



## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-1: Module 4 Clean Up and Check Your Work

- This is the module title slide.
- Announce the module title move quickly to the next slide.

**Overview of this module:** The table below summarizes the content and teaching methods for this module. This is for your reference. Do not cover this with the participants.

Module 4: Clean up and check your work		1 hour
<ul style="list-style-type: none"><li>➤ What is effective clean up?</li><li>➤ Clean-up tool kit</li><li>➤ Interior clean up</li><li>➤ Exterior clean-up</li><li>➤ Checking your work</li><li>➤ Safe disposal (optional demo or exercise)</li><li>➤ <u>Activity</u>: Hands on clean-up exercise</li><li>➤ <u>Activity</u>: Clearance demonstration</li></ul>	<p><u>Key message</u>: Clean up right. Use wet mops and HEPA vacuums. Traditional methods don't do the job.</p> <p><u>Notes</u>: Slides followed by an exercise</p> <ul style="list-style-type: none"><li>➤ Slides (30 minutes)</li><li>➤ Hands-on Exercise (30 minutes)</li></ul> <p><u>Preparing for this module</u>: Prepare materials for hands-on exercise and clearance demonstration.</p> <p><u>Materials needed</u>: Dust wipe sampling materials and tools listed in the Clean-Up toolkit.</p> <p><u>Options</u>: The trainer may choose to use the hands-on clean-up exercise later, as part of a comprehensive hands-on exercise (as shown in Lesson Plan #2). The trainer can also choose to demonstrate gooseneck sealing or have participants do it themselves. (Have necessary materials ready.)</p>	

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## Module 4

# Clean-up and Check Your Work

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## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-2 : Module 4 Overview

- Effective clean-up includes using specific techniques and following the proper order when cleaning. In this section participants will learn:
  - What an effective clean-up includes
  - What tools to always keep in your truck and at the work site
  - Effective techniques to clean after both interior and exterior jobs
  - Safe disposal methods
  - How to check your work
- This module focuses on how to clean to pass a visual check. Visual check means that an area has been cleaned to the point that no dust, debris or paint chips can be seen with the naked eye, and it is the goal of every clean-up.
- **Remember**, because lead dust can be invisible, a visual check does not guarantee that you will pass a dust sample test.

## Module 4 Overview

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- ◆ What is effective clean-up?
- ◆ Clean up toolkit
- ◆ Interior clean-up techniques
- ◆ Exterior clean-up techniques
- ◆ How to check your work
- ◆ Safe disposal methods
- ◆ Keep in mind

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### What you will learn in this module

In this module, we will cover all the topics listed on the slide above.

- The goal of cleanup is to leave the work area as clean or cleaner than when you arrived so that, as a result of your work, lead dust is not left behind to poison the residents of the home.
  - At the end of this module, you will know how to check your work to ensure the work area is clean enough to pass a clearance examination, if it is required.
- By using the techniques described in the following pages of this module you will be able to clean a work area quickly and efficiently. Remember, approaching a clean-up is similar to approaching a job. Proper preparation and planning will help make your cleaning efforts more effective and faster.
- Always schedule time at the end of each day to clean thoroughly.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-3: What is Effective Clean-up?

- Discuss the similarities of clean-up and approaching a job. Explain that, just as you approach a job with planning, set-up and containment, you must approach cleaning by first having effective containment, then carefully following specific procedures to best clean the work area. The techniques outlined in this section should make your clean-up faster, more efficient, and more effective.
- **Remember:**
  - Always pass a visual check.
  - Proper disposal and checking your work are essential to the process of cleaning.
  - The most effective cleaning will follow this sequence:
    1. **Pick up** all visible paint chips and debris.
    2. **Clean and dispose** of protective sheeting.
    3. Slowly **HEPA vacuum** the work area, working from high to low.
    4. Thoroughly **wet clean**, working from high to low.
    5. **If necessary repeat** HEPA vacuuming or wet cleaning.
    6. **Visually inspect** your work.
    7. **Bag** all waste in heavy duty plastic bags, “gooseneck” **seal** and **dispose** according to Federal, State and local regulations.
    8. **Clearance**
- **Demonstrate how to “gooseneck seal” a heavy duty plastic bag and note that this will again be covered in the disposal section.**
- Discuss why this clean-up sequence should work well.
  - **Picking up all visible debris and paint chips** prepares a work area for the first HEPA vacuum.
  - **Clean and dispose of protective sheeting.** This step should come before HEPA vacuuming in order to collect any dust that may escape from the protective sheeting.
  - **HEPA vacuum the area from high to low.** This first HEPA vacuum will collect dust and debris not visible to the naked eye.
  - **Wet cleaning** the area will further dislodge any lead contaminated dust or debris not collected by the first HEPA vacuum. Wet cleaning also gets dust and debris that is “stuck” to surfaces.
  - **If necessary, a final pass with the HEPA vacuum or wet clean** will capture any remaining dust or debris left after the wet cleaning.
  - The last step should be to **check your work** and make sure that a visual check is achieved and all waste is bagged, sealed and disposed of in accordance with Federal, State and local laws. Performing a dust wipe test is recommended for all work.
  - Clearance is required by HUD in homes receiving Federal housing assistance. (See p. 4-7).

