

Introduction to Lead Safety

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...**

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Why Are You Here?

- The traditional renovation work you do can create significant dust-lead hazards if lead-based paint is disturbed.
- The leaded dust generated by traditional renovation work can cause lead poisoning in children. It can also poison pregnant women, yourself and other workers and even pets. Practical changes in work practices can minimize and contain dust. The use of lead-safe work practices makes the job safer and reduces your liability exposure.
- EPA's Renovation, Repair and Painting Final Rule (40 CFR 745) requires that renovations conducted for compensation, must be performed by Certified Firms using Certified Renovators. Renovation firms that wish to work in pre-1978 homes and child-occupied facilities must apply to EPA and pay a fee in order to become certified. Renovators seeking to become Certified Renovators must successfully complete an EPA-accredited renovator course or a course accredited by an EPA authorized State or Tribe. This course is the EPA model course for Certified Renovators and as such meets all requirements in 40 CFR 745.90.
- This course will teach you how to comply with the EPA Renovation, Repair and Painting Rule and the HUD Lead Safe Housing Rule, and how to perform lead-safe work practices safely and effectively.
- Once you have successfully completed a Certified Renovator Course, delivered by an EPA-accredited training provider, you are an EPA Certified Renovator. EPA Certified Renovator status will allow you to do lead safe renovation, repair, and painting work in pre-1978 housing and in child-occupied facilities where work will disturb lead-based paint. Your certification is valid for five years from the date of completion of the course. To renew certification after five years, you must successfully complete an EPA-accredited Certified Renovator Refresher Course before your initial certification expires. Refresher training must be taken every five years to maintain certification. If the certified renovator training is not refreshed within five years of the previous training, you must retake the initial course to become certified again.

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



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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**



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Modules - In addition to this introduction, there are eight modules in this course:

- Module 1: Why Should I Be Concerned About Lead Paint?
- Module 2: Regulations
- Module 3: Before Beginning Work (includes Skill Set #1)
- Module 4: Contain Dust During Work (includes Skill Sets #2 - #5)
- Module 5: During the Work (includes Skill Set #6)
- Module 6: Cleaning Activities and Checking Your Work (includes Skill Sets #7 - #11)
- Module 7: Recordkeeping
- Module 8: Training Non-Certified Renovation Workers

Activities and Exercises - The course includes activities and exercises to help you identify methods for reducing the amount of dust you create, and containing and cleaning up the dust you do create. 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 - This manual has nine appendices that provide extra information that will help contractors.

- Appendix 1 – [Intentionally Blank]
- 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 7 - State and Local Regulations
- Appendix 8 - Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint Activities Conducted in Households
- Appendix 9 – Paint Chip Sample Collection Guide
- Appendix 10 - For More information

Test - Renovators must pass the test administered at the end of the course in order to earn certification. Failure to pass the test means you must retake the course.

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.**

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Module 1: Teaches the health problems related to lead, why lead is a problem you need to deal with, and who is put at risk if renovations are not handled correctly.

Module 2: Teaches what EPA and HUD rules require of Certified Firms and Certified Renovators.

Module 3: Teaches how to determine if lead-based paint affects your work, and how to educate owners and residents in target housing, or owners and adult representatives in child-occupied facilities about how the work will affect lead in their property. This module also discusses how to plan the work so that it is lead safe.

Module 4: Teaches how to properly set up the work area so that dust and debris created by your work do not contaminate the property and leave behind lead dust.

Module 5: Teaches how to work in a lead-safe manner and what practices are prohibited by the EPA and/or HUD rules; provides information on personal protective equipment.

Module 6: Teaches how to effectively clean up dust generated by the work performed in the home or child-occupied facility, and teaches Certified Renovators how to conduct a cleaning verification. This section also contains information about how to dispose of renovation waste.

Module 7: Teaches the requirements in the EPA and HUD Rules for creating and maintaining documentation of the work.

Module 8: Teaches the Certified Renovator how to train non-certified renovation workers in lead safe practices while on the job.

