

A Contractor's Guide to the New Lead-Paint Regulations

What you need to know before you remodel an older home

by Martin Holladay



Contents

Introduction	2
Lead poisoning is mostly a problem with young kids	2
What the RRP rule says	3
Training and certification	4
Testing for lead paint	5
Communicate with the occupants or owners	5
The “opt-out” provision	6
Post signs on the job site	6
Provide on-the-job training	6
Set up a containment zone	7
Use tools that minimize dust creation	8
Clean up carefully and thoroughly	8
Verify that cleanup was adequate	9
Documentation and paperwork	9
Think the EPA rule is strict? Hold your breath for the HUD rule	10
Yes, there are critics	11
Will uncertified low-bidders steal clients?	11
What’s it going to cost me?	12
Talk to your insurance agent	12
Sidebar: Workers with kids need to take special precautions	12
Contract language	13
Sidebar: More information	13

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What you need to know **before you remodel an older home**



Don't stick your head in the sand. Uncertified remodeling or painting contractors who perform work in older buildings may be subject to penalties of \$37,500 per violation.

Routine remodeling work in most pre-1978 homes is now subject to new work rules established by the U.S. Environmental Protection Agency. Any remodeling work that disturbs painted surfaces must now comply with these new lead-safety regulations.

The EPA regulations, called the Renovation, Repair, and Painting (RRP) rule, took effect on April 22, 2010. So if you work in older homes and you haven't paid any attention to the new rule, you're probably breaking the law.

Enforcement of the new rule took effect Oct. 1, 2010; the fine for noncompliance is a whopping \$37,500, so it pays to abide by this law.

Lead poisoning is mostly a problem with young kids

According to the Centers for Disease Control and Prevention (CDC), more than 250,000 American children under the age of 6 have elevated blood lead levels. In a significant number of these cases, the elevated lead levels were caused by renovation work that disturbed painted surfaces in older homes. The EPA estimates that each year 1.4 million American children under the age of 6 live in homes that are renovated.

Lead-containing dust can be ingested through the lungs or the stomach (by hand-to-mouth contact). Such dust is often spread by scraping, sanding, or demolition activities. (Intact and undisturbed painted surfaces are usually not a health hazard.) Although it's possible for adults or children above the age of 6 to be poisoned by lead, young children and pregnant women are the most vulnerable.

Lead-containing paint is very common in houses built before 1950. In the United States, lead paint for residential use continued to be sold until 1978.

In areas of the country where most homes are less than 30 years old—including parts of California, the Southwest, and the

Southeast—the RRP rule will have little effect on remodelers. In other areas of the country, particularly in urban areas and in much of the Northeast and upper Midwest, most homes fall under the rule’s provisions.

If you’ve been working in older homes, you have already been assuming liability for the results of your remodeling work. (In other words, you could have been sued if your work endangered a child.) Adopting lead-safe work practices will reduce rather than increase the likelihood that your remodeling work will be linked to a case of lead poisoning—thereby lowering rather than increasing your liability.

What the RRP rule says

The RRP rule applies to:

- Work performed by remodelers, painters, electricians, plumbers, HVAC contractors, and other trade contractors.
- Work in homes, schools, and day-care centers built before January 1, 1978—but not to work in newer buildings.
- Work (including painting, window replacement, or any type of demolition) that disturbs 6 sq. ft. or more of lead-based paint indoors, or 20 sq. ft. or more of lead-based paint outdoors.

According to the EPA, “Renovation is broadly defined as any activity that disturbs painted surfaces and includes most repair, remodeling, and maintenance activities, including window replacement.”

The RRP rule doesn’t apply to:

- Work performed by homeowners or occupants in their own home or apartment.
- Work performed in studio apartments (otherwise known as “zero-bedroom” apartments).
- Work that disturbs painted surfaces that test negative for the presence of lead.
- Painting performed without disturbing existing painted surfaces—that is, without any sanding, scraping, or other activities that generate chips or dust.

What you need to do to comply with the RRP rule:

- Get trained.
- Work for a remodeling company certified by the EPA (unless you are the sole employee of the remodeling company).
- Test painted surfaces in the work area for the presence of lead.
- Communicate with the building's occupants before beginning work.
- Post warning signs at the job site.
- Provide on-the-job training to uncertified workers.
- Erect plastic barriers to contain the work area.
- Use tools that minimize dust creation.
- Clean up carefully.
- Verify that cleanup was adequate.
- Document compliance with the requirements of the rule and save records for at least three years.