# What is Effective Clean Up?

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- ◆ **Containing dust during clean-up to the area that will be cleaned**
- ◆ **Using proper cleaning techniques**
- ◆ **Cleaning all surfaces, tools and clothing**
- ◆ **Checking your work**
  - This could include clearance testing
- ◆ **Safe and secure disposal**

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## Containment

- Effective cleaning begins with proper preparation and containment. Clean-up will be much easier and efficient if proper containment has kept all dust and debris confined to the work area. Also, containing dust to the area that is being cleaned is important.

## Proper cleaning techniques

- You should be careful not to spread dust and contaminate other areas while cleaning. Using the techniques outlined in this module and following the proper sequence will help ensure that you do not contaminate other areas while cleaning.

## Cleaning all surfaces

- “All surfaces” includes vertical surfaces such as walls and windows and horizontal surfaces such as floors, door tops and moldings, window troughs, and window sills. Cleaning should proceed from high to low, i.e., from top of wall to window to floor.

## Checking your work

- Always conduct a visual inspection after any job. Look for any visible paint chips, dust or debris.
- It is also a good practice to conduct clearance testing (also known as dust wipe sampling) to confirm that all the leaded dust was cleaned up. We’ll talk more about clearance tests on slide 4-7.

## Safe and secure disposal

- Bag and “gooseneck seal” all waste in heavy duty plastic bags. Safely dispose of all waste in accordance with State and Federal regulations.

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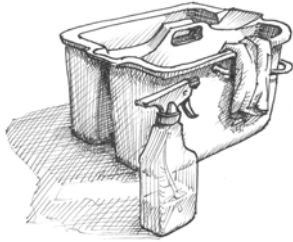
### **Module 4 Instructor Notes**

#### **Slide 4-4 : Clean Up Toolkit**

- This slide shows a list of cleaning tools that you should always keep in your truck.
- Some tips:
  - Be sure to change mop heads when necessary. You do not want to be mopping and cleaning with a dirty, used mop head as this could spread dust into other areas.
  - You need either a two-sided bucket or two single buckets to keep your wash and rinse water separate. Be sure to change your detergent and rinse water often. You will not clean successfully if you clean with dirty water.
  - Heavy duty garbage bags are heavy duty plastic bags.
  - For small jobs, disposable wipes are a good cleaning method.
- Ask participants if anyone uses tools that are not included in the list.
  - If so, what are they and what do they use them for?
  - This is a good time to mention that a shop-vac is not adequate for cleaning up lead dust.



## Clean Up Toolkit



- ◆ Vacuum with HEPA filter
- ◆ Misting bottle and pump sprayer
- ◆ Mop with disposable heads
- ◆ Detergent
- ◆ Two buckets or two-sided bucket
- ◆ Disposable hand towels
- ◆ Heavy duty garbage bags
- ◆ Duct tape
- ◆ Shovel and rake

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## Clean Up Toolkit

- The tools listed on the slide above are for cleaning interior and exterior jobs. Some tools, such as the pump sprayer, shovel, and rake are used primarily for exterior clean-up. Other tools, such as the buckets and mops are used primarily for interior clean-up.
- The following pages discuss clean-up for both interior and exterior situations.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-5: Interior Clean-up Techniques

- **Ask:** Why should you pick up paint chips and other debris before picking up the protective sheeting? Why should you mist down and wet wipe the protective sheeting before picking it up?

[Answer to both questions: to prevent accidental spreading of lead-contaminated paint chips and dust off of the protective sheeting]

- After the first visual inspection of the work area, cleaning, folding and disposing of the protective sheeting is the next step. Clean your protective sheeting with a HEPA vacuum and wet wipe if necessary. Once cleaned, fold and seal the sheeting and dispose with the rest of your waste. When you pick up and fold the protective sheeting be careful not to spread any dust that may remain on the sheeting.
- This process is followed by the HEPA vacuuming and wet cleaning (discussed on next slide) in order to get any dust that escaped the protective sheeting.