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.**

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The Value of this Training

- This course meets EPA and HUD requirements for lead-safe work practices training under the RRP Rule.
- Renovators obtain EPA certification after successful completion of the course.
- 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 and lead-based paint hazards from a home. This course **is not** an abatement course designed to address the removal, encapsulation or enclosure of lead-based paint or lead-based paint hazards. This course **is not** an Operations and Maintenance course designed to manage lead-based paint in place using interim controls. To perform lead abatement work requires additional specialized training.

OSHA

- OSHA has training requirements for workers that employers should be aware of. For more information on OSHA requirements, visit www.osha.gov/Publications/osha3142.pdf.
- Another helpful OSHA publication addresses general safety and health hazards in construction, OSHA 3252 Construction Pocket Guide, it's available at <https://www.osha.gov/Publications/osha3252.pdf>.

State, Local, and Tribal Requirements

- Many states, localities and Indian tribes have their own lead-based paint requirements, including specific training and certification requirements. Check with your State, local or tribal housing and environmental agencies to obtain information about such requirements.

Module 1: Why Should I Be Concerned About Lead Paint?

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?

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1-1

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

- What lead-based paint is and why it is a problem for renovators.
- The health risks of lead to children and adults.
- Why we are concerned with lead-contaminated dust.

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.**

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Federal standards define lead-based paint.

- Lead-based paint is 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.
- Paint with concentrations of lead lower than the definition above can still cause health problems. Even paint with a small amount of lead can account for a lot of lead in airborne or settled dust.
- Information on how to determine if a property contains lead-based paint is provided in Module 3.

Some states and localities regulate paint with lower concentrations of lead.

- You should check with your state and local health departments to see if they have requirements that are more stringent than the Federal requirements.

Why was lead added to paint?

- Lead was added for color and durability.
- Lead was also added to some other surface coatings, such as varnishes and stains.

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.
- This is why the year of construction is such an important consideration.

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.**

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Children under six are most at risk from small amounts of lead.

- Children are at a greater risk than adults because their bodies are developing. 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.
 - Decreased intelligence, attention deficit disorder, and learning disabilities.
 - Speech, language, and behavior problems.

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

- Lead is passed from the mother to the fetus and can cause:
 - Miscarriages
 - Premature births
 - Brain damage
 - Low birth weight

Health effects of lead in adults include:

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

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.

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1-4

Lead poisoning does not always have obvious symptoms.

- The symptoms of lead poisoning are often non-specific, and 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
 - Joint and/or muscle pain
- Because many symptoms are non-specific or similar to flu symptoms, parents may not be alerted to get immediate medical attention for their children. This is critical for young children. The longer a young child stays untreated, the higher the risk of permanent brain damage.
- Workers with an occupational exposure to lead need to inform their doctors in order to give them all the background needed for an adequate evaluation of symptoms as possibly related to lead exposure.
- The best way to determine if lead is present in the body is by testing blood.
- The amount of lead in blood is measured in micrograms per deciliter ($\mu\text{g/dl}$) of the blood, a very small unit of measurement. A microgram is one millionth of a gram. That is like one penny out of \$10,000. For reference, a standard size paper clip weighs about one gram, or one million times more than a microgram. A microgram is a very small amount of lead. Remember how small this amount of lead is as it applies to dust cleanup when we get to **Module 4: Contain Dust During Work, Module 5: During the Work**, and **Module 6: Cleaning Activities and Checking Your Work**.

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.**

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Dust and debris from renovation, repair, and painting jobs in pre-1978 housing and child-occupied facilities 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 above 1100° Fahrenheit, and open flame burning, can generate lead dust. 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 children and adults.

- A tiny amount of lead can be extremely harmful.
- Leaded-dust particles are often so small that you cannot see them, yet you can breathe or swallow them. These smaller, inhaled or swallowed dust particles are more easily absorbed by the body than larger particles, and can therefore more easily cause poisoning.
- Leaded dust 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, dust is created. The dust goes into the air that they breathe.
 - If workers eat, drink, smoke or put anything into their mouths without washing up first, they may swallow the leaded dust present.

