

Welcome

Action Item – Let's Check In

- **Students please come up**
 1. **Sign the Meeting Sign-in Sheet**
 2. **See the Instructor to verify your name, address, email and DOB on the electronic spreadsheet.** (NOTE: This information will be used to create your certificate and your certificate will be emailed to your email address)
 3. **See the Instructor to take your photo.** (NOTE: The EPA requires nothing on top of your head including hats, glasses, bandanas, etc.)



Welcome

Electronics Use Reminder

- **Use of Electronics**
 - **Silence phones and other electronic equipment**
 - **Text, emails, and phone calls should wait until break if possible.**
 - **ZOTA Professional Training prohibits electronic recording including photographs, video, audio or any other type of recording in any ZOTA Professional Training class.**



Lead Safety for Renovation, Repair, and Painting

- **Welcome and Introductions**
 - **Please tell the class:**
Your name, the company you work for, and what you do.
- **Module Overview:**
 - **Course agenda**
 - **Course manual**
 - **You will learn...**
 - **This course...**



Course Agenda

- Introduction and welcome
- **Module 1: Why Should I Be Concerned About Lead Paint?**
- **Module 2: Regulations**
- Break
- **Module 3: Before Beginning Work**
- **Module 4: Contain Dust During Work**
- Lunch
- **Module 5: During the Work**
- Break
- **Module 6: Cleaning Activities and Checking Your Work**
- **Module 7: Recordkeeping**
- Break
- **Module 8: Training Non-Certified Renovation Workers**
- Review
- Test



Course Timeline

Overview of Proposed Schedule (Lesson Plan 2 - Modified)		
Registration and Introduction (Includes Taking Pictures of Students)	15 minute lecture/discussion	8:00 – 8:15
Module 1: Why Should I Be Concerned About Lead Paint?	15 minute lecture 5 minute exercise	8:15 – 8:35
Module 2: Regulations	40 minute lecture	8:35 – 9:15
<i>Break</i>	10 minutes	9:15 – 9:25
Module 3: Before Beginning Work	25 minute lecture	9:25 – 9:50
Module 4: Contain Dust During Work	45 minute lecture	9:50 – 10:35
Module 5: During the Work	40 minute lecture	10:35 – 11:15
<i>Lunch</i>	1 hour	11:15 – 12:15
Module 6: Cleaning Activities and Checking Your Work	40 minute lecture	12:15 – 12:55
Module 7: Recordkeeping	20 minute lecture	12:55 -1:15
Module 8: Training Non-Certified Renovation Workers	40 minutes	1:15 – 1:55
<i>Break</i>	15 minutes	1:55 – 2:10
Hands-on Activities	130 minutes exercises	2:10 – 4:20
Review	10 minutes	4:20 – 4:30
Test	30 minutes	4:30 – 5:00

Training Manual Overview

- **Eight modules**
- **Interactive and hands-on exercises, in 11 Skill Sets**
- **Key appendices**
 - **Appendix 2 - U.S. Department of Housing and Urban Development (HUD) Requirements**
 - **Appendix 3 - *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools***
 - **Appendix 4 - *Small Entity Compliance Guide to Renovate Right***
 - **Appendix 5 - *Steps to LEAD SAFE Renovation, Repair, and Painting***
 - **Appendix 6 - Hands-on Exercises**
 - **Appendix 9 – Paint Chip Sample Collection Guide**



You Will Learn...

- **Why lead-based paint is a problem during renovations.**
- **What the EPA and HUD regulations require of Certified Firms and Certified Renovators.**
- **How to determine if lead-based paint affects work.**
- **How to begin the work.**
- **How to set up the work area to contain dust.**
- **How to work in a lead-safe manner.**
- **How to clean the work area and verify cleanliness.**
- **How to dispose of waste safely.**
- **How to document your work.**



This Course...

- Meets EPA and HUD requirements.
- Produces EPA Certified Renovators.
- Demonstrates your commitment to safety.

BUT,

- Is not an abatement course.
- Does not satisfy OSHA training requirements.
- May not satisfy state, local or tribal training requirements.



Module 1: Why Should I be Concerned about Lead Paint?

Overview

- What is lead-based paint?
- What health risks and health effects are related to lead exposure?
- Why is lead-contaminated dust a problem?



What Is Lead-Based Paint?

- **Federal standards define lead-based paint as:**
 - Any paint or surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or more than 0.5 percent by weight.
 - Some states and localities regulate paint with lower concentrations of lead.
 - It is the primary source of lead-contaminated dust in housing.
- **Why was lead used in paint?**
 - Lead was added for color and durability.
- **Lead-based paint was banned in 1978.**



Health Risks of Lead

- **Very hazardous to children.**
 - Damages the brain and central nervous system; can cause decreased intelligence, reading and learning difficulties, behavioral problems, and hyperactivity.
 - Damage can be irreversible, affecting children throughout their lives.
- **Hazardous to pregnant women.**
 - Damage to the fetus.
- **Also hazardous to workers and other adults.**
 - High blood pressure.
 - Loss of sex drive and/or capability.
 - Physical fatigue.
- **Lead exposure causes permanent damage.**



Symptoms Of Lead Poisoning are Not Always Obvious

- Symptoms are easily misinterpreted by medical personnel, thus delaying effective treatment and increasing the likelihood of permanent physical and mental damage.
- Only sure way to determine lead poisoning is to take a blood lead level (BLL) test.



Why are Dust and Debris a Problem?

- **Renovation activities that disturb lead-based paint create dust and debris. Debris becomes dust.**
- **Lead-contaminated dust is poisonous.**
- **Very small amounts of lead-contaminated dust can poison children and adults.**
 - **Children swallow dust during ordinary play activities.**
 - **Adults swallow or breathe dust during work activities.**
- **Workers can bring lead-contaminated dust home and poison their families.**



A Little Dust Goes a Long Way

- You can't see it.
- It's hard to sweep up.
- And, it travels.

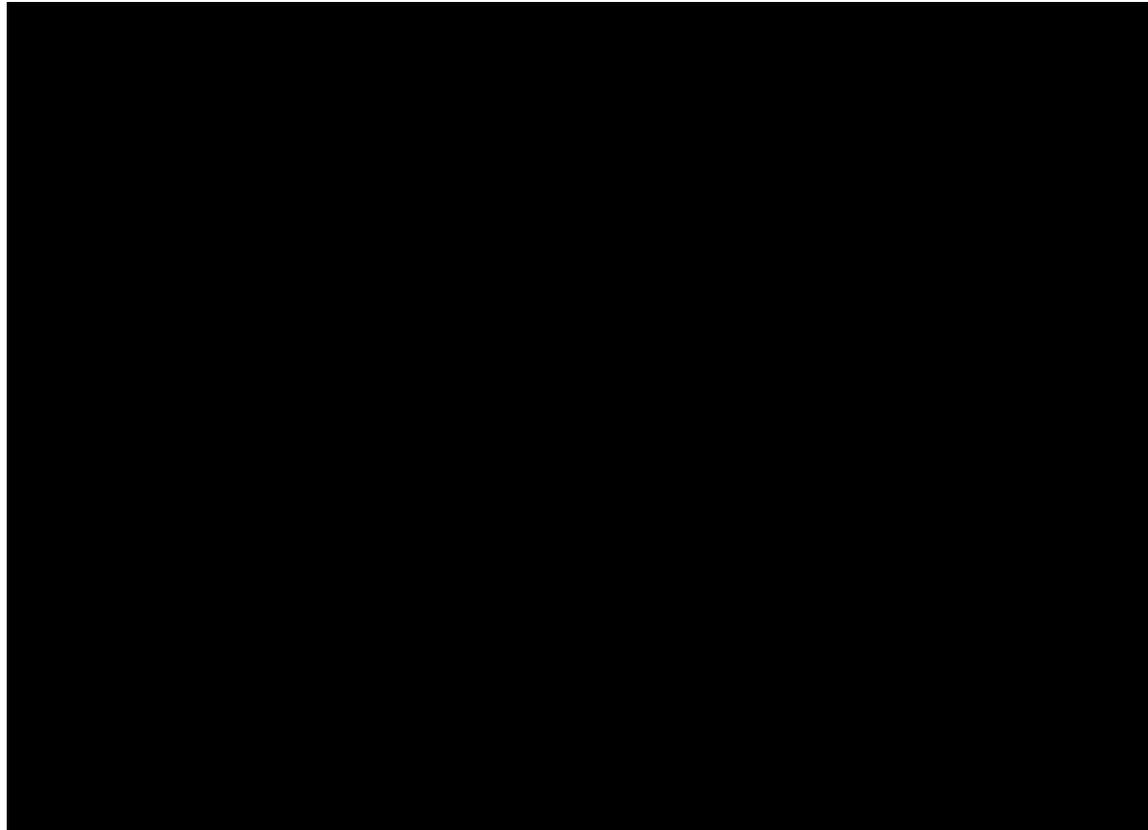
One gram of lead-based paint can contaminate a large area!