## Interior Clean-Up Techniques

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- ◆ **Pick up all paint chips with wet, disposable cloth**
- ◆ **Pick up protective sheeting**
  - Mist sheeting before folding
  - Fold dirty side inward
  - Tape shut to seal in dirty side
- ◆ **Dispose of protective sheeting at end of job**

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4-5

### Pick up

- Always begin a clean-up by picking up all paint chips and any visible debris with a wet disposable cloth.

### Protective sheeting

- Protective sheeting may be used again within the same work area if it has not already been folded (see pp. 47, Lead Paint Safety Field Guide). When the job is complete, clean protective sheeting using a HEPA vacuum. Protective sheeting should then be folded and taped shut. Always fold dirty side inwards, seal and place in heavy duty plastic bag. "Gooseneck-seal" the heavy duty plastic bag and dispose with the rest of your waste at the end of the job.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-6: Interior Clean-up Techniques

- Emphasize that workers should always clean at least two feet beyond the work area.
- Also, discuss why clean-up should always proceed from high to low.
  - [Answer: Cleaning from high to low is more efficient and effective because any dust or debris dislodged will fall down to the floor. Just as one would clean steps working from the top down, cleaning a work area should work from high to low to “push” all dust not collected down to the floor, which should be cleaned last.]
- These cleaning techniques and this sequence ensure that you pass a visual check. While there is no guarantee that you will pass a dust sample analysis, this process is highly effective in cleaning a work area and if followed, significantly decreases the risk of not passing a dust sample analysis. This will be discussed in greater detail later in the module.

## Interior Clean-Up Techniques



### ◆ HEPA Vac work area from high to low

- Start with walls, tops of doors, window troughs
- HEPA Vac at least two feet beyond contained area

### ◆ Wet clean from high to low

- Change cloths and rinse water often or use disposable wipes
- Clean the floor last

### ◆ Check your work visually



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4-6

### HEPA vacuum the contained work area from high to low

- Start with the walls, tops of doors, and window troughs (high) and work your way down to the floor (low).
- Clean walls with a HEPA vacuum or by lightly wiping with a damp disposable cloth.
- Be thorough – don't rush.

### When cleaning wet, you can either mist the surface with cleaning solution or use a wet disposable cloth

- Work from high surfaces to low. If a surface is very dirty use a moist paper towel before beginning to scrub with a wet cloth. (Note: Wiping is not sufficient. You must scrub.)
- Replace cloths and change rinse water often.
- An alternative to rinsing and replacing cloths is to use disposable wipes.

### Clean the floor last

- Mist floor and clean with a wet mop using cleaning solution and the two-sided bucket.
- Clean at least two feet beyond contained area.
- Then, repeat the process using a new mop head and clean water.
- Remember, always keep one side of the bucket for cleaning solution and the other side for rinsing and wringing out the cloth or mop-head. Change the rinsing water often.

It may be necessary to repeat the HEPA Vacuum and Wet Clean. **Always** clean until you can pass a visual check.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 4 Instructor Notes**

#### **Slide 4-7: Interior Checking Your Work**

- Always conduct a visual check after your clean-up is completed. If you find any dust or debris, make another pass with the HEPA vacuum and, if necessary, wet clean again. You should continue these steps until the site passes a visual check.
- After passing a visual check you can perform clearance (dust sampling) to check your work. In some instances dust sampling may be required.
- Discuss the following instances where clearance (dust sampling) may be required or requested:
  - HUD requires clearance after certain kinds of jobs in housing receiving Federal housing assistance. Ask if the property receives Federal assistance. If so, ask if clearance is required.
  - In some states, dust wipe sampling by a certified or trained person may be required by law. Supervisors should be aware of laws regarding dust wipe sampling and renovation and remodeling work.
  - In some instances, the owner may request dust wipe samples be taken to locate lead hazards and ensure cleaning has been effective. If you follow the techniques outlined in this section, you should pass any dust wipe analysis.
- **Emphasize that clean-up should always be performed as if a dust wipe analysis were going to be conducted after clean-up.**

## Interior Checking Your Work

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### ◆ Always conduct a visual inspection after cleaning

- Look for paint chips, dust, debris, and deteriorated paint
- Focus on child access areas such as floors, window troughs, window sills
- Inspect beyond work area
- Repeat clean-up steps if necessary

### ◆ Clearance (dust sampling)

- Encouraged to check work
- Sometimes required

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## Visual inspection

- A thorough visual inspection should be the first step of checking your clean-up. Any visible paint chips, dust or debris should be collected and disposed.
- **Visual inspection will not verify that a work area has been cleaned adequately.** In many instances lead dust is not visible to the naked eye and will not be detected during a visual inspection. To ensure that a work area is properly cleaned, follow the practices outlined in this section and take a dust wipe sample for verification.