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!

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A little dust goes a long way.

- **You can't see it.** Even a floor that looks clean can have leaded dust on it. 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 dust in a work area. Sweeping is not enough. You need to use water, detergent and a HEPA vacuum to clean up dust effectively.
- **It travels.** Once dust is released, it is easily tracked around, inside and outside the work area. And, an exterior painting job can contaminate the inside of a home as the dust, chips and leaded soil are tracked inside.

Later in this course we will discuss in detail the EPA and HUD dust-lead hazard and clearance standards. The limits are included here to reinforce the idea that a very small amount of lead can cause health problems. These numbers represent the amount of lead measured in micrograms (1 millionth of a gram) that is allowed in an area one foot wide and one foot long (one square foot). More than this amount of lead in the specified areas is hazardous.

EPA & HUD use these standards when clearance is performed:

•Floors	• 40 $\mu\text{g}/\text{ft}^2$
•Interior window sills	•250 $\mu\text{g}/\text{ft}^2$
•Window troughs	•400 $\mu\text{g}/\text{ft}^2$

NOTE: States and localities may enforce lower standards.

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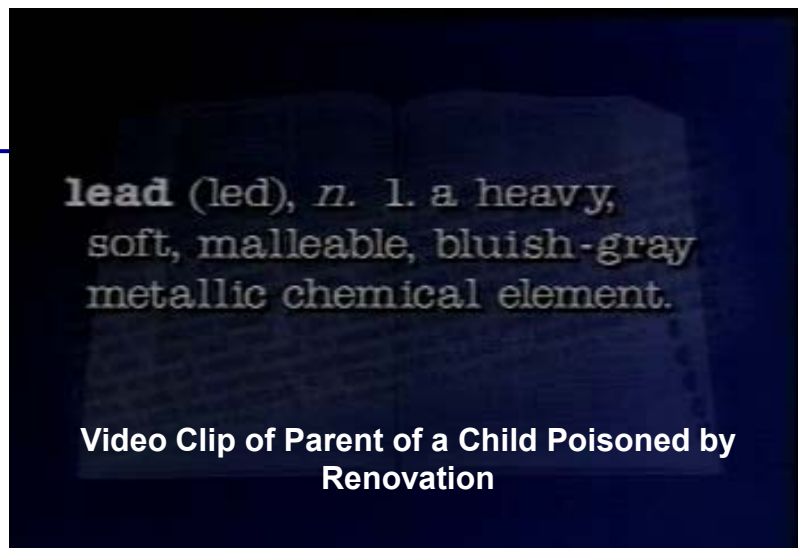


1-7

Contractor discusses how lead safe work practices could have protected his kids from becoming lead poisoned.

The video shown at this point in the course is of Kevin Sheehan, a lead contractor, who discusses how he poisoned his family while working on older houses which contained lead-based paint. Kevin discusses the need for lead safety precautions during renovation work, shares the lessons he has learned, and reveals what can be done to keep people safe during work in older homes with lead-based paint.

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1-8

Parent Discusses Child Poisoned by Renovation Undergoing Treatment.

The video shown at this point in the course shows Maurci Jackson, a parent whose child became lead poisoned, discussing how hard it was to watch her daughter undergo “chelation” treatments to remove lead from her body. Maurci shares her fears about her child’s future health after being lead poisoned and her frustration that lead poisoning is completely preventable if those who disturb lead-based paint would just considered the consequences of working with lead improperly. She emphasizes the need for lead safety precautions and planning to prevent lead poisoning.

Note: Chelation treatment is a series of medical procedures that remove lead from the body.

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.**

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Module 2: Regulations

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.

