

# Welcome!



**EEA**

**ENVIRONMENTAL  
EDUCATION ASSOCIATES**

*Working to make our communities healthy*

**US Environmental Protection  
Agency Accredited**

**Lead Safety for Renovation,  
Repair & Painting (RRP)  
Refresher Presentation**

Presented by  
Environmental Education  
Associates

# 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

# Course Agenda

- Introduction and welcome
- Module 1: Federal Regulations
- Module 2: Using EPA-Recognized Test Kits
- Module 3: Review of Setup Practices
- Break
- Module 4: Review of Prohibited Practices, Personal Protective Equipment and Dust Control
- Module 5: Review of Cleanup Practices, Cleaning Verification Procedure and Hands-on
- Module 6: Recordkeeping
- Module 7: Training Non-Certified Renovation Workers
- Test

# Training Manual Overview

- Seven modules
- Key appendices
  - Appendix 1 - EPA's Renovation, Repair, and Maintenance Program Final Rule (40 CFR Part 745)
  - 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

# Welcome

## US EPA Lead Abatement Training for Supervisors & Contractors



**EEA**

**ENVIRONMENTAL  
EDUCATION ASSOCIATES**

*Working to make our communities healthy*

# Course Introduction

- Instructor
- Registration and Other Documents
- Attendee Introductions

# Course Materials

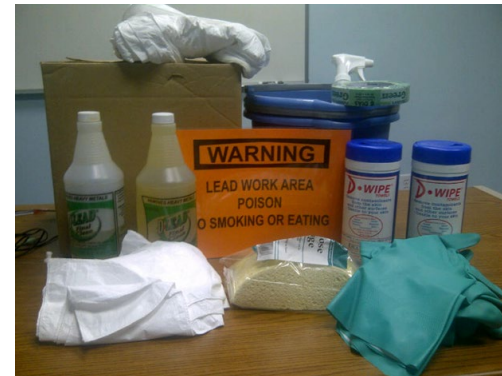
- Agenda Overview
- Reference Manual
- Handouts
- Course Evaluations
- Hands-On Exercises
- Exam

# Other Services – Equipment & Supplies

## Lead Hazard Control

- Lead Safety Kits
- HEPA Vacuums
- PPE
- Specialty Cleaners
- Warning Signs & Tape
- Zipwall Products
- PPE

Visit [environmentaleducation.com](http://environmentaleducation.com)  
to shop & order



# Other Services - UNYSE

## Asbestos

- Inspections & surveys
- Project Design
- Monitoring & Sampling

## Mold

- Inspections & Sampling
- Project Management
- Clearance

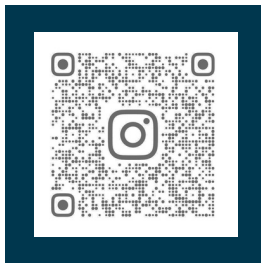
## Lead Hazards

- Inspections & Risk Assessments
- Design & Monitoring
- Clearance

## Hazardous Materials/PCBs

- Sampling & Surveys
- Project Health & Safety
- Monitoring & Clearance

# FOLLOW EEA ON SOCIAL MEDIA



**INSTAGRAM**

@ENVIRONMENTAL.ED



**FACEBOOK**

ENVIRONMENTAL  
EDUCATION  
ASSOCIATES INC.



**LINKEDIN**

ENVIRONMENTAL  
EDUCATION  
ASSOCIATES INC.



**YOUTUBE**

@ENVIRONMENTAL  
EDUCATIONASSO4189

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

# Module 1: Regulations

## - The RRP Rule

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

# The RRP Rule: Exclusions

- **Renovation activities where affected components do not contain lead-based paint.**
- **Emergency renovations (requires cleanup and cleaning verification).**
- **Minor repair and maintenance activities.**  
*Note: This 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

- To become certified, firms must submit an application and 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 either take an EPA-approved 8-hour training course, or for those with previous training an EPA-approved 4-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 applicable on-the-job training to non-certified workers.
- Keep a copy of initial and/or refresher training certificates onsite.
- When requested, conduct testing for lead-based paint using EPA-recognized test kits or collect paint chip samples for lab analysis and report findings.
- 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.