## Clearance

- Clearance (dust sampling) can be performed to check the effectiveness of the clean-up efforts.
- In some cases, dust sampling may be required as part of "clearance" (a defined process to ensure that a work area is not contaminated with lead dust after work is completed). In such cases, dust sampling must be performed by a certified or trained person. Supervisors should be aware of any State, local, or tribal laws requiring clearance following renovation and remodeling work.



### **Clearance is required in properties receiving Federal housing assistance.**

Clearance is required in many of the jobs in pre-1978 properties that receive Federal housing assistance. The clearance examination may be scheduled by the agency administering the assistance. A clearance examination is performed by a trained person independent of the crew performing the work. Ask your client or contact the agency administering the assistance in the property to find out if a clearance is required at the end of the job and to find out who will schedule the clearance exam. Remember, if the property fails clearance, the unit must be re-cleaned and another clearance examination performed. Sometimes the cost of re-cleaning and additional clearance will be the responsibility of the contractor. Cleaning well the first time will save you time and money.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 4 Instructor Notes**

#### **Slide 4-8: Exterior Clean-up Techniques**

- The main point of cleaning after an exterior job is not to let dust spread beyond the work area and to focus specifically on the areas that children could have access to such as bare soil, play areas, exterior porches and exterior window sills.
- Always inspect beyond the work area. Collect and dispose of all paint chips, dust and debris.



## Exterior Clean-Up Techniques

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- ◆ **For high-dust jobs mist area to keep dust down**
- ◆ **Visually inspect work area**
  - Look for dust, debris, and paint chips
  - Focus on child access areas such as:
    - Window sills
    - Bare soil and ground
    - Play areas

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4-8

### High-dust jobs

- After completing a high-dust job, such as power-sanding a painted surface, mist the entire work area to keep dust from spreading.

### Visual inspection

- A thorough visual inspection of the work area should be conducted after any exterior job. Any visible paint chips, wood chips or other debris from the work area should be collected and disposed with the rest of your waste.
- Focus your visual inspection on areas where children may play or be exposed to lead contaminated dust or debris. Such areas include exterior porches, outside play areas, bare soil and ground, and window sills.

### Remember

- Lead contaminated soil can poison children.
- Avoid dry raking or shoveling and spreading dust. However, raking and shoveling is appropriate if the soil is misted first.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-9: Exterior Clean-up Techniques

- Plastic protective sheeting can kill plants and other vegetation if used for an extended period of time. Therefore, on many exterior jobs landscape fabric, screen tarp, or screen mesh is used. **This material must be fine enough to catch any debris or paint chips.** Although it is recommended to be disposed of after each use, because this material can be more expensive per square foot than plastic sheeting, many contractors reuse the material.
- **In the case of reuse, the material must be cleaned thoroughly and pass a visual check before being folded and stored securely.** One method is to HEPA vacuum the material after the job is completed. Washing the fabric may also prove effective; however, waste water and debris may be produced using this method. The most effective way to clean exterior protective sheeting will be a slow HEPA vacuum followed, if necessary, by a wet clean and rinse.

# Exterior Clean-Up Techniques

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### ◆ Pick up protective sheeting

- Collect and dispose of any debris or chips on sheeting
- HEPA vacuum sheeting
- Clean sheeting to visual clearance
- Fold and store securely for reuse

### ◆ Visually inspect beyond work area

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## Protective sheeting

- Use of screen mesh, screen tarp, or landscape fabric is recommended to cover vegetation. This material should be fine enough to collect all chips and debris. Although recommended to be disposed of after use, if you intend to reuse the protective sheeting it **must** be cleaned thoroughly and pass visual clearance before being securely stored for reuse.
- If protective sheeting will be disposed at the end of the job, it should be cleaned and disposed with the rest of your waste.

## Specific exterior jobs

- If work takes place on an exterior porch or stairwell, HEPA vacuuming, wet cleaning and mopping, in addition to a thorough visual inspection, should be used to clean the work area. For such jobs the clean-up can be similar to clean-up after interior jobs. Collect and dispose of any dust or debris with the rest of your waste.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 4 Instructor Notes**

#### **Slide 4-10: Exterior Checking Your Work**

- Discuss why another visual inspection for checking your work is necessary.
- Discussion: A visual check should always occur before cleaning and focus on collecting all visible debris, large components, and paint chips. This should be followed by your cleaning activities which in the case of exterior work consists mainly of a visual check and inspection. However, after any cleanup activity another visual inspection is always necessary and should include areas not covered by the protective sheeting, areas outside the containment area, and all areas in the work area.
- Emphasize that contractors should focus on child access areas such as bare soil or ground, exterior porches, and exterior window sills.

