust, lead-contaminated soil, and lead paint contaminants from activities which disturb or remove paint until they can be safely removed from the regulated area. Practices that minimize the spread of lead-contaminated dust, lead-based paint chips, lead-contaminated soil, and lead paint contaminants shall be used during preparation of the regulated area for work which disturbs or removes paint. The tables in Appendix “A” identify the minimum required levels of worksite preparation, as excerpted from the HUD Guidelines.

(e) Specialized Cleaning

After activities which disturb or remove paint have been completed, the regulated area shall be cleaned by using:
(1) methods, products, and devices which are successful in removing lead-contaminated dust, such as a HEPA vacuum or other method of equivalent efficacy; and
(2) all purpose general detergents or lead-specific detergents or by following the HUD Guidelines.

(f) Visible Lead Paint Contaminants

All visible lead paint contaminants shall be cleaned up daily and removed from the regulated areas prior to completion of the activities which disturb or remove paint.

(g) Disposal

All waste generated from activities which disturb or remove paint, which is lead-based paint or presumed lead-based paint, is deemed hazardous waste pursuant to title 22 of the California Code of Regulations, as it may be amended from time to time, and must be disposed of lawfully.

(h) Lead-Safe Work Practice Clearance Inspection Standards

(1) A visual inspection to verify the absence of visible dust or debris must be performed upon the completion of all activities which disturb or remove paint:

(A) where the paint is presumed lead-based paint covering a surface area and/or affecting a component as described in the tables in Appendix "A"; or

(B) where lead-based paint testing performed on the paint revealed lead levels greater than 1000 ppm or 0.5 mg/cm^2.

A renovator shall record the results of the visual inspection on the form provided by the City of San Diego, shall maintain that form for a minimum of three years, and shall make all such forms available to the City of San Diego upon request.

(2) A clearance inspection must be performed upon the completion of all activities which disturb or remove paint and after visual inspection:

(A) where the paint is presumed lead-based paint covering a surface area and/or affecting a component as described in the tables in Appendix "A"; or

(B) where lead-based paint testing performed on the paint revealed lead levels greater than 5000 ppm or 1.0 mg/cm^2. A copy of the DPH Form 8552 for each clearance inspection shall be submitted to the City of San Diego at:
Environmental Services Department Lead Safe Neighborhoods Program Form 8552
9601 Ridgehaven Court, Ste 310
San Diego, CA 92123

Submittal of the 8552 form to the City of San Diego does not satisfy the requirement of title 17 of the California Code of Regulations for submittal of the 8552 form to the DPH.

(3) The lead-safe work practice clearance inspection standards shall be performed only by a Certified Lead Inspector/Assessor or certified lead project monitor.

(4) All clearance inspection procedures shall be in compliance with 40 Code of Federal Regulations part 745.227, as it may be amended from time to time, and shall meet title 17 of the California Code of Regulations clearance guidelines, as it may be amended from time to time.

(i) Prohibited Practices

It is unlawful to use prohibited practices while conducting activities which disturb or remove paint including, but not limited to:
(1) acetylene or propane burning and torching;
(2) scraping, sanding, or grinding without containment barriers or a HEPA local vacuum exhaust tool;
(3) hydro-blasting or high-pressure wash without containment barriers;
(4) abrasive blasting or sandblasting without containment barriers or a HEPA local vacuum exhaust tool; or
(5) heat guns operating above 1,100 degrees fahrenheit;

§ 54.1007 Lead Hazards in Housing

(a) Presumption

For all dwelling units constructed prior to January 1, 1979, it is presumed that the paint in the interior or on the exterior of the dwelling unit is lead-based paint.

(b) Owner's Opportunity to Rebut Presumption

(1) The owner of a dwelling unit constructed prior to January 1, 1979, may apply to the Department to have such dwelling unit exempted from the presumption contained in section 54.1007(a) when either:

(A) lead-based paint testing results demonstrate that no lead paint is present in the interior or on the exterior of such dwelling unit; or

(B) documentation from a Certified Lead Inspector/Assessor demonstrates that alterations have been made to the dwelling unit and such alterations have resulted in the removal of all lead-based paint in that dwelling unit.

(2) The Director shall establish written policies that set forth criteria for granting the exemption described in section 54.1007(b).