# Pre-Renovation Education Requirements

- The RRP Rule updated the Pre-Renovation Education Rule. This slide summarizes the changes.
  - Renovation firms must provide the new *Renovate Right* pamphlet (Appendix 3) to owners and occupants of target housing before renovation starts.
  - In a child-occupied facility, *Renovate Right* must be provided to the owner or an adult representative before renovation.
  - For work in common areas of multifamily housing or child-occupied facilities, firms must notify tenants or parents/guardians of the children, or post informational signs about the renovation or repair.
  - See the *Compliance Guide* (Appendix 4) for more information.



# The RRP Rule: Work Practice Standards

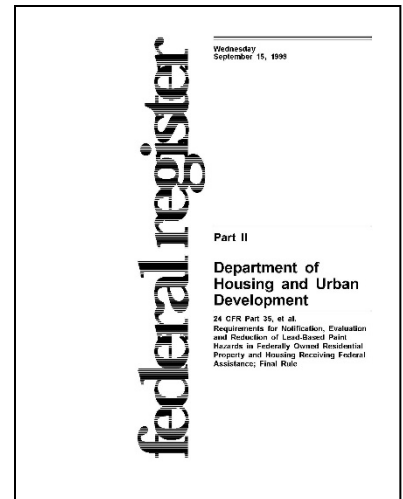
- The Renovation, Repair, and Painting Final Rule covers setup of the work area, prohibited work practices, cleanup and the cleaning verification procedures.
  - Setup practices, such as posting signs and containing the work area, will be covered in Module 3.
  - Prohibited practices and dust control will be covered in Module 4.
  - Cleanup practices and cleaning verification procedures will be covered in Module 5.
  - Recordkeeping will be covered in Module 6.

# 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 for each violation.
- Those firms who knowingly or willfully violate this regulation may be subject to additional fines per violation, or imprisonment, or both.

# HUD's Lead Safe Housing Rule (LSHR)

- Covers target HOUSING that is Federally-owned or assisted.
- Does not cover child-occupied facilities.
- Key differences between the LSHR and the RRP Rule are shown in text boxes with the HUD logo.
- See Appendix 2 for a complete discussion of additional requirements imposed by the LSHR on Certified Renovators working in Federally-assisted target housing.



# 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.

# Know the Rules!

- To obtain a copy of the EPA or HUD regulations contact the National Lead Information Center at 1-800-424-LEAD or download them from the following websites:

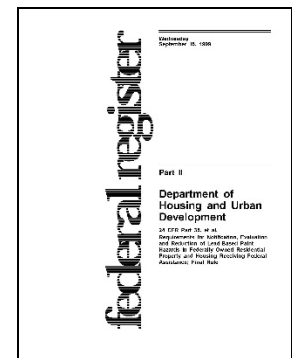
- <http://www.epa.gov/lead>
- <http://www.hud.gov/offices/lead>

- U.S. Occupational Safety and Health Administration (OSHA):

- Establishes worker protection standards.
- For more information, on the OSHA Lead in Construction Standard, see <http://www.osha.gov/Publications/osha3142.pdf>.

- State and local regulations:

- Renovators must follow all applicable state and local regulations during renovations.



# Module 2: Testing for Lead-based Paint

## Overview

This module teaches you:

- To test for lead-based paint.
- To use EPA-recognized test kits to check for lead-based paint.
- To collect a paint chip sample for lead analysis at a NLLAP-recognized entity.

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES  
*Working to make our communities healthy*

2-1

# How to Test for Lead-Based Paint

- 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.

# 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

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

2-5

# Test Kit Hands-on

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.

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

2-6

# Paint Chip Sample Collection Hands-on

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.

# Module 3: Review of Setup Practices

## Overview

- Containing dust for interior activities.
- Containing dust for exterior activities.

# Keep Dust Within the Containment

- Containment is required.
- You are responsible for making sure dust does not migrate out of containment.
- Consider how much dust the renovation will generate.
- Plan the size and configuration of containment to keep the generated dust within 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.



# Overview of Interior Setup Steps

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

- Limit access and post signs.
- Remove or cover belongings
- Cover floors.
- Close windows, close and seal doors and HVAC system.
- Work area entry.