Video Clip of a Contractor Who Poisoned His Own Kids



Video Clip of Parent of a Child Poisoned by Renovation



Now You Know...

- **What lead-based paint is and the adverse health effects of lead.**
- **Dust is the problem.**
- **Lead poisoning is hard to spot and the effects can be permanent.**
- **Kids are most at risk for lead poisoning.**
- **Lead poisoning is preventable.**



Module 2: Regulations

- **U.S. Environmental Protection Agency (EPA):**
 - Established accredited training and certification programs for workers, supervisors, inspectors and risk assessors conducting evaluation or abatement of lead-based paint.
 - Established requirements for pre-renovation education.
 - Promulgated the Renovation, Repair, and Painting Program Final Rule (RRP Rule).
- **U.S. Department of Housing and Urban Development (HUD):**
 - Established actions in Federally-assisted target housing.
 - Established Federal grant programs.
 - Established guidelines for lead-based paint evaluation and control; established the Lead Safe Housing Rule.
- **U.S. Occupational Safety and Health Administration (OSHA):**
 - Established worker protection standards.



The RRP Rule

- Addresses activities that disturb lead-based paint in pre-1978 target housing and child-occupied facilities.

Target Housing: *All housing except zero bedroom dwellings and housing designated for the elderly or disabled*

Child-Occupied Facilities: *Non-residential building visited regularly by the same child under six years of age on at least 2 days per week and at least 6 hours per week and at least 60 hours per year.*

•It requires:

- Renovators to be certified through training.
- Firms to be certified.
- Training providers to be accredited.
- Lead-safe work practices during renovations.
- Pre-renovation education in target housing and child-occupied facilities.



The RRP Rule

- **Firms working in pre-1978 homes and child-occupied facilities must be certified and use lead-safe work practices during renovations.**
- **EPA may authorize states, territories and tribes to enforce the Rule. Current authorized locations include:**
 - Alabama, Delaware, Georgia, Iowa, Kansas, Massachusetts, Mississippi, North Carolina, Oklahoma, Oregon, Rhode Island, Utah, Washington State, Wisconsin, and the Bois Forte Tribe in Minnesota.**



The RRP Rule: Exclusions

- **Renovation activities where affected components do not contain lead-based paint.**
- **Emergency renovations: *Danger to life or structure (requires cleanup and cleaning verification after emergency is over).***
- **Minor repair and maintenance activities: *(Work that disturbs 6 sq ft or less per room interior or 20 sq ft or less exterior (exclusion does not apply to window replacement, demolition or activities involving prohibited practices).***
- **Renovations performed by homeowners in their own homes.**



The RRP Rule: Firm Certification

- All covered renovations must be performed by **Certified Firms**, using **Certified Renovators** and other trained workers.
- To become certified, firms must submit an application, and pay a fee, to EPA.
- Certifications will be good for 5 years.
- Certification allows the firm to perform renovations in any non-authorized state or Indian tribal area.



The RRP Rule: Firm Responsibilities

- **Ensure overall compliance with the RRP Rule.**
- **Ensure that all renovation personnel are Certified Renovators or have been trained on-the-job by Certified Renovators.**
- **Assign a Certified Renovator to all jobs.**
- **Meet pre-renovation education requirements.**
- **Meet recordkeeping requirements.**



The RRP Rule: Individual Certification

- To become a Certified Renovator, an individual must take an EPA-approved 8-hour training course from an EPA-accredited training provider.
- The course completion certificate serves to certify renovators (no application to EPA is required).
- Refresher training is required every 5 years.
- Workers do not need certification so long as on-the-job training is received from a Certified Renovator and the work is not HUD-regulated.



The RRP Rule: Certified Renovator Responsibilities

- Perform work and direct lead-safe work practices.
- Provide on-the-job training to non-certified workers.
- Keep copy of the initial and/or refresher training certificates onsite.
- When requested, use EPA-recognized test kits or, alternatively, collect paint chip samples for laboratory lead analysis to identify lead-based paint.
- Be physically present while posting signs, containing work areas, and cleaning work areas.
- Be available by telephone when off-site.
- Maintain the containment to keep dust and debris within the work area.
- Implement the cleaning verification procedure.
- Prepare and maintain required records.



The RRP Rule: Work Practice Standards

The Renovation, Repair, and Painting Final Rule covers setup of the work area, prohibited work practices, cleanup and the cleaning verification procedure.

- **Setup practices, such as posting signs and containing the work area, will be covered in Module 4.**
- **Prohibited practices and dust reduction suggestions will be covered in Module 5.**
- **Cleanup practices and cleaning verification procedures will be covered in Module 6.**
- **Recordkeeping will be covered in Module 7.**



The RRP Rule: Enforcement

- EPA may suspend, revoke, or modify a firm's certification if the Certified Firm or Certified Renovator is found to be in non-compliance.
- Those firms found to be non-compliant may be liable for civil penalties of up to \$37,500 for each violation.
- Those firms who knowingly or willfully violate this regulation may be subject to fines of up to an additional \$37,500 per violation, or imprisonment, or both.



HUD's Lead Safe Housing Rule

- Covers federally-owned or -assisted target HOUSING and federally-owned target housing being sold. Renovators should ask if the housing receives financial assistance.
 - If yes, the renovator should ask the owner to find out if the assistance is federal assistance.
- HUD's rule has evaluation and control requirements based on type of assistance:
 - Visual assessment, lead paint inspection;
 - Paint stabilization, interim control, abatement;
 - Ongoing lead-based paint maintenance.