(c) Owner's Duty to Correct

(1) The existence of a lead hazard in any dwelling unit is hereby declared to constitute a condition dangerous to life and health. The owner of a dwelling unit shall take action to prevent the occurrence of a lead hazard and shall expeditiously correct a lead hazard, upon receiving notice of its existence, in accordance with section 54.1006. If the lead hazard is caused in whole or in part by an underlying defect, the owner of the dwelling unit shall correct the underlying defect to prevent a further lead hazard.

(2) The owner of a dwelling unit shall correct all identified lead hazards and complete the clearance inspection within thirty (30) days of receiving notice of the existence of the lead hazard, unless:

(A) the Director or designee determines that a lead hazard is present, which lead hazard constitutes an immediate threat to the health and safety of occupants of the dwelling unit, in which case the owner of the dwelling unit shall comply with the Director's or designee's directives; or

(B) the owner of the dwelling unit files a statement of intent and work plan demonstrating the need for additional time to correct the lead hazard, a proposed work schedule, and the methods by which the owner will accomplish compliance with Division 10 including, but not limited to, compliance with the temporary relocation requirements of section 54.1006(c), in which case the Director or designee may extend the time for compliance with Division 10.

(3) Within seven days after completing the clearance inspection, the owner of a dwelling unit shall provide proof of compliance with section 54.1007 by submitting a copy of the DPH Form 8552 for each clearance inspection to the City of San Diego at:

Environmental Services Department
Lead Safe Neighborhoods Program Form 8552

9601 Ridgehaven Court, Ste 310
San Diego, CA 92123

Submittal of the 8552 form to the City of San Diego does not satisfy the requirement of title 17 of the California Code of Regulations for submittal of the 8552 form to the DPH.

(d) Administrative abatement of a lead hazard shall be in accordance with the procedures provided in San Diego Municipal Code Chapter 1, Article 2, Division 6.

(e) Summary abatement of an imminent lead hazard shall be in accordance with the procedures provided in San Diego Municipal Code Chapter 1, Article 2, Division 7.

(f) Judicial abatement of a lead hazard shall be in accordance with the procedures provided in San Diego Municipal Code Chapter 1, Article 2, Division 2.

§ 54.1008 Procedures for Occupant Relocation

(a) The responsible person is responsible for the relocation and associated costs of any occupants displaced as a result of a judicial, administrative or summary abatement action pursuant to Division 10 and must follow applicable requirements of state law.

(b) If relocation costs are paid by the City, the costs shall be assessed against the responsible person as an administrative or summary abatement cost or as part
of a judicial action and may be recovered pursuant to procedures in San Diego Municipal Code Chapter 1, Article 3, Division 3 (Recovery of Abatement Costs).

§ 54.1009 Visual Lead Inspection and Correction Prior to Re-Occupancy of Rental Housing

For all rental dwelling units constructed prior to January 1, 1979, the responsible person shall conduct a visual inspection for deteriorated paint each time a tenant vacates the dwelling unit and prior to re-occupancy of the dwelling unit. Deteriorated paint shall be corrected prior to re-occupancy in accordance with Division 10, unless lead-based paint testing proves the deteriorated paint is not lead-based paint. Inspection, testing, and correction documents shall be maintained for three years and shall be made available to the City of San Diego upon request.

§ 54.1010 Duty to Notify

(a) All home improvement stores and stores which sell or rent high pressure water equipment shall maintain a supply of the lead-safe work practices pamphlets prepared and supplied by the Director. The pamphlets shall be prominently displayed where painting supplies are sold and high pressure water equipment is sold or rented and shall be provided upon request to customers or other invitees.

(b) Home improvement stores and stores which sell or rent high pressure water equipment shall conspicuously post the Lead-Safe Work Practices sign prepared by the Director or a sign of substantially the same size, typeface, and language. The sign shall make the following statement,

or a substantially equivalent statement, in large or boldface capital letters no less than one-half inch in size:

IT IS UNLAWFUL TO CREATE A LEAD HAZARD. YOU ARE REQUIRED TO USE LEAD-SAFE WORK PRACTICES IF YOU LIVE IN A PRE-1979 DWELLING AND WILL BE DISTURBING PAINT. PAINTING AND REMODELING CAN EXPOSE YOUR FAMILY TO LEAD. ASK FOR A FREE PAMPHLET ON LEADBASED PAINT HAZARDS.