# Exterior Checking your Work

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### ◆ Visual inspection

- Always conduct a visual inspection after any cleaning
- Focus on child access areas such as
  - Bare soil or ground
  - Window sills
  - Exterior porches
  - Play areas
- Inspect beyond work area

### ◆ Collect and dispose all paint chips, dust, debris, and deteriorated paint



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## Checking your work

- A thorough visual inspection is the main part of checking your clean-up after an exterior job. You should collect and dispose of any visible paint chips, wood chips and debris found during the visual inspection. Child access areas include porches, play areas, bare soil or ground, and window sills.
- You may notice that the processes of clean-up and checking your work are similar for exterior jobs. A visual inspection is conducted once while cleaning and **again** after completing clean-up to check your work. Both visual inspections should be thorough and focus on collecting and disposing all visible paint chips, dust and debris.



**Clearance on exterior jobs.** For exterior jobs, HUD requires only a visual assessment of the work area to pass clearance. No dust or soil testing is required.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-11: Disposal

*Have bags and tape ready for the demonstration and the hands-on activity if you choose to perform it.*

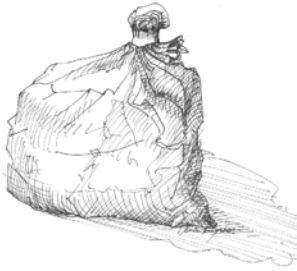
- Demonstrate “gooseneck” seal of disposal bags.
- Waste should be stored in a secure area to prevent children from getting into it and being exposed to lead dust.
- Discuss methods to handle waste water.
- Waste water produced during the job from mopping, wet cleaning or misting should not be poured down the sink, in the yard, down a storm drain or in a tub.
- Waste water should be poured down the toilet if local regulations allow for such disposal. Before disposal, waste water should be filtered.
- Always be aware of Federal, State, and local regulations regarding waste water disposal.
- All waste should be handled carefully and sealed in heavy duty plastic bags.
- Supervisors must be aware of the components of the waste produced at the job site and the proper method of disposal. Again, always be aware of Federal, State and local waste disposal regulations.

#### Optional Hands-On Activity (3 minutes)

- After demonstrating, give each participant a garbage bag and a strip of duct tape.
- Ask participants to practice making the gooseneck seal.
- Walk around and make sure that each participant is doing it properly.

## Disposal

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### ◆ What should I do with my waste?

### ◆ At the work site

- Place waste in heavy duty plastic bag
- “Gooseneck Seal” the bag with duct tape
- Carefully dispose of waste in accordance with State and Federal regulations
- Store waste in a secure area



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## At the work site

- Always collect, bag and seal your waste at the work site and in the work area. Do not carry your waste to another room or another area before bagging and sealing the waste. Store all waste in a secure container or dumpster until disposal. Limit on-site storage time. Avoid transporting waste in an open truck or personal vehicle. Some examples of waste include:
  - Protective sheeting
  - HEPA filters
  - All paint chips, dust and dirty water
  - Used cloths, wipes and mop heads
  - Any debris
  - Protective clothing, respirators, gloves
  - Architectural components

## Waste water

- Water used for clean-up should be filtered and dumped in a toilet. Never dump this water down a sink, storm drain, on the ground, or in a tub. **Always be aware of State and local regulations regarding waste water disposal.**

## Remember

- If needed, “double-bag” your waste to help prevent the waste from escaping if the bag is cut or ripped.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 4 Instructor Notes**

#### **Slide 4-12: Disposal - Local and Federal Information**

- Waste disposal is regulated under the Resource Conservation and Recovery Act (RCRA) and various associated State laws and regulations.
- Some waste generated from lead work may meet the definition of “hazardous waste” because it is toxic, corrosive, ignitable, or explosive. Therefore, it is important for contractors to segregate waste into categories that are likely to be hazardous and non-hazardous. Examples of hazardous waste may include: paint chips, vacuum debris, sludge or chemical waste from stripper and HEPA filters.
- Generators of less than 220 pounds of waste per job site per month are exempt from Federal waste disposal regulations and most State regulations.
- Many states have more stringent regulations than Federal requirements. It is, therefore, important for contractors to understand their obligations under these laws and regulations.
- You should always be aware of how much waste you are generating per job site per month.
- EPA’s website has a list of telephone numbers for State information on solid and hazardous waste disposal at <http://www.epa.gov/epaoswer/hotline/states.txt>.
- In a memorandum to RCRA Senior Policy Advisors and EPA Regions 1-10, dated July 31, 2000, EPA’s Office of Solid Waste stated that lead-based paint waste from households may be disposed of as household garbage subject to applicable State regulations. However, although EPA considers lead-based paint waste commonly generated during renovation, remodeling, and painting to be household waste, most states have not yet adopted this interpretation. Until states do adopt EPA’s interpretation, they may continue to regulate lead-based paint waste as potentially hazardous if generated in large enough quantities as indicated on the slide. (U.S. EPA “Regulatory Status of Work Generated by Contractors and Residents from Lead-based Paint Activities Conducted in Households” Memorandum from Elizabeth A. Cotsworth, Director, Office of Solid Waste, to RCRA Senior Policy Advisors and EPA Regions 1-10. July 31, 2000)



# Disposal - Local and Federal Information

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- ◆ Segregate hazardous and non-hazardous waste
- ◆ Minimize generation of hazardous waste
- ◆ Always check State regulations!