**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES  
*Working to make our communities healthy*

3-4

# Overview of Exterior Containment Steps

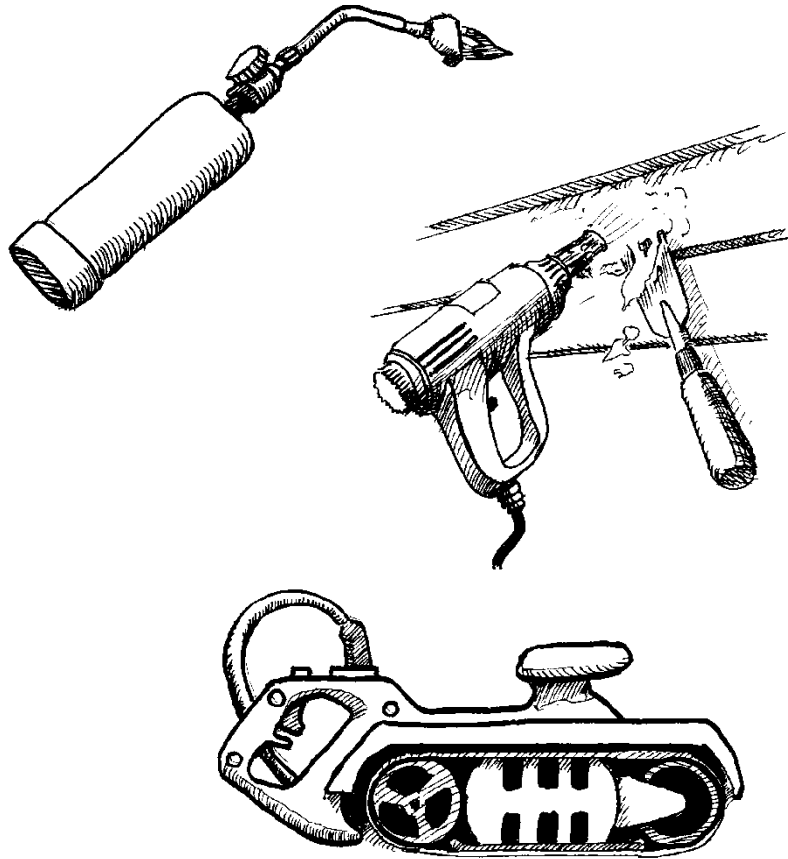
- Establish the work area.
- Close all windows and doors.
- Establish, as necessary, additional containment to prevent spread of dust to adjacent properties.
- Erect Vertical Containment for any exterior renovations within 10 feet of the property line.

# Module 4: Review of Prohibited Practices, Personal Protective Equipment and Dust Control

## Overview:

- Prohibited practices.
- Protect yourself
- Control the spread of dust.

# Prohibited Practices



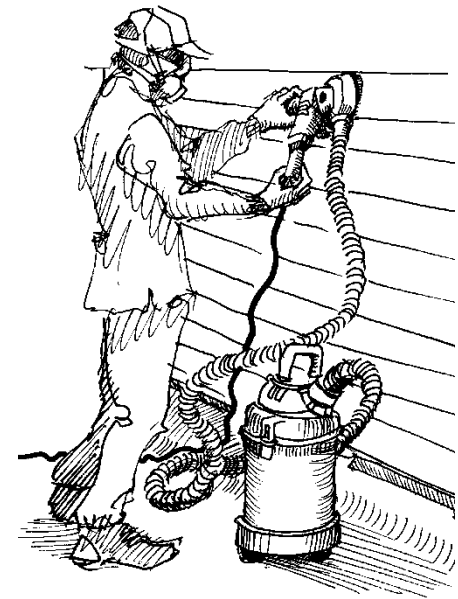
- Open-flame burning or torching.
- Heat gun above 1100° F.
- Power sanding, power grinding, power planing, needle guns, abrasive blasting and sandblasting, without a shroud or containment system equipped with a HEPA vacuum.