HUD's Lead Safe Housing Rule: Safe Work Practices

- **HUD's rule requires lead safe work practices for:**
 - Paint stabilization
 - Interim control of identified lead-based paint hazards
 - Rehabilitation (renovation)
 - Standard treatments
 - Ongoing lead-based paint maintenance
- HUD's de minimis level is smaller than the RRP Rule's minor repair and maintenance level

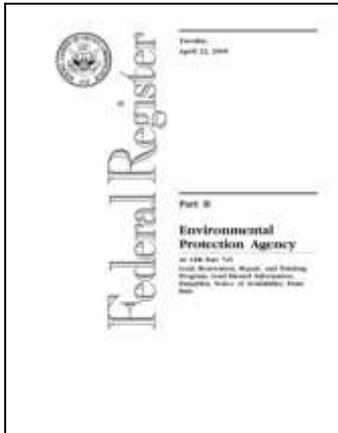


HUD's Rule Addresses:

- **Training (usually classroom training for workers)**
- **Occupant protection and worksite preparation**
- **Prohibited methods (3 in addition to RRP Rule's)**
- **De minimis levels (smaller than RRP Rule's)**
- **Lead safe work practices**
- **Specialized cleaning**
- **Clearance testing (covered in Module 6)**
- **Occupant notification (within 15 days)**



Know the EPA and HUD Rules!



To obtain a copy of the regulations contact the National Lead Information Center at 1-800-424-LEAD.

You may also download the rules and other information from the following websites:

- www.epa.gov/lead
- www.hud.gov/offices/lead



State and Local Regulations

- **States and localities may have different regulations than EPA and HUD for renovations in target housing.**
- **Check with your state and local housing and environmental agencies to obtain information about such requirements.**
- **Appendix 7 is reserved for copies or summaries of state and local regulations.**



State and Local Regulations with Known Differences

- **EPA Authorized State and Territories**
 - Many have differences with EPA
- **Connecticut – Department of Public Health**
 - EPA Recognized Lead Test Kits not recognized in CT
 - Renovator not approved to conduct Paint Chip Sampling
- **Minnesota – Department of Health**
 - Renovator not approved to conduct Paint Chip Sampling



Now You Know...

- **That the EPA Renovation, Repair, and Painting Program Final Rule (RRP Rule) applies to renovation in housing and child-occupied facilities built before 1978 that contain lead-based paint.**
- **To always take into account the requirements and responsibilities of certification for Certified Firms and Certified Renovators, and to re-certify every 5 years.**
- **To comply with setup of the work area, prohibited work practices, cleanup and the cleaning verification procedure requirements in the Rule.**
- **To determine whether your renovation job is regulated by EPA, HUD, both, or neither.**



Module 3: Before Beginning Work

Overview

This module teaches you:

- **To educate owners and residents.**
- **That the use of lead-based paint was widespread.**
- **To determine if lead-based paint is not present.**
- **To use EPA-recognized test kits to check for lead-based paint.**
- **Learn methods for collecting paint chip samples for laboratory lead analysis.**
- **How to decide which rule(s) apply.**



Educate Owners and Residents

The Pre-Renovation Education Rule:

- Requires Renovation Firms to provide the *Renovate Right* pamphlet to owners/residents prior to renovation activities in pre-1978 housing and child-occupied facilities.
- Specifies requirements for educating residents/occupants and delivering the *Renovate Right* pamphlet that vary by type of property and the area being renovated.

Under the RRP Rule, Certified Firms MUST:

- Give homeowners/residents and child-occupied facility owners/adult representatives copies of the *Renovate Right* pamphlet.
- Let parents/guardians of children using a child-occupied facility know about the renovation and how to get a copy of the *Renovate Right* pamphlet.
- Get confirmation of receipt of the *Renovate Right* pamphlet from owners, or evidence that the pamphlet was delivered to tenants/residents.
- Keep all records for at least 3 years.



How Widespread is Lead-Based Paint in Housing?

Year House Was Built	Percent of Houses with Lead Based Paint
Before 1940	87 percent
1940-1959	69 percent
1960-1978	24 percent

How to Determine if Lead-Based Paint is Present

- Paint testing must be performed prior to renovation on all surfaces to be affected by the work, or you must presume the paint is lead-based. Any testing must be performed by the appropriate qualified professional.

Type of Paint Testing for Renovations	Who can do the testing?
EPA-recognized test kits	Certified Renovators
X-Ray Fluorescence instruments	Certified lead-based paint inspectors or risk assessors
Paint chip sampling	Certified Renovators, Inspector or Risk Assessor



Using EPA-Recognized Test Kits to Check for Lead-Based Paint

- Only use EPA-recognized test kits on substrates approved for the kit.
- Submit a testing report of results from use of an EPA-recognized test kit to the client as soon as possible, but no later than 30 days after completing the renovation.

Test Kit Hands-on:

Completed with all skillsets in afternoon

Purpose: The purpose of this hands-on exercise is to teach Certified Renovators how to correctly use EPA-recognized test kits to determine if lead-based paint is present on components and surfaces affected by renovation work.



Paint Chip Sample Collection Method

- This practice is used to collect samples for the determination of lead on an area basis (milligrams of lead) or concentration basis (mass percent)
- This is an alternative method for Certified Renovators to check for lead-based paint.
- Once collected, all paint chip samples must be submitted to an entity recognized by NLLAP for lead analysis.



Steps to Obtain Paint Chip Samples

1. Record test location information
2. Mark collection area
3. Set up a paint collection tray
4. Remove the paint
5. Clean all cutting tools
6. Transfer sample to the collection container
7. Check documentation for completeness on the Paint Chip Sample Collection Form



Paint Chip Sample Collection

Hands-on

Completed with all skillsets in afternoon

Purpose: The purpose of this hands-on exercise is to teach Certified Renovators how to correctly collect paint chip samples from components affected by renovation.

Using Decision Logic Charts

- Using the following pages, you will practice use of the decision logic charts found in the *Small Entity Compliance Guide to Renovate Right*.
- The decision logic charts will assist you in making decisions regarding how the EPA RRP Rule applies to your work.
- Determine if the property is Federally-assisted and if it is, then determine what to do next.



Now You Know...

To properly plan a renovation, you must:

- Educate owners and residents.**
- Determine if lead-based paint is present.**
- Determine what requirements from the EPA and HUD Rules apply to your renovation activities.**



Module 4: Contain Dust During Work

Overview

- **What is containment?**
- **Containing dust for interior activities.**
- **Containing dust for exterior activities.**

What Is Containment?

- **“Containment” is a system of temporary barriers used to isolate a work area so that no dust or debris escapes while the renovation is being performed.**
- **Benefits of containment.**
 - **Protects residents and workers.**
 - **Prevents spread of dust to rest of house/building or neighboring properties.**
 - **Easier cleaning at the end of the job.**
- **Containment is required.**



Keep Dust Within the Containment

- Consider how much dust the renovation will generate.
- Containment design is a function of the work practices to be used and the expected amount of dust to be generated during the renovation.
- Plan the size and configuration of containment to keep the generated dust within containment.
- You are responsible for making sure dust does not migrate out of containment.



