# RRP Compliance for Small Jobs

Before starting work, the author tests painted surfaces with a portable XRF analyzer to find out whether lead levels are high enough to require RRP compliance.

## You can work safely and still compete with uncertified remodelers by understanding the rule

by Dean Lovvorn

By the EPA's estimates, 80 percent of contractors who are working on pre-1978 housing are still uncertified under the Renovation, Repair, and Painting (RRP) rule. Competing against those guys is tough, because they don't have to factor compliance costs into their bids. So we've developed some practical strategies for our small remodeling company that have reduced our costs and made lead-safe remodeling less of a burden. This makes our bids more competitive and has allowed us to close on a higher percentage of jobs than we did when we first became RRP certified. If you take the time to read the rule — as we did — you'll see that it's not necessarily difficult or time-consuming to work safely and legally around lead-based paint.

### Know the Law

Back when the RRP was first introduced, I asked a representative of a large replacement window installer how the new rule was going to affect his company's business. He explained that staff members had examined the law carefully and found ways to reduce compliance costs to about $25 per window, a cost that they felt they could absorb. They weren't even going to mention RRP in their sales pitch.

To find out how this company could do that, I studied the law more closely. What I discovered is that a lot of what is taught in the usual day-long renovator course can't

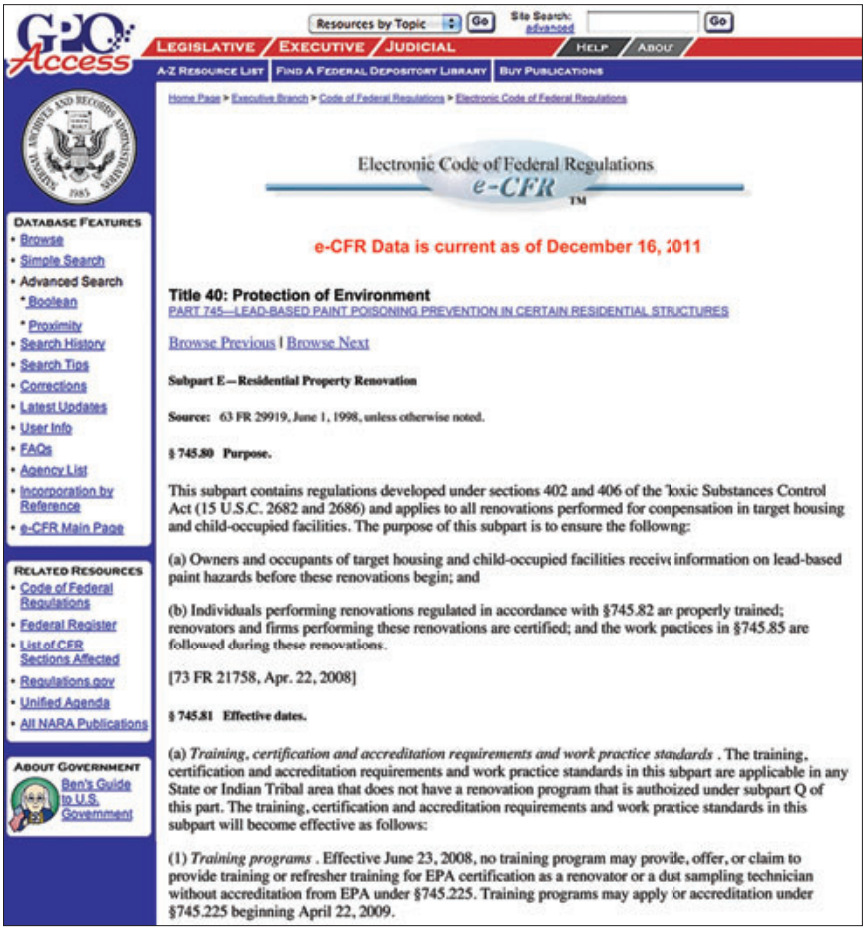
| Percentage of Pre-1978 Housing With Lead-Based Paint | |
|---|---|
| pre-1940 | 68% |
| 1940–1959 | 43% |
| 1960–1978 | 8% |

According to a 2000 HUD survey, a quarter of all U.S. housing stock — or 24 million mobile, single-family, and multifamily homes — contains significant lead-based paint hazards. Homes in the Northeast and Midwest are twice as likely as homes in the South and West to be affected.

be found in the rule itself.