(c) For all dwelling units constructed prior to January 1, 1978, the responsible person shall be in compliance with 24 Code of Federal Regulations parts 35.80– 98 inclusive.

(d) All DPH-certified lead personnel conducting lead hazard evaluation (e.g., risk assessment, clearance inspection, paint testing, dust sampling, etc.) shall deliver a completed copy of the DPH Lead Hazard Evaluation Report (Form 8552) to the City of San Diego, if the property evaluated is located within the city limits of the City of San Diego, within thirty days of conducting the evaluation. The copy shall be submitted to:

City of San Diego
Environmental Services Lead Form 8552
9601 Ridgehaven Court, Suite 310
San Diego, CA 92123

Submittal of the 8552 form to the City of San Diego does not satisfy the requirement of title 17of the California Code of Regulations for submittal of the 8552 form to the DPH.

§ 54.1011 Child-Care Facility

Each child-care facility licensed or approved by the State of California, except for a child-care facility located on public school property, shall require a parent or legal guardian of each child between the ages of six months and seven years of age inclusive to provide a statement from a physician or health care provider that the child has been screened for lead poisoning. This statement must indicate that the screening of the child has been performed in accordance with applicable criteria mandated by the State of California. This statement shall be provided prior to admission, but in no event later than thirty days after admission. The child-care facility shall maintain the statement for three years after receipt and shall make such statements available to the City for review during normal operating hours upon request. Nothing in section 54.1012 shall be construed to require any child to undergo a blood lead level screening or test when the parent or guardian of the child objects on the grounds that the screening or test conflicts with his or her religious beliefs.

§ 54.1012 Enforcement Authority

(a) The Director is authorized to administer and enforce the provisions of Chapter 5, Article 4, Division 10 of this Code. The Director or anyone designated by the Director to be an enforcement official may exercise any enforcement powers as provided in Chapter 1 of this Code.

(b) In addition to the general enforcement powers provided in Chapter 1 of this Code, the Director or designee may exercise any of the following supplemental enforcement powers as the Director or designee determines may be necessary under the circumstances.

(1) Inspection Authority
The Director or designee is authorized to inspect the interior and exterior of any dwelling unit, structure, steel structure, adjacent properties, or premises where conditions may exist which could amount to a lead hazard or where activities which may disturb or remove paint, which is lead-based paint or presumed lead-based paint, have been, are being, or will be conducted, for the purpose of determining the validity of a complaint or compliance with Division 10. All inspections shall be conducted in a reasonable manner. If an owner, occupant, or agent refuses permission to enter or inspect, the Director or designee may seek an administrative inspection warrant pursuant to the procedures provided for in California Code of Civil Procedure sections 1822.50 through 1822.60.

(2) Sampling Authority
The Director or designee may collect paint, dust, and soil samples from the interior or exterior of a dwelling unit, structure, steel structure, adjacent properties, or premises where conditions may exist which amount to a lead hazard or where activities which disturb or remove paint, which is lead-based paint or presumed lead-based paint, have
been, are being, or will be conducted, for the purpose of determining the validity of a complaint or compliance with Division 10.

(3) Training
The Director or designee may require a responsible person, and any employee, agent, or representative of a responsible person in violation of Division 10 to attend an approved lead-safe work practice training course. The Director or designee shall require proof of attendance and satisfactory completion of the course, including certification from the
instructor or provider of the course. Upon receipt of said proof, the Director or designee, in his or her sole discretion, may reduce or eliminate an administrative penalty, if any, imposed for a violation of Division 10.

§ 54.1013 Enforcement Remedies

(a) It is unlawful to violate any provision or requirement of Division 10. The failure to comply with any requirement of Division 10 constitutes a violation of Division 10. Violations of the provisions or requirements of Division 10 may be prosecuted as misdemeanors subject to the penalties provided in section 12.0201 of this Code. The Director or designee alternatively may seek injunctive relief or civil penalties in the Superior Court pursuant to section 12.0202 of this Code or may pursue any administrative remedy provided in Chapter 1, Article 2, Divisions 3 through 10 inclusive, of this Code.