Vertical Containment

- **Vertical barrier of plastic sheeting over a rigid frame.**
- **Required for exterior jobs close to property lines.**
- **Can be used to minimize floor or ground containment needed.**

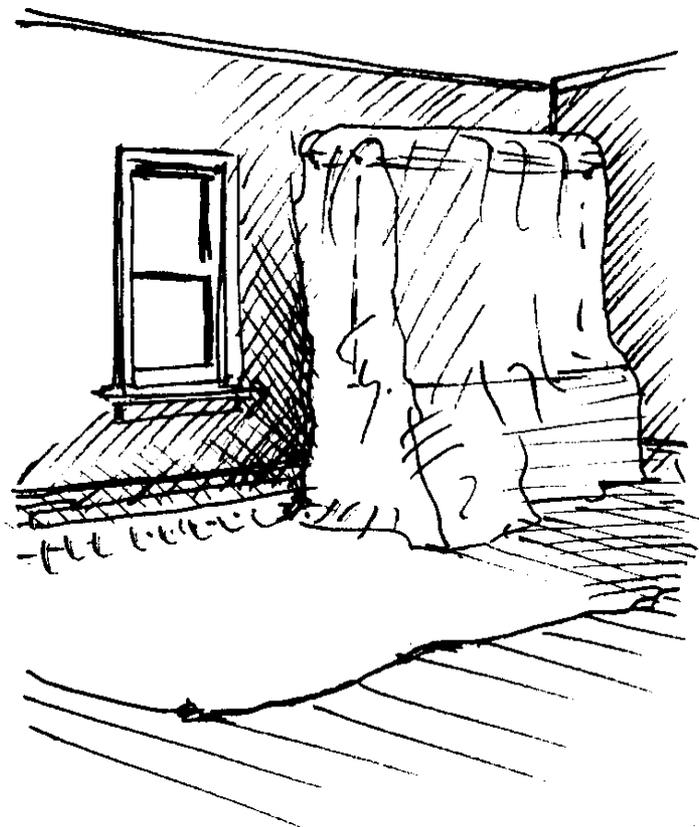


Interior Containment: Limit Access and Post Signs



- Notify residents to stay away from the work area.
- Do not allow residents or pets near the work area.
- Do not allow eating, drinking, or smoking in the work area.
- Post warning signs.

Interior Containment: Remove or Cover Belongings



- Remove belongings.
- Cover immovable objects in protective sheeting, including:
 - Furniture;
 - Carpet; and,
 - Lamps and other fixtures.
- Seal edges and seams.

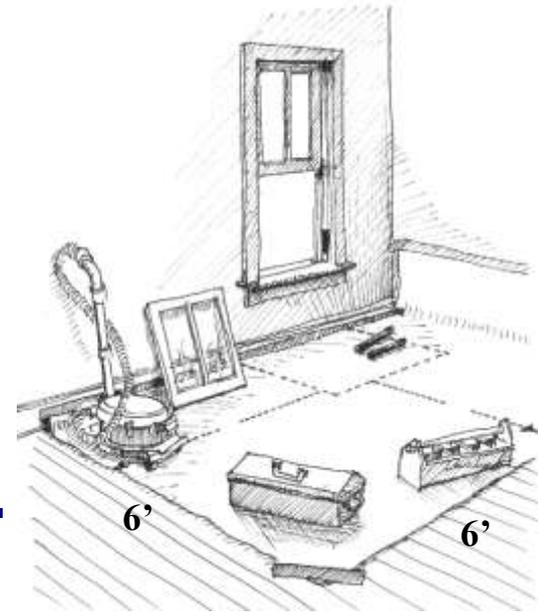
Interior Containment: Cover Floors

Required:

- Cover all work area floors with plastic sheeting.
- Cover floors a minimum of 6 feet in all directions around the paint being disturbed.

Recommended:

- Lay plastic sheeting in high traffic areas.
- Take special precautions for carpets.
- Use a disposable tack pad at the edge of protective sheeting.
- If using chemical stripper, add 2nd plastic layer.



Interior Containment: Close Windows, Doors, HVAC

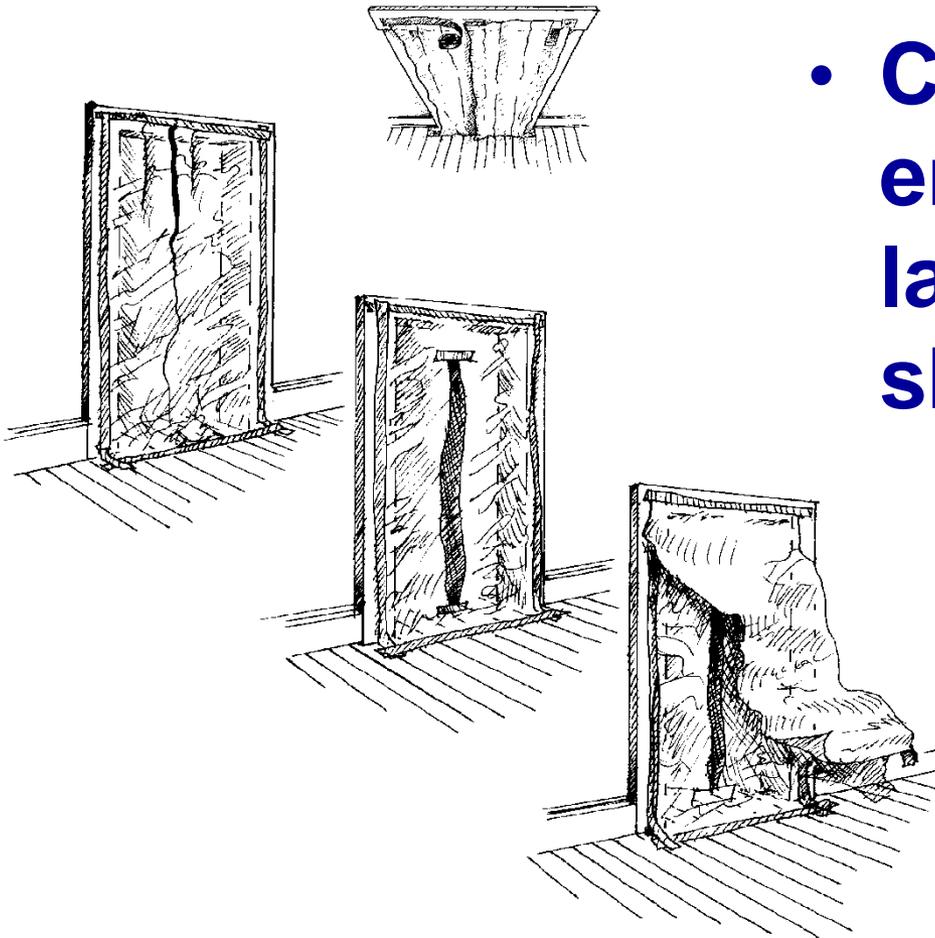
Depending on what work is to be done:

- **Close all windows in the work area.**
- **Close and seal all doors in the work area.**
- **Close and seal all HVAC vents in the work area.**
- **Turn off the HVAC unit (recommended).**



Interior Containment: Work Area Entry Doorway

- Cover work area entry doors with two layers of protective sheeting.



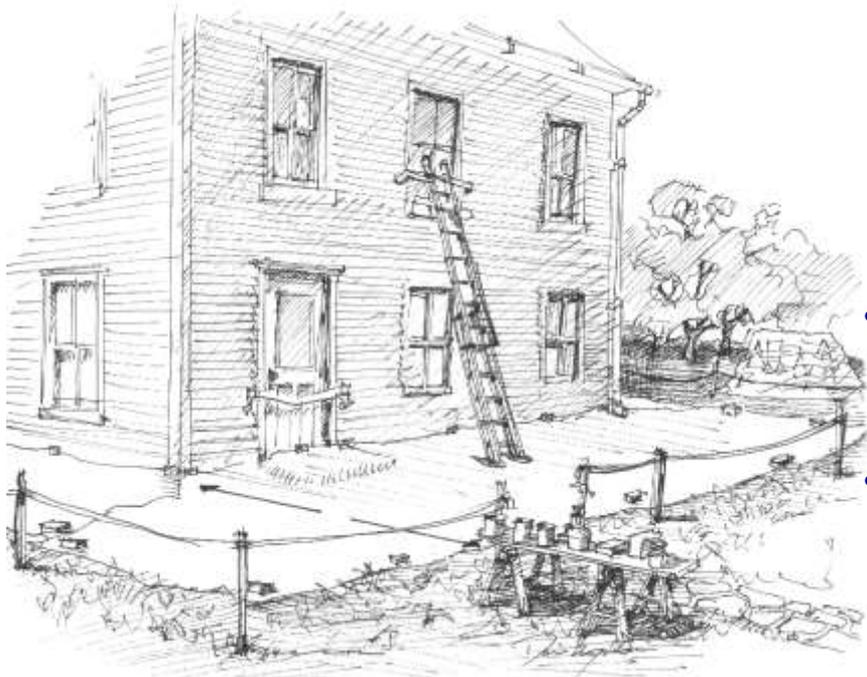
Overview of Interior Containment Steps

The goal of these interior containment practices is to prevent dust and debris from escaping the work area.