Get training

The National Center for Healthy Housing has a list of certified trainers throughout the United States (www.nchh.org/rrp/instructors.htm).

Training and certification

If you're a remodeler who wants to continue working in older buildings, you must take a one-day (8-hour) course called "Lead Safety for Renovation, Repair, and Painting." The cost of the course varies, but usually ranges from \$200 to \$300. Visit the Web site of the National Center for Healthy Housing (www.nchh.org) to find out who offers this training in your area.

Everyone who completes the course is considered to be a certified renovator. To perform renovation work in an older building, a company needs at least one certified renovator to be present at the job site or available by phone. Any noncertified workers on the job must receive on-the-job training from a certified renovator. This on-the-job training needs to be documented.

If you are a renovator who always works alone, you still need to be trained, but your one-person company doesn't need to be certified. Companies with employees need to be certified with the EPA, which costs \$300; the certification is good for five years. (This certification cost is in addition to training costs.) A company can't be certified unless at least one person at the company has been trained.

According to the EPA, the agency takes up to 60 days to reply to a contractor's application for certification. If the application contains any errors, the response time may be even longer. Contractors can check the status of an application for certification by calling the EPA at 800-424-5323.

Testing for lead paint

The EPA has determined that simple spot-testing kits are accurate enough for most renovation work. Renovators are required to test painted surfaces in the areas where they intend to work.

Only test kits acceptable to the EPA can be used. Acceptable test kits are listed at the EPA Web site. As of this writing, the EPA has approved three lead-test kits: the LeadCheck kit from Hybrivet Systems, the D-Lead kit from ESCA Tech, Inc., and the state of Massachusetts kit, which is available only to certified Massachusetts state lead inspectors and risk assessors; renovators may not use them.

Although the kits should be available from big-box stores (including Home Depot), some shoppers report that the kits are currently in short supply.

Communicate with the occupants or owners

Before beginning renovation work, have a conversation with the building's occupants. During this conversation, you should:

- Ask them to share the results of any previously conducted lead tests.
- Give them a copy of the EPA pamphlet "Renovate Right" (available online at http://epa.gov/lead/pubs/renovateright_brochure.pdf).
- Get them to sign a form acknowledging receipt of the pamphlet.
- Give them a copy of your EPA or state lead-training certificate.
- Explain the scope of the job, as well as the expected start and end dates for the work.
- Explain what lead-safe methods you will use to complete the job.

Lead-test kits

EPA's approved test kits can be found at www.epa.gov/lead/pubs/testkit.htm.

- LeadCheck (www.leadcheck.com)
- D-Lead (www.esca-tech.com)
- State of Massachusetts kit

The “opt-out” provision

A controversial provision of the RRP rule—removed at the last minute—would have allowed some homeowners to let remodelers perform work without following lead-safe practices. The “opt-out” clause was challenged in court by the National Center for Healthy Housing and the Sierra Club.

Now that the opt-out provision has been stricken from the rule, renovators must eliminate all references to the provision from their agreements.

Post signs on the job site

Before beginning any renovation work, you need to post signs to warn everyone except renovation workers to stay away from the work area.

These signs:

- Must be posted by a certified renovator.
- Must be posted in a location where they are likely to be seen.
- Must describe the type of work that is planned, the location of the work, and the dates of the work.
- Must be in the language used by the building’s occupants.
- Must stay posted until all of the dust has been cleaned up at the end of the job.

A sample job-site sign can be downloaded at www.finehomebuilding.com/lead-safe.

Provide on-the-job training

Before work begins, the certified renovator must provide on-the-job training to any uncertified workers on the site. This training must be adequate to ensure that the lead-safe work practices mandated in the RRP rule are followed. Go to www.finehomebuilding.com/lead-safe to find video teaching aids, article packages, and checklists for lead-safe remodeling.

A certified renovator must either remain at the job site while any renovation work is underway, or be available by telephone.

Set up a containment zone

Before any paint is disturbed, the work area must be isolated from the rest of the house. This is done by installing barriers—typically constructed of 6-mil polyethylene with taped seams, although the thickness of the plastic is not specified in the RRP rule. A certified renovator must be on the site while the poly barriers are installed.