The original course manual — a joint collaboration between the EPA, HUD, and CDC (Centers for Disease Control) — was written before the final rule was published, so the course incorporates various work and safety methods that meet HUD and OSHA requirements but don't apply to many renovators and contractors. Compounding the confusion, many course instructors simply don't know the rule very well.

For example, disposable suits and booties are routinely discussed in the course, but they're not mentioned in the actual law. When I took the course, my instructor taught the class that if we were replacing several interior doors, we would need to cover the floors in the rooms on either side of each door with plastic, move furniture out of the rooms, cover the vents, and seal off the windows and any other doors — plus wear disposable suits, masks, hats, gloves, and booties while on the job. In reality, though, that project doesn't even require RRP compliance. If the only paint being disturbed is on the door hinges, the job falls under the RRP's minor repair and maintenance exception. Other cases where RRP compliance probably isn't needed include installing gutters, shutters, crown molding, and even new siding over original siding.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**Title 40: Protection of Environment**
PART 745—LEAD-BASED PAINT POISONING PREVENTION IN CERTAIN RESIDENTIAL STRUCTURES

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**Subpart E—Residential Property Renovation**

**Source:** 63 FR 29919, June 1, 1998, unless otherwise noted.

**§ 745.80 Purpose.**

This subpart contains regulations developed under sections 402 and 406 of the Toxic Substances Control Act (15 U.S.C. 2682 and 2686) and applies to all renovations performed for compensation in target housing and child-occupied facilities. The purpose of this subpart is to ensure the followng:

(a) Owners and occupants of target housing and child-occupied facilities receive information on lead-based paint hazards before these renovations begin; and

(b) Individuals performing renovations regulated in accordance with §745.82 are properly trained; renovators and firms performing these renovations are certified; and the work practices in §745.85 are followed during these renovations.

[73 FR 21758, Apr. 22, 2008]

**§ 745.81 Effective dates.**

(a) *Training, certification and accreditation requirements and work practice standards* . The training, certification and accreditation requirements and work practice standards in this subpart are applicable in any State or Indian Tribal area that does not have a renovation program that is authoized under subpart Q of this part. The training, certification and accreditation requirements and work practice standards in this subpart will become effective as follows:

(1) *Training programs* . Effective June 23, 2008, no training program may provide, offer, or claim to provide training or refresher training for EPA certification as a renovator or a dust sampling technician without accreditation from EPA under §745.225. Training programs may apply for accreditation under §745.225 beginning April 22, 2009.

The RRP rule can be found at epa.gov/lead. Look for the link that says "Renovation, Repair and Painting" (under the heading "On this Web site") and click on it. Then click on the link that says "Read EPA's Regulations on Residential Property Renovation at 40 CFR 745, Subpart E."

Basically, the rule requires that contractors contain the work area, minimize dust, and clean up thoroughly. On pre-1978 housing, you need to follow RRP work rules whenever you're disturbing more than 20 square feet of paint on the exterior or 6 square feet (per room) of paint on the interior. If you can show by testing that the paint contains no more than 1 mg/cm$^2$ (0.5 percent by weight) of lead, the RRP doesn't apply. Otherwise, the rule requires that you do the following:

- Create a containment area, usually by covering the ground or floor with plastic. On exterior projects, the containment area must extend at least 10 feet around the perimeter of the work area; if the neighboring property line is within 10 feet, vertical containment is also required. On interior projects, the floor should be covered to at least 6 feet from the work area. It's up to the renovator to determine if the containment area needs to be extended to catch all of the dust and debris, or whether vertical containment is needed.
- Remove furniture from the containment area or cover it with plastic, sealing the edges with tape.
- Close windows and doors in the containment area; doors should also be covered with plastic. Entry doors into the work area must be able to contain dust and debris.
- Cover and seal hvac vents within the

containment area with plastic.
- Post appropriate warning signs.
- Follow proper cleanup and recordkeeping procedures.