- Limit access and post signs.
- Remove (preferred) or cover belongings.
- Cover floors.
- Close windows, close and seal doors and HVAC system.
- Construct a work area entry doorway.

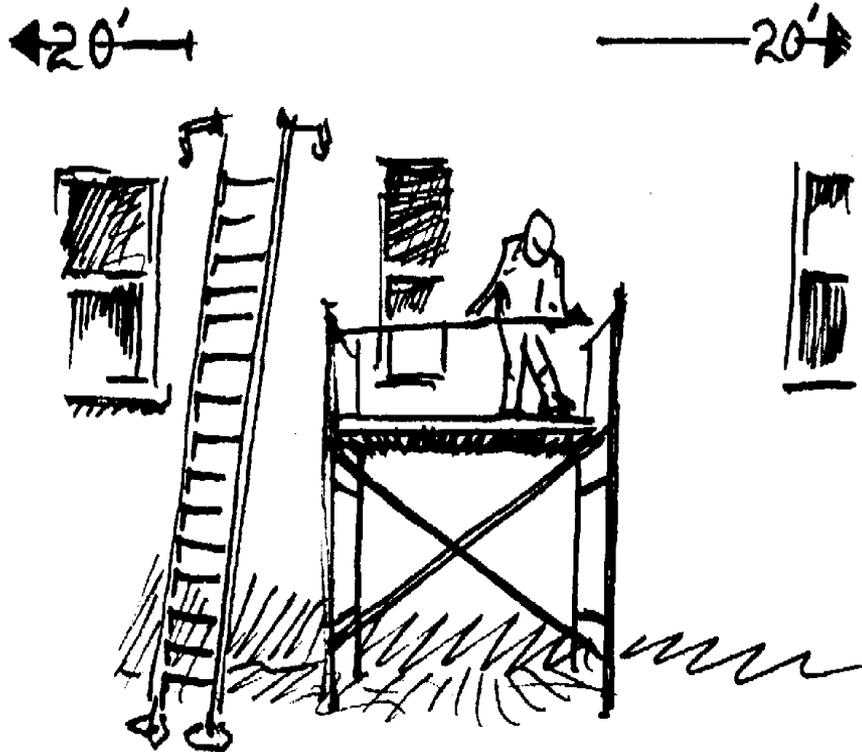


Exterior Containment: Establish the Work Area



- **Cover the ground with protective sheeting.**
 - If space permits, extend a minimum of 10 feet from the work area.
 - Pay special attention and cover nearby vegetable gardens and children's play areas.
- **Limit access, place signs.**
 - Establish a 20 foot perimeter around the work area if space permits.
- **Erect a vertical containment.**
 - Vertical containment must be erected if renovations occur within 10 feet of the property line

Exterior Containment: Close Windows and Doors



- Close all nearby doors and windows that are within 20 feet of the work area.
- Use two layers of plastic sheeting on doors in the work area that are being used during the job.

Exterior Containment: Things to Consider

- **Some jobs may need additional steps to prevent the spread of dust.**
 - Extend work area.
 - Avoid working in windy conditions, where possible.
 - More frequent clean-up of work area.
 - Repair any damage to containment promptly.



Overview of Exterior Containment Steps

- **Establish the work area.**
- **Close all windows and doors.**
- **Establish, as necessary, additional containment to prevent spread of dust to adjacent properties.**
- **Erect Vertical Containment for any exterior renovations within 10 feet of the property line.**



Hands-on Exercises: Interior and Exterior Containment

Completed with all skillsets in afternoon

Practice the following Skills:

Skill Set #2: Setting up Barriers, Signs and Flapped Entry Doors.

Skill Set #3: Cover and Move Furniture.

Skill Set #4: Establish Interior Containment.

Skill Set #5: Establish Exterior Containment.

Work in groups of 2 to 6.

Choose the right tools and materials.



Debrief of Hands-on Exercise

Completed with all skillsets in afternoon

How did it go?

What were some of the hard parts?

Now You Know...