The purpose of the barriers is to ensure that no dust or debris leaves the work area. In other words, the polyethylene must be installed so that it is dust-tight. Blue painter's tape works best for attaching plastic to existing finishes because it won't pull old paint off the walls when it is removed.

All HVAC registers, diffusers, and grilles should be sealed with polyethylene and tape. If possible, all furniture and possessions should be removed from the work area before work begins. If furniture can't be removed, it should be wrapped in plastic. Then the floor and any remaining furniture should be covered with plastic taped in place.

All doors and windows (except the door or window through which workers enter) must be closed and sealed with plastic.

Two layers of floor plastic are better than one. When it's time to clean up, the top layer of floor plastic will be used to wrap up the dust and debris, leaving the bottom layer for protection during later stages of remodeling.

When leaving the work area, workers must take precautions to ensure that they (as well as any tools or items being carried) are free of dust or debris.

It's best to organize your work so that all demolition and scraping happens first, before any other work begins. Once the demolition and scraping work is complete, clean up before proceeding.

If you're working outdoors, you need to use the following work practices:

- Close all doors within 20 ft. of the work area, and seal these doors with plastic sheeting.
- Cover the ground with plastic sheeting. In most cases, one side of the sheeting should be secured to the house. The plastic should extend at least 10 ft. beyond the work area, or farther if necessary, to catch falling chips and dust.
- If other buildings are close to the work area, or if the weather



Set up a containment zone. Interior projects need a 6 ft. buffer zone that can catch dust and chips. Black plastic is a good choice on floors because chips and dust are more visible.



Contain paint chips at the edges. Turn the plastic edge up and support with lumber. Attach plastic to the house with furring strips, nails, and tape.



A light mist of water keeps dust down. Use a garden sprayer to mist down areas to be cut into and removed. Be careful though—wet plastic is slippery underfoot.



Wrap it up. When lead-removal activities are through, vacuum, mop, and wrap the floor plastic for disposal. For interior jobs, two layers of plastic are a good idea. The top layer can be the cleanup layer, and the remaining layer provides unrelated remodeling-dust-control protection.

is windy, other precautions (including vertical containment) may be necessary.

The RRP rule is vague about what to do in windy conditions. Some painting contractors wonder if paint-scraping activities will need to stop suddenly every time the wind shifts or picks up. After contractors gain more experience implementing these practices, better guidance may emerge. In general, though, it makes sense to follow a couple of commonsense steps:

- Don't scrape on very windy days.
- Upturn the edge of the containment zone plastic to capture swirling dust and paint chips.

Use tools that minimize dust creation

Tools and work practices must minimize dust or fume creation:

- If you must scrape a painted surface, mist the area with water first so you are "working wet."
- Never use a heat gun unless temperatures are limited to a maximum of 1,100°F.
- Never use a propane torch on a painted surface.
- Never use a power sander or a power plane on a painted surface unless the tool is equipped with a High-Efficiency Particulate Air (HEPA) dust collection system. There is no prohibition against the use of a circular saw.

The use of chemical strippers (like Peel-Away) is permitted.

Workers need NIOSH-rated N100 respirators or HEPA respirators—not just common dust masks. (Disposable N100 respirators can be bought for as little as \$8.)

While the use of disposable Tyvek suits is recommended, they are not required by the RRP rule.

Clean up carefully and thoroughly

During the renovation work, workers should wash their hands carefully before smoking or touching food. If workers aren't using Tyvek suits, they should change out of their work clothes at the work site before returning home to their families. Work clothes should be laundered separately from other clothes.

All debris must be picked up and bagged daily. Cleanup requires the use of a vacuum cleaner equipped with a HEPA filter. The end-of-the-job cleanup must be supervised or performed by a certified renovator:

- Collect all paint chips and debris—this can be done by enclosing the debris in the top layer of plastic floor sheeting—and seal the waste in a heavy-duty bag. It's best to mist the debris on the floor with water before gathering up the waste.
- In most states, the debris and waste can be disposed of with regular trash, as long as the bags are carefully sealed. In a few states the debris may need to be handled as hazardous waste.
- When bagged waste is transported, take care to ensure that no dust or debris is released.
- Vacuum the walls and other surfaces in the room with a HEPA vac, and then wipe down the walls with a damp cloth or a damp mop.
- Vacuum the floors with a HEPA vac and then mop the floors using a disposable damp mop, such as a Swiffer, or the two-bucket mopping system.
- At the end of the cleanup, there should be no remaining debris or dust.