(b) Remedies under section 54.1013 are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.

§ 54.1014 Cost Recovery

(a) Reinspection Fee

Whenever the Director or designee reinspects a dwelling unit, structure, steel structure, adjacent properties, or premises to determine compliance with Division 10, this Code, or applicable state law, the Director may assess and collect fees, as set forth in Chapter 1, Article 3, Division 1 of this Code, against the responsible person to recover the fully ascertainable costs to the City for the following:

(1) dwelling unit, structure, or steel structure reinspections;

(2) lead-safe work practice reinspections;

(3) laboratory analysis; and

(4) sample collection fees.

(b) Fees, including but not limited to Reinspection Fees and increases to Building Permit fees and Demolition/Removal Permit fees, which are imposed for purposes of regulation, education, and enforcement under Division 10 shall be segregated and deposited into a separate account within a fund. All such fees and accrued interest thereon shall be used solely and exclusively for the purposes for which the fee was imposed.

(c) The assessment and collection of these fees shall not preclude the imposition of any administrative or judicial penalty or fine for violations of this Code or applicable state laws.

(d) Civil penalties collected pursuant to Division 10 and investigative costs associated with the enforcement action shall be deposited in the Code Enforcement Civil Penalty Fund established pursuant to section 13.0402 of this Code.

(e) A fee schedule shall be established and revised as necessary by the City Manager in accordance with Council Policy and City Administrative Regulations to reflect current costs. The fee schedule shall

§ 54.1015 Strict Liability Offenses

Violations of Division 10 shall be treated as strict liability offenses regardless of intent.

APPENDIX "A"

*INTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)				
Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Typical Applications **(Hazard Controls)**	Dust removal and any abatement or interim control method disturbing no more than 2 square feet of painted surface per room.	Any interim control or abatement method disturbing between 2 and 10 square feet of painted surface per room.	Same as Level 2.	Any interim control or abatement method disturbing more than 10 square feet per room.
Time Limit **Per Dwelling**	One work day.	One work day.	Five work days.	None.
Containment and Barrier System	Single layer of plastic sheeting on floor extending 5 feet beyond the perimeter of the treated area in all directions. No plastic sheeting on doorways is required, but a low physical barrier (furniture, wood planking) to prevent inadvertent access by resident is recommended.	Two layers of plastic on entire floor or isolate the work area. Plastic sheet with primitive airlock flap on all door- ways. Doors secured from inside the work area need not be sealed.	Two layers of plastic on entire floor or isolate the work area. Plastic sheet with primitive airlock flap on all door-ways to work areas. Doors secured from inside the work area need not be sealed. Overnight barrier should be locked or firmly secured.	Two layers of plastic on entire floor or isolate the work area. If entire unit is being treated, cleaned, and cleared, individual room door- ways need not be sealed. If only a few rooms are being treated, seal all doorways with primitive airlock flap to avoid cleaning entire dwelling. Doors secured from inside the work area need not be sealed.

APPENDIX "A"

*INTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)				
Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Warning Signs	Required at entry to room but not on building (unless exterior work is also under way).	Same as Level 1.	Posted at main and secondary entryways, if resident will not be present to answer the door.	Posted at building exterior near main and secondary entryways, if resident will not be present to answer the door.
Ventilation System	Dwelling ventilation system turned off, but vents need not be sealed with plastic if they are more than 5 feet away from the surface being treated. Negative pressure zones (with "negative air: machines) are not required, unless large supplies of fresh air must be admitted into the work area to control exposures to other hazardous substances (for example, solvent vapors).	Turned off and all vents in room sealed with plastic. Negative pressure zones (with "negative air" machines) are not required, unless large supplies of fresh air must be admitted into the work area to control exposure to other hazardous substances (for example, solvent vapors).	Same as Level 2.	Same as Level 2.

APPENDIX "A"

*INTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)				
Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Furniture	Left in place uncovered if furniture is more than 5 feet from working surface. If within 5 feet, furniture should be sealed with a single layer of plastic or moved for paint treatment. No covering is required for dust removal.	Removed from work area. Large items that cannot be moved can be sealed with a single layer of plastic sheeting and left in work area.	Same as Level 2.	Same as Level 2.