- **How to setup for a job**
 - Interior containment
 - Exterior containment

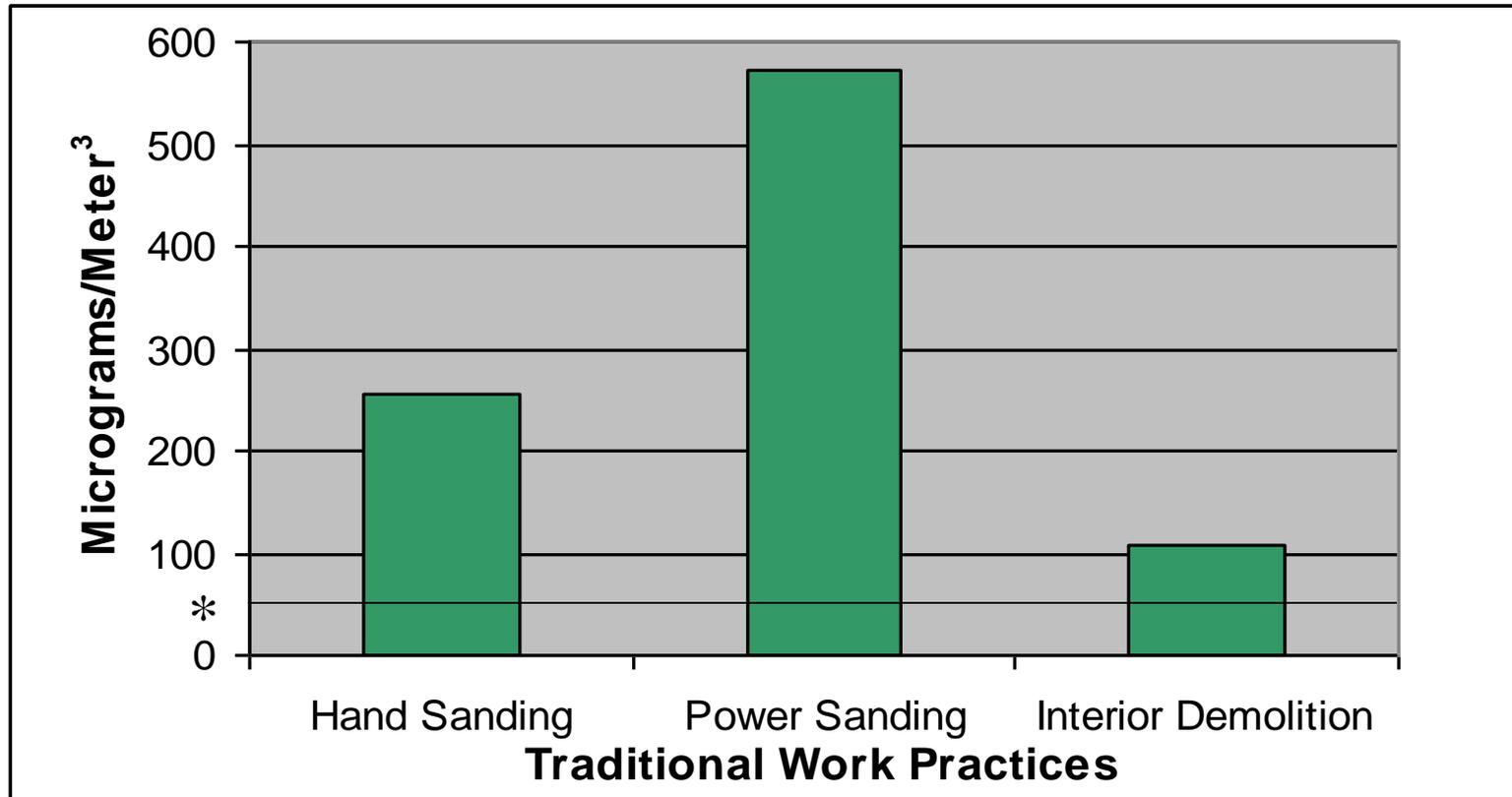
Module 5: During the Work

Overview:

- **Traditional renovations create airborne dust.**
- **Prohibited practices.**
- **Protect yourself and make a personal protective equipment toolkit.**
- **Control the spread of dust.**
- **Hands-on exercise (Skill Set #6).**



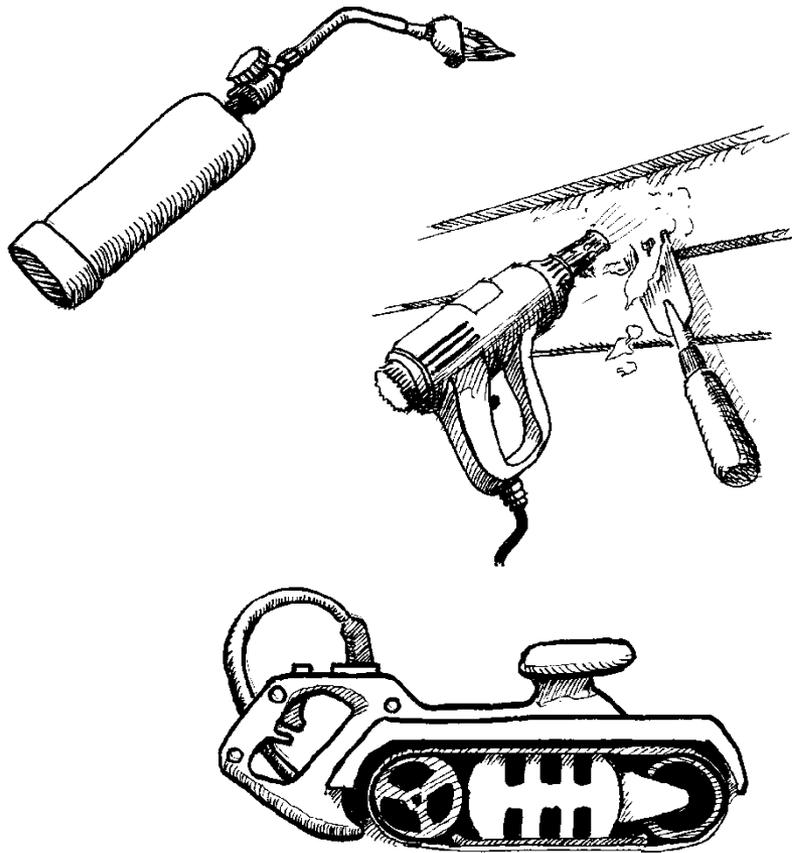
Traditional Renovations Create Airborne Lead Dust



* OSHA Permissible Exposure
Limit (PEL) = 50 $\mu\text{g}/\text{m}^3$



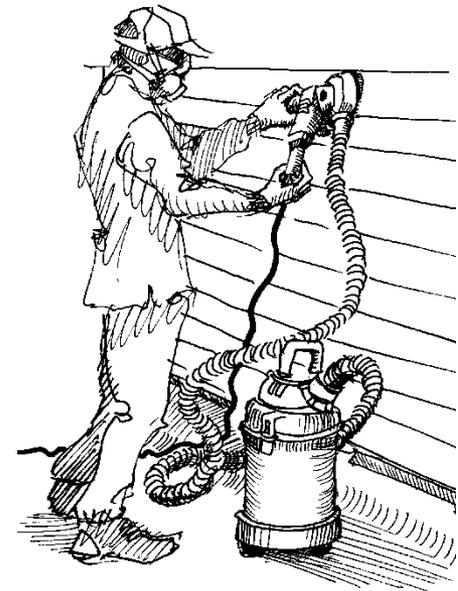
Prohibited Practices



- Open-flame burning or torching.
- Heat gun above 1100° F.
- Power sanding, power grinding, power planing, needle guns, abrasive blasting and sandblasting, without shroud or containment system equipped with HEPA vacuum.

Specialized Tools

- **Large jobs may require special considerations to get the job done, like:**
 - **Power tools designed to remove paint or other coating must have shroud or containment system equipped with HEPA vacuum.**
 - **Pneumatic and battery powered tools to protect against shock hazards.**
 - **Specialized planning and containment.**



Protect Yourself

- **Workers should wear:**
 - Disposable painter's hat.
 - Disposable coveralls.
 - Repair tears with duct tape.
 - Dispose of in plastic bag.
 - Disposable N-100, R-100 or P-100 respirator.
- **Wash face and hands frequently and at the end of each shift.**
 - Washing helps to reduce hand-to-mouth ingestion of leaded dust.
- **OSHA may require more protection depending on what work is done.**



Control the Spread of Dust

- When you leave the work site, clean yourself and your tools.
 - Remove shoe coverings and HEPA vacuum or wipe shoes.
 - Walk on disposable tack pads to remove dust from your soles.
 - HEPA vacuum and remove coveralls, and HEPA vacuum your clothes.
 - Remove gloves if used, and carefully wash your hands and face.
- At the end of the day don't take lead home to your family on your clothes or in your car.
 - HEPA vacuum clothes, shoes, etc.
 - Change your clothes, and dispose of disposable clothing or place dusty work cloths in a plastic bag to wash separately from household laundry.

Don't hug your family until you get clean!

- Wash your hands and face.
- Shower as soon as you get home.



Cleaning During the Job

- **A clean work site reduces the spread of dust and paint chips.**
- **Clean as you work.**
 - **HEPA vacuum horizontal surfaces.**
 - **Remove debris frequently.**
 - **Remove paint chips as they are created.**
 - **As building components are removed, wrap and dispose of them immediately.**
- **Clean frequently (in stages, at least daily).**



Exercise: Personal Protective Equipment

Completed with all skillsets in afternoon

- **Watch the instructor dress a volunteer in personal protective equipment.**
 - **Skill Set #6 – Protective Equipment (10 Min).**
- **Practice putting on and taking off personal protective equipment.**
- **Dispose of used equipment properly and clean up.**



Now You Know...

- **What work practices produce dust.**
- **What work practices are prohibited by EPA and HUD.**
- **How to work safely around lead-based paint and leaded dust.**
- **Proper use of personal protective equipment.**



Module 6: Cleaning Activities and Checking Your Work

Overview

- **What is effective cleanup?**
- **Interior cleaning techniques.**
- **Exterior cleaning techniques.**
- **How to check your work.**
- **Cleaning verification procedure.**
- **Clearance testing.**
- **Safe disposal practices.**



What is Effective Cleanup?