## Strategy for Compliance

Our company happens to be a partnership that I run with my son-in-law. When we're working on a project where we're disturbing lead-based paint, we first do all the demolition and cleanup following RRP procedures, then we turn the job over to subcontractors as needed. We don't have to worry about RRP compliance on the part of our subs, because they won't be disturbing any lead paint; we've already taken care of it. And we don't have to worry about OSHA, because we have no employees.

***Personal protection.*** We rarely wear disposable suits while doing this work, but we definitely take precautions to protect ourselves from lead dust, including wearing half-faced NIOSH N-100 respirators, safety goggles, and hats. When we're finished for the day, we change shirts and HEPA-vac our pants and shoes, and when we get home we strip before entering the house and immediately take showers. We wash work clothes separately from other clothing.

**Unknown Lead Based Paint Conditions**

Federal laws 40 CFR Part 745 Subpart E and/or 24 CFR Part 35 Subpart B thru M require that when a painted or stained surface is disturbed on a home built before 1978, one of the two following things must be done before work can begin.

1. Provide a lead test report showing that the components are free of lead-based paint, per the EPA/HUD definition.

2. Or assume the components being disturbed have lead-based paint and take appropriate compliance steps.

Since compliance can create additional cost, once you have decided to use us and the contract is accepted, we will pay and arrange for a limited lead inspection before work commences. There is no cost to you.

If no lead-based paint (per EPA/HUD definition) is found on the components being disturbed by us, we will place you on the schedule.

On the rare case that lead-based paint is found, we will calculate the additional costs and present them to you. If you find that the additional costs are outside your budget, you are free to cancel the contract, your deposit will be returned to you and no cancellation fees will apply.

*Note: You can verify that this law exists by going to www.epa.gov/lead/pubs/renovation.htm or by calling the National Lead Hotline at 1-800-424-5323. This federal law applies to all contractors. If another contractor has not mentioned this law, they will be operating illegally. Homeowners need to understand that there are certain risks in using illegal and non-certified contractors.*

When bidding on jobs with potentially high RRP compliance costs, the author omits those costs from his estimates but includes language in his contract that specifically addresses lead hazards and their impact on the project budget.

## Selling RRP Jobs

By knowing the law and avoiding unnecessary procedures, we've managed to pare compliance costs to less than 10 percent of the total budget on most jobs. When I'm estimating these jobs, I don't even mention lead or the RRP to prospective clients. I always give owners the "Renovate Right" booklet, but only after I have a signed contract and am about ready to start demo. I've found that this helps in selling an RRP job, since most potential customers don't really care if I'm a certified renovator or not. They want to tell me about their ideas, not hear how the new rule will make their project more expensive or how they might be poisoned by lead.

Siding removal, exterior painting, and whole-house renovations are the kinds of projects where RRP costs can easily exceed 10 percent of the total cost. I still compete for these jobs, but I use different sales strategies for different types of clients. For example, repeat and referral customers generally trust me to do the work right and often don't get competitive bids. In these cases, I keep my mouth shut about the RRP and give them a fair price with compliance costs added in. Usually, they'll sign the contract.

On the other hand, when I'm selling a job with potentially high compliance costs to a new customer, the estimate won't include compliance costs. Instead, I include a clause in the contract dealing with unknown site conditions, in which I inform the client of the potential for lead-based paint and additional charges for dealing with it (see excerpt, above). I make a point of highlighting this clause, and use it to introduce the RRP. I also explain that we'll test for lead to see if the RRP even applies. If testing confirms that there's no lead in the paint, the customer is spared compliance costs; if lead is present, I make it clear that the customer is free to cancel the contract without any financial penalties.

Some jobs are simply hard to sell, either because of the scope of the work or because of the nature of the client. I include compliance costs when bidding these jobs, so that I'm sure of getting paid a fair and decent wage to do lead-safe work if we're hired. Since I'm no longer coming in as just a

general contractor, but am also a lead-safe certified firm, I charge specialty rates for these jobs — typically about 50 percent more than for non-RRP work.