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U. S. Environmental Protection Agency (EPA):

- EPA has established training requirements for people involved in lead abatement (the permanent removal of lead). **Certified Renovators may not perform lead-based paint abatement unless they are Certified Lead Abatement Workers or Certified Lead Abatement Supervisors.**
- Lead abatement is defined as any measure or set of measures designed to permanently remove or cover lead-based paint or lead-based paint hazards. Abatement includes, but is not limited to: (1) The removal of paint and dust, the permanent enclosure or encapsulation of lead-based paint, the replacement of painted surfaces or fixtures, or the removal or permanent covering of soil, when lead-based paint hazards are present in such paint, dust or soil; and (2) All preparation, cleanup, disposal, and post-abatement clearance testing activities associated with such measures. (40 CFR 745.223).
- Abatement does not include renovation, remodeling, landscaping or other activities, when such activities are not designed to permanently eliminate lead-based paint hazards, but are designed to repair, restore, or remodel a given structure or dwelling, even though these activities may incidentally result in a reduction or elimination of lead-based paint hazards. Furthermore, abatement does not include interim controls, operations and maintenance activities, or other measures and activities designed to temporarily, but not permanently, reduce lead-based paint hazards. (40 CFR 745.223).
- Module 3 has information on the pre-renovation education requirements.
- Details on the RRP Rule are in the slides following.

U. S. Dept. of Housing and Urban Development (HUD):

- If you work in Federally-assisted target housing, certain actions are required to address lead hazards. In these cases, the workers must have proper training. See Appendix 2 for more information on the HUD 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 nearby 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.

U. S. Occupational Safety and Health Administration (OSHA): OSHA has a Lead in Construction Standard which outlines worker protection requirements. Your employer should be aware of these. For more information, on the OSHA Lead in Construction Rule, see 29 CFR 1926.62 (<http://www.osha.gov/Publications/osha3142>).

State and Local Regulations: State and local regulations may also apply to the renovation work you do. Where applicable, these requirements will be covered at the end of this module.

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.**

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EPA's Renovation, Repair and Painting Final Rule:

- Published April 22, 2008, under the authority of the Toxic Substances Control Act (section 402(c)(3) of TSCA).
- The final rule addresses lead-based paint hazards created by renovation, repair and painting activities that disturb lead-based paint in “target housing” and “child-occupied facilities.”

Target Housing is a home or residential unit built on or before December 31, 1977, except:

- Housing designated for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing).
- Any zero-bedroom dwelling (e.g. studio apartments, hospitals, hotels, dormitories, etc).

A Child-Occupied Facility is a pre-1978 building that meets all three of the criteria below:

- Visited regularly by the same child, under 6 years of age.
- The visits are on at least two different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 hours.
- Combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours.

Child-occupied facilities may be located in a public or commercial building or in target housing.

These facilities include schools, child care facilities, and daycare centers.

- **State Authorization:** EPA may authorize states, territories and tribes to enforce all aspects of the RRP Rule. Such states are called “Agreement states.” EPA enforces the Rule in non-Agreement states.

The Rule Requires:

- Training providers must be accredited.
- Renovation firms must be certified.
- Renovators and dust sampling technicians must be trained and certified.
- Non-certified workers must work under and be trained on-the-job by a Certified Renovator.
- Work practices must be followed for work covered by the rule.
- Renovators must educate owners/occupants (Module 3).

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 exclusion does not apply to window replacement, demolition or activities involving prohibited practices.*
- **Renovations performed by homeowners in their own homes.**

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The Renovation, Repair, and Painting rule does not apply to renovation work that meets the following exclusions.

- If the renovation only affects components that do not contain lead-based paint, the rule does not apply to renovation of these components.
- EPA has established limits (see below) for minor repairs or maintenance. Work that does not exceed these limits is exempt from the work practice requirements in the Rule. The EPA limits for minor repairs and maintenance are larger than the HUD limits (see the HUD box below).

Minor repair and maintenance activities have been defined in the Rule.