- **Keeping dust from getting back into areas already cleaned.**
- **Using proper cleaning techniques.**
- **Cleaning all surfaces, tools and clothing.**
- **Checking your work.**
 - **Usually will involve performing cleaning verification.**
 - **Could include a clearance examination.**
- **Safe and secure disposal of waste.**



Interior Cleaning Requirements



- **Collect all paint chips and debris, and seal in heavy duty plastic bags.**
- **Mist, remove, fold (dirty side in) and tape or seal protective sheeting. Dispose of sheeting as waste.**
- **Plastic sheeting between non-contaminated rooms and work areas must remain in place until after cleaning and removal of other sheeting.**
- **HEPA vacuum (operated following manufacturer's instructions) or wet wipe walls from high to low, then HEPA vacuum remaining surfaces and wipe with a damp cloth.**
- **Clean 2 feet beyond the contained work area.**
- **Use disposable wipes or change cloths frequently.**
- **For carpet or rug, use HEPA vacuum with beater bar.**
- **HEPA vacuum and wet mop uncarpeted floors - two-bucket mopping method or wet mopping system.**



Visual Inspection Procedure

1. **Conducted by Certified Renovator.**
2. **Put on disposable foot covers before entering the work area.**
3. **Make sure there is adequate lighting in the work area.**
 - Turn-on all of the lights or use a bright, white-light flashlight.
4. **Systematically look for dust, debris or residue on every horizontal surface in the work area and 2 feet beyond.**
 - Work from the farthest area from the entry to the entry.
 - Closely examine each surface.
5. **If you find visible dust, debris or residue, then re-clean the work area and repeat step 4.**
6. **Once you have carefully looked at all of the surfaces and found no dust, debris or residue proceed to the cleaning verification procedure or clearance.**



Cleaning Verification (CV) Procedure

- Wipe each window sill within the work area. Use a single wet disposable cleaning cloth per window sill.
- Wipe uncarpeted floors and all countertops with wet disposable cleaning cloths. Wipe up to a maximum of 40 ft² per cloth.
- Compare each wipe to the CV card. If the cloth matches or is lighter than the CV card, the surface has passed cleaning verification and no further action is required.
- If the cloth is darker than the CV card, re-clean and repeat the CV process.
- If the second wet cloth fails, wait 1 hour or until surfaces are dry, and then wipe with an electrostatically-charged white disposable cleaning cloth designed to be used for cleaning hard surfaces. This completes the cleaning verification.



Dust Clearance Examination

A dust clearance examination may be performed instead of cleaning verification.

- A clearance examination must be a conducted by a Certified Lead Inspector, Risk Assessor, or Dust Sampling Technician.
- If clearance fails, the renovation firm must re-clean the work area until dust standards comply with applicable state, territorial, tribal and local standards.



Dust Clearance Examination

EPA dust clearance examination levels?

- A clearance examination must be a conducted by a Certified Lead Inspector, Risk Assessor, or Dust Sampling Technician.

Floors	10 μ g/ft ²
Interior window sills	100 μ g/ft ²
Window trough	400 μ g/ft ²



Exterior Cleanup Requirements

- **Clean all surfaces in the work area until no visible dust, debris, or residue remains.**
- **Collect all paint chips and debris without dispersal, and seal in heavy plastic bags.**
- **Remove protective plastic sheeting and mist before folding it dirty side inward.**
- **Check your work.**
 - **Focus on areas such as window sills, bare soil, and children's play areas.**
 - **Look for dust, debris and paint chips.**



Exterior – Check Effectiveness of Cleaning

Visual inspection

- A Certified Renovator conducts a visual inspection after cleaning.
- Determines if any dust, debris or residue is still present on surfaces in and below the work area. Including windows sills and the ground.
- If dust, debris or residue is present, these conditions must be eliminated by re-cleaning.
- After re-cleaning, the Certified Renovator conducts another visual inspection.
- When all areas pass, warning signs may be removed.



Disposal

- What should I do with my waste?
- At the work site:
 - Place waste in heavy duty plastic bag.
 - “Gooseneck seal” the bag.
 - HEPA vacuum the exterior of the waste bag before removing it from the work area.
 - Store waste in a secure area.
 - Carefully dispose of waste in accordance with Federal and other regulations.
 - Always check local waste requirements



Disposal – Federal, State and Local Information

- According to Federal law:
 - In housing: Waste can be disposed of as normal household waste.
 - In non-residential child-occupied facilities: If hazardous waste exceeds 220 lbs, dispose of as hazardous waste.
- Always check local requirements!



Exercise: Cleaning and the Cleaning Verification Procedure

Completed with all skillsets in afternoon

- Work in groups of 2-6.
- Assignments:
 - **Skill Set #7: Interior Final Cleaning**
 - **Skill Set #8: Exterior Final Cleaning**
 - **Skill Set #9: Bagging Waste**
 - **Skill Set #10: Visual Inspection**
 - **Skill Set #11: Cleaning Verification Procedure**
- Choose the tools and supplies you need to clean the work area.
- Clean your work area.
- You have 40 minutes.



Now You Know...

- How to clean the work area systematically.
- How to check the effectiveness of cleaning.
- How to perform a visual inspection of the work area.
- How to perform the cleaning verification procedure.
- How to release the work area for clearance testing.
- How to properly dispose of waste.



Module 7: Recordkeeping

Overview:

- **In this section, you will learn about records required for each job.**
- **Records must be retained and made available to EPA, upon request, for 3 years following completion of renovation.**



On-The-Job Records

- **Copies of Certified Firm and Certified Renovator certifications (must be kept on site)**
- **Lead-based paint testing results when an EPA-recognized test kit is used**
- **Laboratory results when a paint chip sample is obtained by a Certified Renovator**
- **Proof of owner/occupant pre-renovation education**
- **Non-certified worker training documentation**



Recordkeeping: Pre-Renovation Education Records

In Target Housing – Individual units:

- Must acquire either written proof of receipt by an adult occupant or proof of delivery/unsuccessful delivery of *Renovate Right*, or:
- Written proof of receipt of *Renovate Right* by owner or proof of mailing (if mailing, send 7 days prior to renovation).

In Target Housing - Common Areas (Two Options):

- Provide written notification to each affected unit and make *Renovate Right* pamphlet available on request; or:
- Keep copies or pictures of the signs and notices posted.

In Child-Occupied Facilities

- Written proof of receipt of *Renovate Right* by owner or proof of mailing required (If mailing, send 7 days prior to renovation).
- Maintain proof of receipt by owner or adult representative, or certify in writing that the *Renovate Right* pamphlet has been delivered to facility.
- Keep copies or pictures of the signs and notices posted.



Sample Confirmation of Receipt of *Renovate Right*

- I have received a copy of the pamphlet, *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools*.

Recipient Signature: _____ Printed Name: _____ Date: __/__/__

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.
- Unavailable for signature.

Gather the following information:

- Printed name and signature of person certifying lead pamphlet delivery.
- Date and time of lead pamphlet delivery.
- Unit address.