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4-12

## Waste disposal issues

- Because the U.S. EPA considers most renovation and remodeling as “routine residential maintenance” the waste generated during these activities is classified as solid, non-hazardous waste and should be taken to a licensed solid waste landfill.
- You should determine whether you generate more than 220 pounds of hazardous waste per job site per month. If you have less than 220 pounds per location per month then manage this waste as solid, non-hazardous waste. If you generate more than 220 pounds of hazardous waste you should contact your State and local regulators to find out how to dispose of this waste properly.
- Some **possible** examples of **hazardous waste** may include: paint chips; vacuum debris; sludge or chemical waste from strippers; and HEPA filters.
- Some **possible** examples of **non-hazardous waste** may include: disposable clothing; respirator filters; rugs and carpets; protective sheeting; and solid components with no peeling paint. Please list and suggest any other examples.
- All waste should be handled carefully and sealed in heavy duty heavy duty plastic bags.
- Large architectural components should be wrapped and sealed in plastic sheeting and disposed along with your waste.

## Remember

- Some states have enacted more stringent waste management and disposal regulations.
- Supervisors must be aware of State regulations concerning hazardous and solid waste management and disposal.

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-13: Exercise: Clean-Up

*For this exercise you'll need baby powder, water, and the Clean-Up Tool Kit (see Notes to Instructor).*

Prepare this exercise in advance. Things to prepare are:

- Have appropriate tools and supplies ready. Necessary tools and supplies include: buckets, mops, water, detergent, HEPA vacuum, wipes, plastic sheeting, plastic bags, tape, and other items in the **Clean-Up Tool Kit**.
- You'll need access to water.
- Sprinkle each work area with baby powder to simulate the dust.
- Refer to the **Skills Checklist** in Appendix 9 for a list of skills that participants should practice.

When conducting the exercise:

- Instruct participants to stay in their groups.
- Circulate while they work to ensure they are doing the work properly.
- Coach them as necessary to correct any incorrect behaviors (refer to the Skills Checklist in Appendix 9).
- Give them a five minute warning.
- At 15 minutes, tell them to stop.

Debrief using the next slide.

#### Option

You may also consider performing this set-up exercise later in the course as part of a larger comprehensive hands-on module as described in Lesson Plan 2 in the Notes to the Instructor at the front of this manual. The comprehensive hands-on module combines the hands-on components from Modules 2, 3, and 4.

**Note:** In some training facilities, such as hotels, you may not have access to water in the training room. In such cases, instruct participants to walk through the process – practicing the order of the steps – HEPA vac, two bucket wash, cleaning from high to low, etc. As a demonstration of how hard it is to clean up dust, consider sprinkling baby powder on a tabletop and experimenting with different methods for cleaning it up – broom and dust pan, HEPA vac, wet wipe, etc.

## **Exercise: Clean-Up**

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- ◆ **Work in small groups**
- ◆ **Choose the tools and supplies you need to clean the work area**
- ◆ **Clean your work area**
- ◆ **You have 15 minutes**

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4-13

### **Work Practices**

This exercise gives you a chance to demonstrate clean-up. The slide provides basic instruction.

- Stay in your groups of 2 or 3, in your work area
- Choose the right tools. Tools available include: buckets, mops, water, detergent, HEPA vacuum, wipes, plastic sheeting, plastic bags, tape, etc.
- Clean up that dust.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 4 Instructor Notes**

#### **Slide 4-14: How Clean is Clean?**

*Have dust wipe materials ready for this slide.*

- Ask participants if they can see any remaining baby powder. Chances are they can.

**Demonstrate how a dust wipe is done and show them the surface of the wipe. Highlight how clean the floor must be to pass this test.**

## How Clean is Clean?

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- ◆ Is your work area clean enough to pass a clearance (dust wipe) test?

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4-14

### Work Practices – A debrief

- Consider the question above. Can you see dust? Do you think if you ran a baby wipe across the floor it would come up clean?