- EPA has defined minor repair and maintenance activities as below.
 - Interior work disturbing less than 6 square feet (6 ft²) per room of painted surface is exempt from the work practices requirements in the Rule. Cleanup and cleaning verification are not required after minor repair and maintenance activities, unless they involve window replacement, demolition, or prohibited practices.
 - Exterior work disturbing less than 20 square feet (20 ft²) of painted surface is exempt from the work practices requirements in the Rule. Cleanup and cleaning verification are not required after minor repair and maintenance activities, unless they involve window replacement, demolition, or prohibited practices.
 - Minor repair and maintenance activities do not include window replacement, demolition or activities involving prohibited practices.
 - The entire surface area of a removed component is the amount of painted surface disturbed. Work, other than emergency renovations, performed within a 30-day period must be considered the same job when determining the amount of paint disturbed.



The HUD Lead Safe Housing Rule applies to every home built prior to 1978 that receives Federal housing assistance, typically provided through state and local governments, where greater than HUD's *de minimis* amounts of painted surfaces will be disturbed. HUD's *de minimis* amounts are: 2 square feet of interior lead-based paint, 20 square feet of exterior lead-based paint or 10% of the total surface area on an interior or exterior type of component with a small surface area that contains lead-based paint. Examples include window sills, baseboards, and trim.

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.

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- No firm working in target housing or child-occupied facilities, where lead-based paint will be affected by the work, may perform, offer or claim to perform renovations without Firm Certification from EPA, or an EPA-authorized agreement state, territory, or Indian tribe.
- One EPA renovation firm certification is all that is needed for a renovation firm to work in any non-authorized state/territory/tribal area. Firm certification is not the same as the personal certification attained by each renovator's successful completion of this course.
- States, territories and tribes may seek authorization from EPA to operate their own programs. Also, states, territories and tribes, whether authorized by EPA or not, can establish additional requirements for firms working within their jurisdictions. Be sure to determine if your state, territorial or tribal government has additional regulations that may affect renovation in your community.

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.

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- The Certified firm must ensure that everyone on the renovation, repair or painting job is trained to perform lead-safe work practices during the work. EPA requires all persons on the job to be trained. The person responsible for lead-safe work practices must be a Certified Renovator. Other firm employees (non-certified renovation workers), working on the job, must be trained on-the-job by Certified Renovators, or must be Certified Renovators themselves. This could be accomplished by:
 - Having all employees trained as Certified Renovators; or,
 - Having at least one person trained as a Certified Renovator, who will then train the rest of the employees in lead-safe work practices. Note that this training must be performed by a Certified Renovator.
- The Certified Firm must designate a Certified Renovator: to conduct set-up activities; to insure that the renovation is performed in accordance with work practice standards; to verify work and cleanup activities using the cleaning verification procedure; and, to train non-certified renovation personnel on-the-job in lead-safe work practices.
- The Certified Firm must ensure that the renovation is performed in accordance with the work practice requirements in the Rule.
- The Certified Firm is responsible for complying with pre-renovation education requirements.
- The Certified Firm is also responsible for keeping all records including:
 - Pre-renovation education documentation (proof of receipt, proof of delivery, waivers, etc.);
 - Documentation of lead-based paint;
 - Training and certification records; and,
 - Cleaning verification records.Note: Recordkeeping is covered in detail in Module 7.

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.

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All renovations must be directed by Certified Renovators. Individuals may become Certified Renovators by completing an EPA-approved 8-hour training course in lead-safe work practices taught by an EPA-accredited training provider. Successful completion of that course will result in a 5 year certification as a Certified Renovator. To maintain certification, Certified Renovators must take an EPA-approved 4-hour refresher course taught by an EPA-accredited training provider, before their certification expires.

No application or fee is required to become a Certified Renovator. Instead, the course completion certificate serves as the renovator certification. A “copy” of the initial and/or refresher course completion certificate must be available on-site during the work.

States, territories and tribes may establish requirements for individual renovators working within their jurisdictions. Be sure to determine if your state, territorial or tribal government has additional regulations that may affect what you must do and where you may work.