## Testing Options

In my area, only about 5 percent of homes built between 1940 and 1977 have interior lead-based paint; for exteriors, the percentage is higher — but it's still a lot less than 50 percent. This means that a client who opts to test for lead can often avoid compliance costs. Testing is done after the acceptance of the contract, and can be paid for by either the client or the contractor.

***Test kits.*** While certified renovators can do their own testing using LeadCheck swabs or D-Lead kits, this approach has certain limitations. The biggest is that these products — though they can reliably indicate the presence of lead on many surfaces — aren't accurate enough to determine the specific amount present. This is important because the lead content of the paint used in many homes built in the 1950s and later was often less than .9 mg/cm$^2$. Even if there's lead in the paint, the RRP doesn't apply if the amount is below the EPA's threshold of 1 mg/cm$^2$.

LeadCheck swabs (left) can indicate whether lead is present but can't determine the exact amount. After vacuuming, a verification card and handwipes are used to confirm that surfaces meet EPA standards (right).

One way to find exact lead content is to send a paint-chip sample to a lab for analysis. The RRP was changed recently to allow certified renovators to perform paint-chip sampling, but the procedure is invasive and potentially expensive (the cost for each sample runs around $20).

***XRF testing.*** In the hands of a certified operator, a portable X-ray fluorescence (XRF) analyzer can quickly determine lead levels in many surfaces without cutting into the paint or coating. The cost for testing is reasonable — typically in the $100 to $150 range for a limited inspection. It's well worth the cost if the test confirms that there's no lead present. I've become such an advocate of lead testing that I became a licensed lead inspector and purchased an XRF analyzer (a good machine costs about $20,000). When I do lead testing for other contractors in the Dallas–Fort Worth area, I check only those components that will be disturbed — not the whole house — which helps lower the inspection cost.

## Compliance in Action

Just how easy it is to comply with the RRP is illustrated by a bathroom remodel that we recently completed (**see photos, left**). To set up containment and minimize dust, I covered the bathroom floor and the floor just outside the bathroom with plastic sheeting, sealed off an adjacent closet door with plastic, and put up a warning sign. The 3.5-mil plastic and tape cost about $15, and the prep took about an hour.


Before performing the demolition phase of this bathroom remodel, the author covered the floors, doors, and adjacent appliances with plastic, then posted his warning signs. Because he completed the RRP and cleanup phase of the project immediately after demolition, complying with the lead rule cost only about $35 in materials and required two hours of labor.

During the demolition, I hauled the tile and debris out using trash cans with tops

on them. (Heavy-duty bags are required during the final cleanup stage, but not necessarily during demo.) On larger jobs, we'll cut demolition waste into pieces small enough to fit into the trash cans; one person loads the trash cans inside the containment area, while the other stays outside the containment area and hauls the cans to the dumping area.

When we were done disturbing the bathroom's painted surfaces, I vacuumed up leftover dust and debris using a Pullman-Holt HEPA vacuum (800/237-7582, pullman-holt.com), then performed final cleanup and cleaning verification. From that point on, we could rebuild the bathroom without thinking about RRP compliance.

Because the RRP has specific cleanup and verification procedures, it took us about 45 minutes longer to vacuum and wipe down the bathroom than it would have for a non-RRP job. Additional materials (above my normal material costs) were around $20, which included wet wipes and partial use of the vacuum's HEPA filter.

Finally, I filled out the recordkeeping checklist, which took around 10 minutes. On this project, which had a total labor charge of about $13,000, RRP compliance added about two hours of labor and $35 in additional materials cost, or around 1 percent to 2 percent of the total cost.

## Window Replacements

The RRP's 6-square-foot interior and 20-square-foot exterior exclusions don't apply to wood-window replacement jobs. (Bare aluminum and unpainted vinyl windows don't fall under the rule.) There's a bit of a gray area when sash are being replaced by window inserts, since only the stops are disturbed; but most certified instructors consider this a full replacement requiring RRP compliance on both the interior and exterior.

Fortunately, compliance is easy: Inside the house, I just cover the floor with plastic extending 6 feet in all directions from the window I'm working on; outside, the plastic must cover the ground at least 10 feet in all directions underneath the window. I close doors, vents, and other windows within the containment area and cover them with plastic, move (or cover) furniture, and put up my warning signs.