APPENDIX "A"

*INTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)				
Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Cleanup (See Chapter 14 of HUD Guidelines for further discussion of cleanup methods)	HEPA vacuum, wet wash, and HEPA vacuum all surfaces and floors extending 5 feet in all directions from the treated surface. For dust removal work alone, a HEPA vacuum and wet wash cycle is adequate (i.e., no second pass with a HEPA vacuum is needed). Also wet wash and HEPA vacuum floor in adjacent area(s) used as pathway to work area. Do not store *lead paint contaminants* inside dwelling overnight; transfer to a locked secure area at the end of each day.	HEPA vacuum, wet wash, and HEPA vacuum *all* surfaces in room. Also wet wash and HEPA vacuum floor in adjacent area(s) used as pathway to work area. Do not store *lead paint contaminants* inside dwelling overnight; use a secure locked area.	Remove top layer of plastic from floor and discard. Keep bottom layer of plastic on floor for use on the next day. HEPA vacuum, wet wash, and HEPA vacuum *all* surfaces in room. Also wet wash and HEPA vacuum floor in adjacent area(s) used as pathway to work area. Do not store *lead paint contaminants* inside dwelling overnight; use a secure locked area.	Full HEPA vacuum, wet wash, and HEPA vacuum cycle, as detailed in Chapter 14 of HUD Guidelines.

APPENDIX "A"

*INTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)				
Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Clearance Inspection	Visual Clearance only	*Clearance inspection* if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.	*Clearance inspection* if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.	*Clearance inspection* if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.

* Worksite preparation levels for floor sanding and abrasive blasting on surfaces that contain *lead paint* or *presumed lead-based paint* are not included in this table. Work shall follow the *HUD Guidelines* chapter 8, section VII.

Note: Primitive air locks are constructed using two sheets of plastic. The first one is taped on the top, the floor, and two sides of doorway. Next, cut a slit 6 feet high down the middle of the plastic; do not cut the slit all the way down to the floor. Tape the second sheet of plastic across the top of the door only, so that it acts as a flap. The flap should open *into* the work area.

*EXTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)			
Description	**Level 1**	**Level 2**	**Level 3**
Typical Applications	Any interim control or abatement method disturbing less than 10 square feet of exterior painted surface per dwelling. Also includes soil control work.	Any interim control or abatement method disturbing between 10 to 50 square feet of exterior painted surface per dwelling. Also includes soil control work.	Any interim control or abatement method disturbing more than 50 square feet of exterior painted surface per dwelling. Also includes soil control work.
Time Limit Per Dwelling	One day.	None.	None.

APPENDIX "A"

*EXTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)			
Description	**Level 1**	**Level 2**	**Level 3**
Containment and Barrier System	One layer of plastic on ground extending 10 feet beyond the perimeter of working surfaces. Extend plastic further if necessary to collect paint chips and associated debris. Do not anchor ladder feet on top of plastic (Puncture the plastic to anchor ladders securely to ground). For all other exterior plastic surfaces, protect plastic with boards to prevent puncture from falling debris, nails, etc., if necessary. Raise edges of plastic to create a basin to prevent contaminated runoff in the event of unexpected precipitation. Secure plastic to side of building with tape or other anchoring system (no gaps between plastic and building). Weight all plastic sheets down with two-by-fours or similar objects. Keep all windows within 20 feet of working surfaces closed, including windows of adjacent structures.	Same as Level 1.	Same as Level 1.
Playground Equipment, Toys, Sandbox	Remove all movable items to a 20-foot distance from working surfaces. Items that cannot be readily moved to a 20-foot distance can be sealed with taped plastic sheeting.	Same as Level 1.	Same as Level 1.

APPENDIX "A"

*EXTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)			
Description	**Level 1**	**Level 2**	**Level 3**
Security	Erect temporary fencing or barrier tape at a 20-foot perimeter around working surfaces (or less if distance to next building or sidewalk is less than 20 feet). If an entryway is within 10 feet of working surfaces, require use of alternative entryway. If practical install vertical containment to prevent exposure. Use a locked dumpster, covered truck, or locked room to store *lead paint contaminants* before disposal.	Same as Level 1.	Same as Level 1.
Signs	Post warning signs on the building and at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet).	Same as Level 1.	Same as Level 1.
Weather	Do not conduct work if wind speeds are greater than 20 miles per hour or if paint chips and/or associated debris are blown off containment. Work must stop and cleanup must occur before rain begins.	Same as Level 1.	Same as Level 1.