HUD requires instructor-led training for all workers unless they are supervised by a certified abatement supervisor (who, under the RRP Rule, must also be a Certified Renovator).

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.

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The RRP Rule requires that an individual Certified Renovator be responsible for the renovation job regardless of the level of training and certification of the other persons working on the job. This individual Certified Renovator has the following responsibilities.

- Perform work and direct the work of non-certified renovation workers.
- Train all non-certified workers on-the-job in lead-safe work practices.
- Maintain copies of initial and/or refresher training certifications onsite.
- When requested, conduct testing for lead-based paint using EPA-recognized test kits or lead analysis of paint chip samples and report findings.
- Remain onsite during the sign posting, work area setup, and cleanup phases of work.
- When not on site, be available by telephone or pager.
- Make sure that the containment is maintained in a way that prevents the escape of dust and debris. This responsibility implies a need to determine which work practices should be used to minimize dust.
- Conduct the cleaning verification procedure to make sure that the work is complete and that the work area is ready to reoccupy.
- Prepare a summary of the work, maintain training and certification records, and certify that all work was done in a lead safe manner.

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.

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HUD has additional work practice requirements. See Slide 2-13.

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.



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Enforcement:

- EPA has the authority to seek civil fines of \$37,500 per offense and an additional criminal fine of \$37,500 plus jail time for knowing and willful violations of the Renovation, Repair, and Painting Rule requirements.
- EPA can also revoke certification for of a Certified Firm or a Certified Renovator who violates Renovation, Repair, and Painting Rule requirements.
- Note that violators may be both Certified Renovation Firms and non-certified contractors who are not aware of or have ignored the requirement to become a Certified Renovation Firm.

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.



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HUD requirements for federally assisted housing are similar to those in the EPA rules with some exceptions. In this curriculum the differences between the HUD rules and the RRP Rules will be highlighted when they occur by special text boxes containing the HUD logo. These boxes are located at the bottom of pages on which an EPA requirement and a HUD requirement differ. Appendix 2, contains an overview of the HUD requirements, and a table detailing differences between the rules.

The HUD "Lead Safe Housing Rule" covers pre-1978 Federally-owned or assisted housing and Federally-owned housing which is being sold. Housing owned and operated by a Federal agency other than HUD may be covered by this regulation.

HUD's rule does not cover "Child-Occupied Facilities" unless they are part of a residential property covered by the rule. This differs from the EPA Renovation, Repair and Painting Rule, which covers housing and child occupied facilities, whether or not they are federally-assisted. Wherever the EPA regulations and HUD regulations differ, the more protective standard must be followed.

HUD has many programs that provide financial assistance, for example: rehabilitation, community development, acquisition assistance, etc. HUD requires addressing lead-based paint hazards (such as peeling paint, friction and impact surfaces, and high lead dust levels) by linking those activities to the HUD financial assistance. When asking clients if the housing is receiving federal assistance, renovators should recognize that the assistance may come through a state or local government, community development corporation or other local entity, so they may have to ask the client to check into the ultimate source of the assistance funds.

HUD does not recognize on-the-job worker training alone, and generally requires all individuals performing interim controls (see Slide 2-12) of lead hazards in Federally-owned and Federally-assisted housing to complete a HUD-approved training course. HUD's training requirements for work other than abatement are satisfied by successful completion of this EPA/HUD jointly approved Certified Renovator Course.

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

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The HUD Lead Safe Housing Rule requires lead safe work for the activities listed on the slide. It specifies prohibited practices, requirements for protecting occupants, and preparing the work site. Special cleaning techniques must be used and clearance achieved.