One technique that can reduce compliance costs for window replacements and other small interior projects is to set up vertical containment. A number of manufacturers now offer reusable dust-barrier systems that speed this process. Another method that works on some window replacements is to simply seal off the window and the wall that it's in — from floor to ceiling and from wall to wall — with a self-adhering plastic (Grip-N-Guard, 877/454-7477, gripnguard.com). This might work well in a window at the end of a hallway, for instance. If I can replace the window working from the outside, I don't have to cover the floor with plastic and do interior cleanup afterward.

## OSHA Lead Rules

OSHA lead regulations — which are far more comprehensive than RRP rules — take effect whenever airborne lead concentrations exceed 30 mg/cm$^3$ during any particular activity (the "action level") and there is at least one employee (or a subcontractor acting like an employee) on the job site. OSHA rules can apply even when the RRP doesn't, since paint with lead concentrations below RRP thresholds can still generate plenty of lead dust when sanded. In fact, lead dust can be present when there is no lead-based paint at all, because it can come from other sources, such as broken tile.

To be safe, there are some jobs where we follow OSHA procedures. On those jobs, we wear disposable suits, gloves, hats, booties, eye protection, and respirators. OSHA also requires a written compliance program, a clean area for changing clothes, and a hand-washing area. Blood monitoring, respirator fitting, training, site showers, extensive recordkeeping, and other OSHA procedures may also be required depending on the task and the number of employees.

To avoid the costs of OSHA compliance on every job, large companies often do testing and air sampling to determine that an activity — like sanding — won't exceed OSHA's 30 mg/cm$^3$ action level. For smaller companies like ours, wet-sanding instead of dry-sanding and using shrouded equipment hooked up to a HEPA vac are cost-effective practices that can often keep dust levels below OSHA action levels.

## Sources of Supply

**Castle Wholesalers**
(plastic sheeting)
301/699-2206
castlewholesalers.com

**D-Lead Paint Test Kits**
877/877-6590
esca-tech.com

**Dustless Technologies**
800/568-3949
dustlesstechnologies.com

**Enviro Safety Products**
800/637-6606
envirosafetyproducts.com

**Kachina Lead Paint Solutions**
888/800-5224
kachinaleadpaintsolutions.com

**Lead Check Swabs**
800/262-5323
3mleadcheck.com

**Protective Products**
800/789-6633
protectiveproducts.com


For this bay-window repair, the author covered the ground with 6-mil plastic (above), using stakes and plastic clips to keep the sheet secure (above right), then set up warning tape and posted signs (right).

## Exterior Jobs

Not all exterior jobs have high compliance costs. For example, on a recent bay window repair (**see photos, above**), all I had to do was cover the ground with 6-mil plastic, make sure doors and windows within 20 feet of the work area were closed, cover the doors with 3.5-mil plastic, and put up my warning signs.

When I was done, I simply wrapped the debris in plastic, carried it to my truck for disposal, and cleaned up the work area. It required about an hour of additional labor and $15 in additional material costs.

On larger jobs, we carefully plan the containment area to eliminate unnecessary steps. For example, when we're removing exterior siding or trim, I try to locate the dumpster or my pickup inside the containment area so that we don't have to wrap up the demo waste or put it into trash cans. This means the plastic sheeting has to be large enough to completely surround the dumpster or truck. The advantage is that we can fill the dumpster or truck bed, then cover the whole pile of debris at once before removing it from the containment area.

Vertical containment on exterior projects is now required when the property line is within 10 feet of a painted or stained surface that is being disturbed, thanks to a change to the RRP that took effect October 2011. Scaffolding covered with plastic sheeting would meet this requirement but would be labor-intensive, so we've been experimenting with some less-expensive approaches. So far our favorite is a quick and dirty 2x4 frame that can be propped against a gutter or roofline (**see photos, left**). We attach the plastic to the house side of the frame, which means we don't have to clean the 2x4s and can easily disassemble and use the frame on other projects.

To contain paint chips and dust in windy conditions or when the work site is closer than 10 feet to another building or property line, the EPA now requires vertical containment. This can be as simple as propping a plastic-covered 2x4 frame against the eaves.

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