APPENDIX "A"

***EXTERIOR WORKSITE PREPARATION LEVELS (NOT INCLUDING WINDOWS)**			
Description	**Level 1**	**Level 2**	**Level 3**
Cleanup (See Chapter 14 of HUD Guidelines)	Do not leave *lead paint contaminants* or plastic out overnight if work is not completed. Keep all *lead paint contaminants* in secured area until final disposal.	Same as Level 1.	Same as Level 1.
Porches	If dwelling is occupied, one lead-safe entryway must be made available to residents at all times. Do not treat front and rear porches at the same time if there is not a third doorway.	Same as Level 1.	Same as Level 1.
Clearance Inspection	Visual *Clearance Inspection*	*Clearance inspection* required if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.	*Clearance inspection* required if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.

* Worksite preparation levels for floor sanding and abrasive blasting on surfaces that contain *lead paint* or *presumed lead-based paint* are not included in this table. Work shall follow the *HUD Guidelines* chapter 8, section VII.

WINDOW TREATMENT OR REPLACEMENT WORKSITE PREPARATION	
Appropriate Applications	**Any Window Treatment or Replacement**
Time Limit Per Dwelling	None.
Containment and Barrier System	One layer of plastic on ground or floor extending 5 feet beyond the perimeter of window being treated/ replaced. Two layers of plastic taped to interior wall if working on window from outside; if working from the inside, tape two layers of plastic to exterior wall. If working from inside, implement a minimum interior Worksite Preparation Level 2. Children cannot be present in an interior room where plastic sheeting is located due to suffocation hazard. Do not anchor ladder feet on top of plastic (place a hard surface such as plywood under ladder). For all other exterior plastic surfaces, protect plastic with boards to prevent puncture from falling debris, nails, etc. (if necessary). Secure plastic to side of building with tape or other anchoring system (no gaps between plastic and building). Weigh all plastic sheets down with two-by-fours or similar objects. All windows in dwelling should be kept closed. All windows in adjacent dwellings that are closer than 20 feet to the work area should be kept closed.
Signs	Post warning signs on the building and at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet). If window is to be removed from inside, no exterior sign is necessary.
Security	Erect temporary fencing or barrier tape at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet). Use a locked dumpster, covered truck, or locked room to store *lead paint contaminants* before disposal.
Weather	Do not conduct work if wind speeds are greater than 20 miles per hour or if paint chips and/or associated debris are blown off containment. Work must stop and cleanup must occur before rain begins.
Playground Equipment, Toys, Sandbox	Remove from work area and adjacent areas. Remove all items to a 20-foot distance from dwelling. Large, unmovable items can be sealed with taped plastic sheeting.
Cleaning	If working from inside, HEPA vacuum, wet wash, and HEPA vacuum all interior surfaces within 10 feet of work area in all directions. If working from the exterior, no cleaning of the interior is needed, unless the containment is breached. Similarly, no cleaning is needed on the exterior if all work is done on the interior and the containment is not breached. If containment is breached, then cleaning on both sides of the window should be performed. No *lead paint contaminants* or plastic should be left out overnight if work is not completed. All *lead paint contaminants* must be kept in a secure area until final disposal.

WINDOW TREATMENT OR REPLACEMENT WORKSITE PREPARATION	
Appropriate Applications	**Any Window Treatment or Replacement**
Clearance Inspection	*Clearance inspection* required if work is performed from interior of *dwelling unit* and if it is *presumed lead-based paint* or testing determines *lead* levels are greater than 5000 ppm or 1.0 mg/cm^2.

Appendix 12

(1) Certified or interim certified individuals shall complete a minimum of seven contact hours of continuing education instruction every two years to be eligible to apply for certification or interim certification renewal.
(2) Certified individuals applying for renewal more than three years after the expiration date of the certificate or interim certificate shall retake the required CDPH-approved lead-related construction course and comply with section 35095(a)(3)(A), 35095(b) to be eligible to apply for certification renewal.