Final cleanup. After wrapping and bagging the floor plastic, vacuum and mop the floor. Use a disposable wet wipe to compare cleanliness to the cleaning verification card provided by the EPA.

Verify that cleanup was adequate

After the end-of-the-job cleanup is complete, the cleanup needs to be verified—not by a third-party verifier, but by you.

Wipe the window stools, countertops, and uncarpeted floors in the work area with disposable wet wipes. Then compare each wipe to a “cleaning verification card.” If the color of the wipe is the same color or a lighter color than the color shown on the verification card, the surface passes the test.

Any surface that fails the verification test must be re-cleaned and retested.

Documentation and paperwork

You must keep a copy of your training course completion certificate with you at the job site.

The RRP rule also requires renovators to document compliance with each provision of the rule, and to retain the paperwork for at least three years.

To remind contractors of the necessary steps to comply with record-keeping requirements, the EPA has developed a one-page checklist (<http://epa.gov/lead/pubs/samplechecklist.pdf>).

Think the EPA rule is strict? Hold your breath for the HUD rule

Many remodelers will conclude that the requirements of the RRP Rule aren't very daunting for small jobs—for example, routine scraping or removal of a few painted pieces of trim. But if you are faced with a job requiring extensive demolition or paint removal, you may feel more comfortable subcontracting the work to a lead-abatement contractor.

It gets even more stringent if you're performing work in a federally funded housing project. You'll need to comply with the HUD Lead Safe Housing Rule (LSHR)—a tougher set of regulations than the EPA's RRP rule in many ways:

- Training—Either all workers must be certified or the lead renovator must be a certified lead abatement supervisor.
- Preparation—EPA-recognized lead-paint test kits cannot be used; instead, a certified lead inspector must determine whether lead paint is present.
- Prohibited practices—There are three more prohibited practices in addition to the practices prohibited by the EPA rule.
- Minimum-area threshold—For minor repairs and maintenance, the minimum affected area that triggers the need for lead-safe work practices is smaller under the HUD rule than under the EPA rule.
- Clearance testing—HUD does not accept visual inspection by the renovator (essentially self-clearance) but requires clearance from a third-party certified inspector.
- Notification—HUD requires pre- and post-work notification to all occupants; the EPA only requires notifications to owners.

There is a summary table of these differences in appendix 2 of the "Model Certified Renovator Initial Training Course Student Manual" (www.epa.gov/lead/pubs/rrp_8hr_app2_feb09.pdf).

Yes, there are critics

Some remodelers have been critical of the new RRP rule, alleging that:

- The EPA did an insufficient job of notifying remodelers, many of whom are unaware of the new rule.
- There is a shortage of trainers.
- The EPA has been slow to certify remodeling companies.
- The accuracy of lead-test kits is in dispute.
- The rule will put certified renovators at a disadvantage compared to uncertified renovators.

Regardless of one's position on these issues, however, a few facts are worth noting:

- The RRP rule was finalized and published in 2008, so renovators have had two years to get ready.
- A quarter of a million American kids suffer from the effects of elevated blood lead levels.
- The lead-safe work practices mandated by the rule not only protect kids—they also protect renovators, by reducing the chance that their work will cause poisoning.

Jonathan Rodriguez, a San Francisco attorney familiar with mold and lead issues, advises remodelers to embrace the new regulations. "This is a good thing," says Rodriguez. "The EPA has laid it all out. It's burdensome, but it's the law. So you tell your clients, 'We don't have a choice; we have to do this. You will have to pay a premium for it. This is the cost of doing the work.' There is no ambiguity now."

Will uncertified low-bidders steal clients?

If you are worried that you'll be plagued by unfair competition from low-bidding uncertified contractors, your best weapon is good communication with your prospective clients. After you explain the dangers of lead dust, parents are unlikely to endanger their kids by choosing an uncertified contractor.

Workers with kids need to take special precautions

- An all-too-common way for children to be exposed to dangerous levels of lead is through exposure to dust carried home on the dirty work clothes of one of their parents. If your work includes demolition in old buildings and you don't wear a Tyvek suit, it's important to change your clothes before you come home to be greeted at the door with a hug from your toddler.
- When your work day is over, change into clean clothes at the work site—ideally in a dust-free location. Place your dirty clothes in a sealed trash bag. Then wash your hands and face with soap and water.
- The clothes should be washed separately from other clothes; when transferring the clothes from the trash bag to the washing machine, do your best to limit the spread of dust.
- For those who conclude that this routine is cumbersome, the alternative is to wear a disposable Tyvek suit when working with components with lead-based paint.