## Lead Safety for Remodeling, Repair, and Painting

### Module 4 Instructor Notes

#### Slide 4-15: Keep in Mind

- The items listed on the slide are important for planning and managing work efficiently.
- Remember, you should either clean the work site thoroughly at the end of each day or completely seal off the area and not allow re-occupation.
- Also remember to consider clearance testing by an independent person. Even if clearance is not performed, you should always clean up as if it were.
- Note the checklist for cleaning procedures in the participant notes below the slide. **Ask participants whether they would add or change anything in the checklist.**

## Keep In Mind

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- ◆ **Schedule time to clean thoroughly at the end of each day**
- ◆ **Assign responsibilities to specific personnel**
- ◆ **Create and maintain a checklist for cleaning procedures**
- ◆ **Always maintain sufficient cleaning and disposal supplies**
- ◆ **Clearance is an option for checking your work**

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4-15

### Example check list for cleaning procedures

The list below is an example checklist for cleaning procedures. You may wish to add to or modify it to fit your needs.

- Was the work completed?
- Have all visible paint chips, dust and debris been removed and disposed?
- Was the protective sheeting folded, sealed, and disposed?
- Was the interior work area HEPA vacuumed?
- Were all surfaces wet cleaned? Was the floor cleaned last?
- Was the interior work area HEPA vacuumed again?
- Was all waste placed safely in heavy duty plastic bags?
- Were all bags properly sealed?
- Was all waste disposed in accordance with State and Federal regulations?
- Was a visual inspection completed?
- Were clearance (dust wipe) samples taken?
- Is the property owner satisfied?

Remember, even if you do not conduct clearance (dust wipe) testing at the end of a job, you will want to clean to a level that would pass clearance. This means a very thorough cleaning.





## Lead Safety for Remodeling, Repair, and Painting

### Module 5 Instructor Notes

#### Slide 5-1: Module 5 Planning the Job

- This is the module title slide.
- The purpose of this module is to help the worker and/or his supervisor ask the right questions to plan a job and to emphasize the importance of planning. The module walks through a brief, simple scenario. Then participants will fill out a planning checklist and discuss it.
- Announce the module and move quickly to the next slide.

**Overview of this module:** The table below summarizes the content and teaching methods for this module. This is for your reference. Do not cover this with the participants.

Module 5: Planning the Job		30 minutes
<ul style="list-style-type: none"><li>➤ Evaluate the Property</li><li>➤ Evaluate the Work</li><li>➤ Schedule the Work</li><li>➤ Choose the right tools and methods</li></ul>		<p><u>Key message:</u> Plan before you start the work.</p> <p><u>Notes:</u> This module is very interactive. A short scenario precedes each topic. Participants brainstorm questions before discussing the material. They also complete a planning checklist.</p> <p><u>Preparing for this module:</u> Review materials in advance so you are familiar with the scenarios and the checklist.</p>

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## Module 5

# Planning the Job

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5-1

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-2: Module 5 Overview**

- Talk briefly through the topics to be covered.

## Module 5 Overview

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- ◆ Evaluate the property
- ◆ Evaluate the job
- ◆ Schedule the work
- ◆ Choose the right tools and practices for
  - Set up
  - Work
  - Clean-up

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5-2

### Module Overview

- This module pulls all the topics previously discussed together and walks you through a job from start to finish to help you plan your job and do it right from the start.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-3: Scenario 1: A New Job**

1. Tell participants to read the scenario.
2. Then read through it with them.
3. Ask them to list the questions they have.
4. Record their questions on a flipchart.
5. Questions they should ask: How old is the house? Does it have lead-based paint?
6. Move to the next slide for further questions they should consider.

## Scenario 1: A new job

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- ◆ Your boss has just told you that you are starting a new job today.
- ◆ It's an exterior paint job.
- ◆ It's at 234 Mulberry Street.
- ◆ They're expecting you, so get over there and get started.

**Do you have any questions before you go?**

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5-3

**Scenario: A first look at the house.**

- Read the scenario.
- As a large group, consider the question posed. You have no information about the house. What kinds of questions come to mind?

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-4: 1. Evaluate the Property**

- Use this slide to wrap up the conversation from the previous slide. These are the questions that the supervisor should be asking the client and should be communicating to the worker.
- Highlight the key questions:
  - Is it a pre-1978 residence?
  - Are any additions post-1978?
  - Has any testing been done?

# 1. Evaluate the Property

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## ◆ Was the residential building constructed before 1978?

- If yes, take proper action and use lead-safe work practices.
- If no, you do not have to worry about lead dust.

## ◆ Has there been significant renovation to the home?

- Newer additions may be post-78.

## ◆ Has the paint been tested for lead?

- If yes, collect documentation of what and where.
- If no, assume lead-based paint is present.