Note: Authority cited: Sections 105250, 124160 and 131200, Health and Safety Code. Reference: Sections 105250, 124160 and 131051, Health and Safety Code.

Article 14. Suspension or Revocation of Certification or Interim Certification.

§35097. Action to Suspend or Revoke Certification or Interim Certification.

(a) Certification or interim certification may be suspended or revoked by the Department for:
(1) Any false statement in the application;
(2) Violations of relevant local, state, or federal statutes or regulations;
(3) Misrepresentation, failure to disclose relevant facts, fraud, or issuance by mistake;
(4) Failure to comply with California Code of Regulations, Title 17, sections 36000 or 36100; or
(5) Failure to comply with any relevant regulation or order of the Department.

(b) Suspension or revocation and an appeal of any suspension or revocation shall be conducted in compliance with Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) Prior to suspension or revocation, a certified or interim certified individual shall be given an opportunity, except in the case of willful violation or threat to public health and safety, to remedy deficiencies that may result in suspension or revocation.
(1) The certified or interim certified individual shall be given a statement which includes the Department's findings, an explanation of what the certified or interim certified individual must do to comply with the regulations, and the time period in which the certified or interim certified individual shall act.
(2) The certified or interim certified individual must remedy the deficiencies within a reasonable time specified by the Department which shall be no more than 30 calendar days after the issuance date of the statement of deficiencies.

(d) Any individual whose certification or interim certification has been suspended or revoked shall not be eligible to perform activities which require CDPH lead certification.

Note: Authority cited: Sections 105250, 124160 and 131200, Health and Safety Code. Reference: Sections 105250, 124160 and 131051, Health and Safety Code.

Article 15. Enforcement.

§35099. Funding for Enforcement.

The amount of $100,000.00 shall be allocated to the Division of Occupational Safety and Health annually to be expended for the division's costs of enforcing compliance with training and certification requirements.

Note: Authority cited: Sections 105250, 124160 and 131200, Health and Safety Code. Reference: Sections 105250, 124160 and 131051, Health and Safety Code.

Article 16. Work Practice Standards.

§36000. Requirements for Lead Hazard Evaluation for Public and Residential Buildings.

(a) Lead hazard evaluation for public and residential buildings shall:

(1) Be conducted only by a certified lead inspector/assessor or as specified in Subsections (c)(3)(A) or (d). The certified lead inspector/assessor, certified lead project monitor, and certified lead sampling technician conducting lead hazard evaluation shall not conduct abatement on the same structure.
(2) Be conducted in a manner in which paint, dust, and soil is tested in accordance with the procedures described in Chapter 5: Risk Assessment, section II (A)(B)(C)(D), "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995 and Chapter 7: Lead-Based Paint Inspection, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, 1997 Revision, and which provides quantitative results.
(3) Be conducted in a manner in which paint, dust, and soil samples taken for laboratory analysis are analyzed by a laboratory that is recognized by the U.S. Environmental Protection Agency pursuant to United States Code, Title 15, Section 2685(b).
(4) Be documented in a lead hazard evaluation report which shall include a completed California Department of Public Health (CDPH) Form 8552 (6/07) and the following attachments:
(A) A foundation diagram, site map, or sketch of the structure, indicating the specific locations of each lead hazard or presence of lead-based paint, and results of the visual inspection, if applicable;
(B) A summary of each testing method, device, and sampling procedure used;
(C) A description of testing and sampling locations; and
(D) The results of laboratory analysis on collected samples, if applicable, including the name, address, and telephone number of each laboratory.

(b) The certified lead inspector/assessor conducting the lead hazard evaluation for a public or residential building shall retain the original completed copy of CDPH Form 8552 (6/07) and attachments for a minimum of three years and distribute copies as follows;
(1) A copy of the completed CDPH Form 8552 (6/07) and attachments to the person who ordered the lead hazard evaluation;
(2) A copy of the completed CDPH Form 8552 (6/07) to the Department within thirty days of completion; and
(3) A copy of the attachments to the Department upon request.