Lead safe work practices are required during:

- Paint Stabilization – Renovation to repair non-intact painted surfaces (flaking, peeling, or otherwise damaged) by performing substrate repair (if needed), surface preparation and repainting. The result is an intact painted surface.
- Interim Controls - Interim controls are defined by HUD to include repairs, painting, temporary containment, specialized cleaning, clearance, ongoing lead-based paint maintenance activities, and the establishment and operation of management and occupant education programs.
- Rehabilitation – This is HUD's term for the renovation of properties.
- Standard Treatments - a set of measures that reduce all potential lead-based paint hazards in a dwelling unit when lead-based paint is presumed to be present (no lead-based paint evaluation is performed); all deteriorated paint is treated as a lead-based paint hazard.
- Ongoing Maintenance – Normal maintenance activities.

In Federally-owned/assisted target housing, all areas of deteriorated paint in the work area must be repaired. Work affecting less than the small – "*de minimis*" – amounts listed below is not required to follow the lead safe work practices and clearance requirements in the HUD Rule. HUD's "*de minimis*" limits are smaller than the limits for minor repair and maintenance activities in the EPA's Renovation, Repair and Painting Rule. HUD's "*de minimis*" amounts are:

- 2 square feet in any one interior room or space.
- 20 square feet on exterior surfaces.
- 10% of the total surface area of small interior or exterior component type.

HUD's clearance requirements are covered in Module 6. In general, clearance is required after all work above HUD's *de minimis* amounts, and is performed by a certified professional, such as a Lead Inspector, Lead Risk Assessor, or Dust Sampling Technician, who is independent of the Certified Renovation Firm. State and local jurisdictions may have different clearance requirements than HUD's and EPA's; the most stringent requirements must be used.

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)

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The HUD Lead Safe Housing Rule (LSHR) covers renovation work in Federally-assisted or owned target housing, and specifically addresses the following lead safe activities.

Training: EPA requires that Certified Renovators be responsible for renovation projects. Because of this requirement, there are now two major training options for renovation work under the LSHR:

- All renovation workers on the job are trained as Certified Renovators; or,
- The designated Certified Renovator is also a Certified Lead Abatement Supervisor, and all workers who are not certified renovators have on-the-job training in lead-safe work practices (see Module 8).

Occupant Protection and Worksite Preparation: Occupants have to be kept out of the work area during the renovation work, and must be relocated from the unit during longer renovation projects. EPA-recognized test kits may not be used to test for lead-based paint (LBP); only a Certified Lead Inspector or Risk Assessor may determine whether LBP is present.

Prohibited Practices: HUD prohibits the same practices as the EPA RRP Rule, plus three more:

- Heat guns that char paint;
- Dry scraping or sanding except within 1 ft. of electrical outlets; and,
- Use of a volatile stripper in poorly ventilated space.

De minimis levels: HUD has a smaller *de minimis* threshold for interior work than EPA's limit for minor repair and maintenance activities. See the notes on the previous slide for details.

Clearance Testing: HUD requires a clearance examination after renovation work above the *de minimis level*, in homes regulated by the LSHR. HUD requires a clearance examination by a party independent of the renovator, and, therefore, does not allow acceptance of the Certified Renovator's visual inspection or use of the cleaning verification procedure. When the HUD LSHR applies to your work (see Appendix 2), a clearance examination must be performed by a certified professional such as Lead Inspector, Lead Risk Assessor, or Dust Sampling Technician. Some state and local authorities have different clearance requirements and standards.

Occupant Notification: HUD requires notices to be distributed to occupants within 15 days after LBP or LBP hazards in their unit (and common areas, if applicable) are identified, and within 15 days after completion of the hazard control work in their unit or common areas.

Know the EPA and HUD Rules!



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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



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Individuals and firms performing renovation, repair, and painting in pre-1978 dwellings and child-occupied facilities should understand the EPA Renovation, Repair, and Painting Final Rule.

Individuals performing renovation, remodeling, and rehabilitation in pre-1978 housing that is Federally-assisted, need to understand the HUD Lead Safe Housing Rule. Appendix 2 contains more information on the HUD Lead Safe Housing Rule.

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.

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Reserved for student notes on state and local regulations for renovation that differ from the EPA and HUD regulations.

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.

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