What's it going to cost me?

Many contractors have expressed exasperation over official EPA estimates of the incremental cost of lead-safe work practices. According to the EPA, "For jobs where lead-based paint is present, EPA has estimated that the costs of containment, cleaning, and cleaning verification will range from \$8 to \$167 per job, with the exception of exterior jobs where vertical containment would be required. These are incremental costs attributable to the rule." These seemingly low estimates are based on EPA's assumption that many remodelers are already taking dust-control measures on interior jobs.

Because contractors need to get trained, buy a HEPA vac, purchase and use lead-test kits, and buy (and dispose of) many rolls of 6-mil plastic, the EPA's estimate seems widely off the mark. "If the EPA was my estimator, I would go broke the day after I started using them," comments Bob Hanbury, a Connecticut remodeler. Hanbury estimates the new rule can add up to 50% to a small bathroom remodel because of lost productivity, along with daily setup and cleanup costs.

According to estimates by **Remodeling** magazine (www.remodeling.hw.net/lead-paint/how-much-will-the-rrp-cost.aspx), the cost will fall somewhere in between. The article notes, "Assuming that direct costs for a typical bathroom are about \$10,000, the RRP adds between 5.3% and 11.2% to direct job costs, plus an additional percentage point or two for overhead"—in other words, \$630 to \$1,320 in direct costs for a \$10,000 job.

The costs of implementing the new rule are likely to fall particularly heavily on window-replacement contractors, who may need to erect 10 or 12 lead-containment barriers at a single house.

You can listen to an interview with Bob Hanbury at www.finehomebuilding.com/lead-safe in which he talks about tools, OSHA, costs, and the difficulty of obtaining liability insurance that covers lead-safe remodeling.

Talk to your insurance agent

Most contractors have general liability policies that already exclude claims associated with lead paint. If your insurance

More information

Go to www.finehomebuilding.com/lead-safe to find all you need to comply with the new RRP rule:

- Training videos covering interior and exterior practices: work zone, containment zone, personal protection, cleanup, and verification
- Interviews with Connecticut remodeler Bob Hanbury on the topics of tools, OSHA, cost, and liability insurance
- A downloadable job-site sign that you can print and post on site
- A compliance toolkit with checklists, disclosure forms, pamphlets, and trainer links
- Special reports for contractors and consumers
- Article packages from **Fine Homebuilding** on lead-safe remodeling, dust control, and personal protection
- Painting tips and videos

policy has such a “lead pollution” exclusion, you’ve probably been working for years without any coverage for these claims.

Following the lead-safe work practices outlined in the RRP rule should reduce rather than increase your liability. Nevertheless, if you want to know more about the coverage offered by your liability policy, you should talk to your insurance agent.

To obtain coverage for lead pollution, you may be forced to shop for a “special risk” policy in the so-called secondary market. “Some of the companies offering these policies are offshore firms from the Cayman Islands,” says Bob Hanbury. “I’m a little leery of some of them.”

According to an article in **Replacement Contractor** magazine (www.replacementcontractoronline.com/industry-news.asp?sectionID=0&articleID=1186994), lead-pollution liability coverage is likely to cost \$1,800 to \$5,000 per year; most contractors are likely to pay about \$2,500 per year. Such policies typically carry a \$5,000 deductible.

Although the use of lead-safe practices should make remodeling safer, some contractors worry that the specificity of the RRP rule amounts to a lawyer’s roadmap. “We’ve always had the potential liability for lead poisoning,” notes Hanbury. “But now there is a specific standard of care—so if you do get sued, the lawyer has a sword to hold over your head. Do you have all the necessary documentation on file? Can you prove that you implemented all 27 items required by the EPA? This rule may provide the tools that lawyers need to prove that you are negligent.”

Contract language

The three most important sections of a remodeling contract detail the scope, cost, and time required for the planned work. Since all three elements are affected by the RRP rule, it makes sense for your standard contract language to include a reference to the rule.

It’s wise to talk to your lawyer to be sure your standard contract properly references the RRP rule.