(c) In addition to the requirements specified in subsections (a) and (b):
(1) A lead inspection shall be conducted in accordance with procedures described in Chapter 7: Lead-Based Paint Inspection, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, 1997 Revision.
(2) A risk assessment shall be conducted in accordance with procedures described in Chapter 5: Risk Assessment, section II (A), (B), (C), and (D), "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995 and shall include a written description of abatement options for each identified lead hazard, a suggested prioritization for addressing each lead hazard, and recommendations for a maintenance and monitoring schedule.
(3) A clearance inspection shall be conducted:
(A) By a certified lead inspector/assessor or a certified lead project monitor.
(B) In accordance with procedures such as described in Chapter 15: Clearance, sections II-VI, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995.

(d) A sampling technician shall only conduct visual inspections and sample or test soil, dust, and paint provided an inspector/assessor identifies the specific locations where soil, dust, and paint is sampled or tested, interprets the results, and complies with the record keeping and reporting requirements in section 36000(b). A sampling technician is prohibited from conducting visual inspections, or sampling or testing paint, dust, and soil, if those activities are:
(1) conducted as an "appropriate case management" activity, as defined in Health and Safety Code section 105280(a); or
(2) conducted in a structure that is inhabited by an individual with a blood lead level equal to or greater than 10 micrograms per deciliter.

(e) Individuals operating an X-ray Fluorescence (XRF) analyzer to conduct lead hazard evaluation shall comply with regulatory requirements specified in Title 17, California Code of Regulations, division 1, chapter 5, subchapter 4, such as obtaining a license and completing an additional eight hours of training.

Note: Authority cited: Sections 105250(a) and (b),124160(b), 124165 and 131200, Health and Safety Code. Reference: Sections 100170, 105250(a) and (b), 124160(b), 124165 and 131051, Health and Safety Code; Sections 17200, 17203 and 17205, Business and Professions Code; and Sections 11180 and 11181, Government Code.

§36050. Lead-Safe Work Practices.

(a) Any individual conducting lead activities, excluding lead hazard evaluation, shall:
  (1) Use containment;
  (2) Ensure that the work area has no visible dust or debris following the completion of a project;
  (3) Demonstrate compliance with (a)(1) and (a)(2) to the Department or local enforcement agency, as defined in section 105251 of the Health and Safety Code, upon request.

Note: Authority cited: Sections 105250, 105255, 105256, 124160, 124165 and 131200, Health and Safety Code. Reference: Sections 105250, 105251, 105255, 105256, 124160, 124165 and 131051, Health and Safety Code.

§36100. Requirements for Abatement for Public and Residential Buildings.

(a) Abatement for public and residential buildings which is designed to reduce lead paint or lead hazards for a minimum of twenty years shall be conducted:
  (1) Only by a certified lead supervisor or a certified lead worker. A certified lead supervisor shall be onsite during all work site preparation and during the post-abatement cleanup of work areas. At all other times when abatement is conducted, the certified lead supervisor shall be onsite or available by telephone, pager or answering service, and able to be present at the work area in no more than two hours.
  (2) According to the procedures specified in Chapter 12: Abatement, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995.
  (3) Using containment and in a manner which does not result in contamination of non-work areas with lead-contaminated dust, lead-contaminated soil, or lead-based paint debris.
  (4) In accordance with an abatement plan prepared by a certified lead supervisor, certified lead project monitor, or certified lead project designer which shall:
    (A) Include the following information:
      1. A detailed written description of the measures and management procedures, including containment, that will be utilized during abatement to prevent exposure to lead hazards;
      2. A detailed written description of abatement, including methods of abatement and locations of rooms and components where abatement is planned;
      3. A recommended schedule for re-inspection, based upon the type of abatement; and
      4. Instructions on how to maintain potential lead hazards in safe condition.
    (B) Be retained and made available to the Department upon request for a period of at least three years by the preparer.
  (5) After notification is posted and delivered pursuant to subsection (c), the certified lead supervisor conducting abatement shall retain records of notification for at least three years.
  (6) In a manner in which after abatement is completed, a clearance inspection is conducted in accordance with Section 36000(a) and Section 36000(c)(3) of this Chapter.

(b) Abatement for public and residential buildings which is designed to reduce lead paint or lead hazards for less than twenty years shall be conducted:
  (1) According to procedures specified in Chapter 11: Interim Controls, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995.
  (2) Using containment and in a manner which does not result in contamination of non-work areas with lead-contaminated dust, lead-contaminated soil, or lead-based paint debris.