Recordkeeping: Non-Certified Worker Training

Documented on the Training Log or Post Renovation Report

- **Worker's name.**
- **Description of lead safe work practices the worker is trained to perform.**
- **Completed and signed skills evaluation checklists.**
- **Date(s) of training.**
- **Name and signature of the Certified Renovator who conducted the training.**



Recordkeeping: Test Kit Reporting

If an EPA-recognized test kit is used to test surfaces in the work area, the firm must:

- **Submit a report to the person contracting for the work within 30 days after the end of the renovation, containing:**
 - **Manufacturer and model of the EPA-recognized test kit.**
 - **A description of the components tested.**
 - **The location of components tested.**
 - **Results of the testing.**
- **Retain a copy of the test kit documentation form.**



Recordkeeping: Paint Chip Sample Results Reporting

Paint chip sampling records must be maintained similarly to test kit results

- **Submit a report to the person contracting for the work within 30 days after the end of the renovation, containing:**
 - Description and location of the components tested
 - Dimensions of the area sampled, in cm and area in cm²
 - Laboratory analysis results
- **Retain a copy of lab results and client report**



Recordkeeping: Post-Renovation Reporting

Following a renovation, firms must document and share the following information

- Project information documenting compliance with renovation training, certification, and work practice requirements.
- If performed, documentation of dust clearance sampling.
- This information must be prepared, retained by the firm and shared with owners and occupants of housing and child-occupied facilities.



Now You Know...

- **To have records available at the work site of:**
 - **Certifications for the Certified Firm and Certified Renovators.**
- **To retain all records for at least 3 years after completion of the renovation.**
- **To keep records of:**
 - **Training and certifications for all renovation personnel, and for certification of the firm.**
 - **Distribution of required information.**
 - **Communications with and certifications from owners and residents.**
 - **Work activities in compliance to the Rule.**
 - **Post-renovation reports.**



Module 8: Training Non-Certified Renovation Workers

Certified Renovators are responsible for teaching lead-safe work practices to non-certified renovation workers.



Teaching Lead Safe Work Practices Means

- Training workers to properly use signs, dust barriers, dust minimizing work practices, and dust cleanup practices during the course of renovation, repair, and painting activities to prevent and/or reduce potentially dangerous dust-lead contamination in the home.
- To effectively train workers you need to:
 - Know lead safety yourself.
 - Show students what you know.
 - Review the shopping list in *Steps to LEAD SAFE Renovation, Repair, and Painting* and have appropriate materials at hand.



The Role of the Certified Renovator

Certified Renovators:

- Perform lead safe work as described in the RRP Rule.
- Train all non-certified workers in lead safe practices.
- Provide onsite and regular direction for all non-certified workers during setup and cleanup.
- Are available by phone when not physically present at the work site during work.
- Maintain onsite proof of certification as a Certified Renovator.



Role of Trained, Non-Certified Renovation Workers

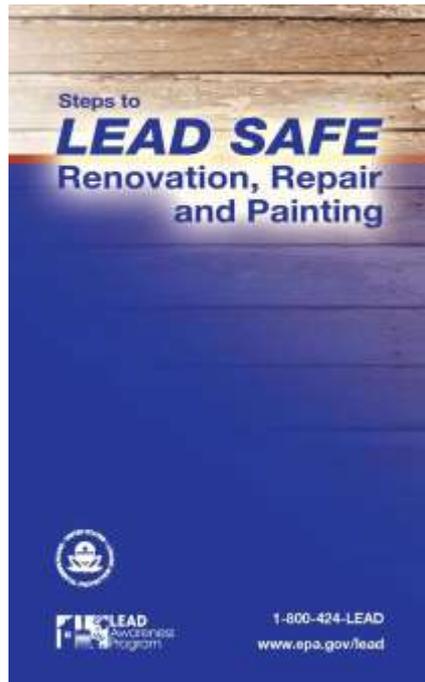
- **Trained, non-certified renovation workers are persons, working on renovation, repair and painting jobs who have had on-the-job training or similar classroom training from a Certified Renovator to perform tasks in conformance to the EPA RRP Rule.**
- **They must perform lead-safe work practices as described in the RRP rule:**
 - **Protect the home by “setting up” the work area.**
 - **Protect themselves.**
 - **Perform renovation work safely.**
 - **Prohibited Practices must not be used.**
 - **Control dust and debris.**
 - **Clean the work area.**



Steps for Teaching Lead Safety During Renovations

- Approach to training non-certified renovators

Use the “Steps” Guide



- ***Steps to LEAD SAFE Renovation, Repair and Painting*** covers basic lead safe practices and can be used as a training guide outside of the classroom in conjunction with on-the-job demonstrations and hands-on training.
- It is strongly recommended that you use this guide as a basis for training.



Step 1: Determine If the Job Involves Lead-Based Paint

- Lead-based paint (LBP) is found many older homes:
 - 1960-1978 homes – 1 in 4 have LBP.
 - 1940-1960 homes – 7 in 10 have LBP.
 - Pre-1940 homes – 9 in 10 have LBP.
- Renovation, repair or painting that disturbs lead-based paint can create significant lead-based paint hazards in homes.
- Just a little lead-based paint dust can poison kids, their parents and pets, and can cause problems for pregnant women and their unborn children.
- The Certified Renovator will determine if lead-based paint is present on work surfaces.
- If information about lead-based paint is not available for a pre-1978 homes or a child-occupied facility, assume that lead-based paint is present and use lead-safe work practices.



Step 2: Set It Up Safely

- **Containment is used to keep dust IN the work area and non-workers OUT!**
- **Signs and barriers are used to limit access.**
- **Inside versus outside jobs**
 - **Review all procedures and differences in setup.**



Step 3: Protect Yourself

- **Without the right personal protective equipment (PPE) workers can swallow and inhale lead from the job, and can carry lead on their skin and work clothes home to their families.**
- **Review the “shopping list.”**
- **Advise workers to:**
 - Keep clothes clean or use disposable clothing.
 - Wear a respirator. The appropriate respirator keeps lead out of the lungs and stomach.
 - Wash-up each time they leave the work area and especially at the end of the day.



Step 4: Control the Spread of Dust

- The goal is to control the spread of dust that is created.
- Review the “shopping list.”
- Use the right tools.
- Disposable plastic drop cloths control the spread of dust and debris.
- Avoid prohibited practices.



Step 5: Leave the Work Area Clean

- The goal should be to leave the work area completely free of dust, debris and residue.
- Review the “shopping list.”
- Discuss daily cleaning procedures.
- Discuss end of job cleaning procedures.



Step 6: Control the Waste

- **Discuss the waste bagging procedure.**
- **Demonstrate folding a small section of plastic with the dirty side turned in.**
- **Discuss temporary storage of waste.**
- **Discuss how to deal with waste water appropriately.**
- **Discuss waste disposal rules that apply to the specific job.**



Step 7: Cleaning Verification or Clearance Testing

- **Cleaning verification will be performed by a Certified Renovator after most renovations.**
- **A clearance examination may be requested in place of cleaning verification by the owner, and is required in some cases.**
- **Discuss what happens when cleaning verification and/or clearance is not passed.**



Training Documentation

- **The Certified Renovator assigned to the job must maintain the following records for on-the-job training :**
 - **Written certification of worker training:**
 - **Must show which workers have what training;**
 - **Must list all training topics covered for each worker; and,**
 - **Must be signed by the Certified Renovator who did the training.**
 - **All training documentation must be kept for 3 years following completion of the renovation.**



Now You Know...

- That Certified Renovators are responsible for training non-certified renovation workers.
- The roles of Certified Renovators and trained, non-certified workers during conduct of a renovation.
- How to use *Steps to LEAD SAFE Renovation, Repair and Painting* to train non-certified renovation workers.



Hands-on Training Will Now Begin

Questions can be directed to our staff at
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