# Dust Reducing Techniques

- Wet scraping and sanding
- Heat gun below 1,100 degrees F
- Use of power tools with shrouds or containment systems equipped with a HEPA vacuum attachment
- Chemical stripping

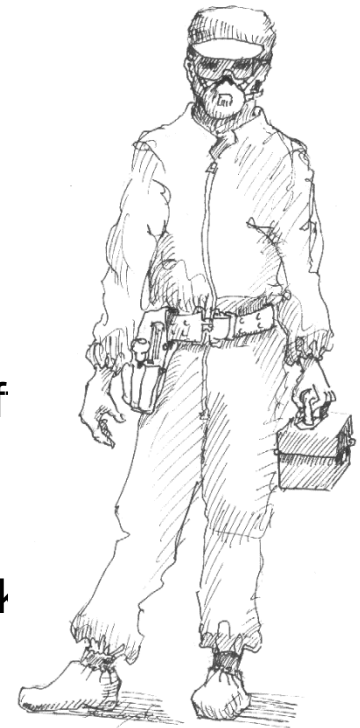
# Specialized Tools

- Large jobs may require special considerations to get the job done, like:
  - **Power tools designed to remove paint or other surface coatings must have a shroud or containment system equipped with a HEPA vacuum attachment.**
  - **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.



**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

4-5

# 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).

# Module 5: Cleaning Activities and Checking Your Work

## Overview

- Interior cleaning techniques.
- Exterior cleaning techniques.
- How to check your work.
- Cleaning verification procedure.
- Clearance testing.
- Safe disposal practices.

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

5-1

# Interior Cleaning Requirements



- Collect all paint chips and debris; 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.

# 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 ft<sup>2</sup> 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 clearance standards and any state, territorial, tribal and local standards are met.**

# 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 residue.**

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES  
*Working to make our communities healthy*

# 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 waste generated on the job?
- 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.

# Exercise: Cleaning Verification Procedure

- Work in groups of 2-6.
- Assignment:
  - Skill Set #2: Cleaning Verification Procedure
- You have 20 minutes.

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

5-9

# Module 6: 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 using an EPA-recognized test kit or paint chip sample
- Laboratory results when a paint chip sample is obtained by a Certified Renovator
- Proof of owner/occupant pre-renovation education, including receipt of *Renovate Right* pamphlet.
- Non-certified renovation worker training documentation.

# Non-Certified Renovator Training Records

- Name and Signature of the Certified Renovator.
- Description of the lead safe work practices the non-certified renovation 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.

**EEA**

ENVIRONMENTAL  
EDUCATION ASSOCIATES

*Working to make our communities healthy*

# 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.

# Module 7: Training Non-Certified Renovators

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

# Teaching Lead Safe Work Practices Means

- Training non-certified renovators 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 non-certified renovators you need to:
  - **Know lead safety yourself.**
  - **Show non-certified renovators what you know.**
  - **Review “shopping list” and have materials at hand.**

# The Role of the Certified Renovator

## Certified Renovators:

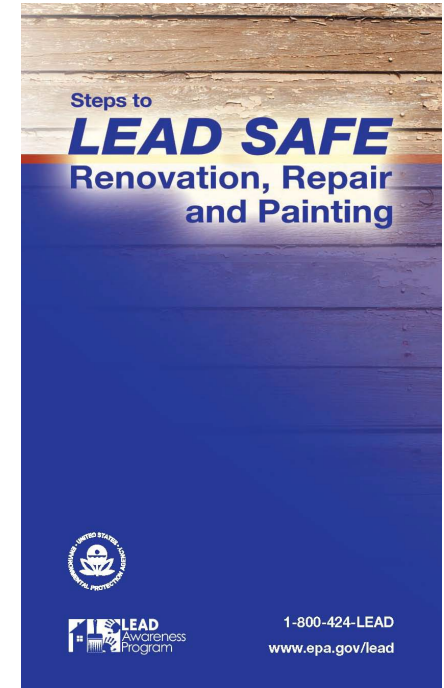
- Perform lead safe work as described in the RRP Rule (Sections 40 CFR 745.85 (a) and (b)).
- Train all non-certified renovators in lead safe practices.
- Provide onsite and regular direction for all non-certified workers during setup and cleanup.
- Are available by phone when not physically present at the work site during work.
- Maintain onsite proof of certification as a Certified Renovator.

# Role of Trained, Non-Certified Renovators

- Trained, non-certified renovators 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.**
  - **Clean the work area.**
  - **Control dust and debris.**

# Teaching Lead Safety During Renovations – Use the Steps

- *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 can poison kids and their parents, poison pets, and 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 your lungs and stomach.
  - Wash-up each time you 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.
- If possible, work wet.
- 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.
- A clearance examination is required in many pre-1978 properties receiving Federal housing assistance.
- Discuss what happens when cleaning verification and/or clearance is not passed.