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5-4

## Evaluating the Property

This slide highlights the questions to answer about a property before you do any work there.

- **Was the property constructed prior to 1978?** The majority of buildings constructed before 1978, especially those constructed prior to 1960, contain some lead-based paint. Unless otherwise documented, you should always assume that painted surfaces from pre-1978 houses include lead-based paint and that all dust generated from these surfaces may contain lead. Although the amount of lead-based paint found in homes varies, older dwellings typically have more lead-based paint. For pre-1950 properties, you should assume that lead-based paint is present on most painted surfaces. Some localities may have restricted lead-based paint prior to 1978.
- **Has there been significant renovation?** If all of your work will be conducted in an addition to the dwelling that was constructed after 1978 or in a home that was gutted and renovated after 1978, you do not need to utilize lead-safe work practices in the parts of the home that were built/renovated after 1978. You should ask the resident for information about significant renovations. If the resident does not know when the renovation took place, and the property was constructed prior to 1978, you should assume all painted surfaces contain lead-based paint.
- **Has the property been tested for lead?** Lead testing will tell you if there is lead in the property. If the resident has documentation that a certified inspector or risk assessor performed a lead evaluation and found that no lead-based paint is present in the work area, you do not have to utilize lead safe work practices, regardless of the age of the property. If the paint has not been tested for lead, assume that lead-based paint is present and utilize lead safe work practices.



HUD's Lead Safe Housing Rule does not provide an exemption for additions built after 1978 unless the surfaces to be disturbed are tested for lead and are found not to be painted with lead-based paint. Therefore, when working in a Federally assisted or Federally owned dwelling, workers should use lead safe work practices in all parts of the unit including additions unless testing has shown that the surfaces they will disturb are not painted with lead-based paint.



## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-5: 1. Evaluate the Property**

- Use this slide to highlight how Federal requirements may affect work practices. Remind participants of the flowchart we reviewed in Module 1. It is in Appendix 1.
- Also make clear that this information is available. If the client does not have it, it can be found through public records. When in doubt, assume lead is present.

## 1. Evaluate the Property

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### ◆ Does this property receive government assistance?

- If yes, lead safe work practices may be required. Check with the client.
- Confirm this is not an abatement project.

### ◆ Where is this property information?

- Ask the client. This information is available from tax records, disclosure forms or other documentation
- If no documentation is available, assume lead is present.



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5-5

### Evaluate the Property

In addition to the questions on the previous slide, the job supervisor should determine if there are any special requirements for the work related to Federal housing funds.

**Is the property assisted with Federal, State, local, or tribal funds?** If the property is assisted, the job may require the practices learned in this course. Talk to your client about any work requirements and confirm that this is not an abatement job that requires a certified abatement contractor. (See Appendix 1 and Appendix 3 for more information on Federal requirements.)

**Where is this property information?** The client should be able to answer all four of the questions we just discussed. If they can't, they should be able to find that information through tax records, the disclosure forms they received when purchasing the property, and other documents.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-6: A First Look at the Work**

1. Review the information in the scenario.
2. Ask participants what questions they would ask now.
3. Record their answers on the flipchart.
4. Good questions for them to ask concern:
  - The amount of scraping, sanding, etc.
  - Does the crew have appropriate tools and supplies to contain the area, work safely, and clean-up.
5. Move to the next slide to summarize the questions to ask.

## Scenario 2: A first look at the work

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### ◆ Your boss says:

- The house was built in 1939
- No testing was done
- Assume lead is present

### ◆ What questions do you have now?

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5-6

### Scenario: A first look at the job

- Now you know the age of the house. How does that affect your actions?
- As a large group, consider the questions posed.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-7: 2. Evaluate the Work**

- Use this slide to review the kinds of questions they should ask at the beginning of each job to make sure they are prepared for lead safe work practices.

## 2. Evaluate the Work

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### ◆ Will this job involve:

- Sanding, scraping, drilling?
- Demolition?
- Other activities that make dust?

### ◆ If yes, take proper precautions:

- Set-up
- Work practices
- Clean up

### ◆ Will this job create high levels of dust?



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5-7

## Evaluate the work

This slide lists the kinds of questions to consider when planning the actual work.

### Will the work involve scraping, sanding, or other activities that make dust?

- All renovation, remodeling, and painting activities that disturb painted areas, including scraping paint, removing siding, replacing windows, will create some dust. Additionally, some areas, such as window troughs and loose areas near a building's foundation, typically accumulate dust and paint chips. You must consider these factors when approaching the job and develop an appropriate plan to deal with the potential lead dust. If your work will NOT disturb ANY painted surfaces or areas where lead dust can accumulate, you do not have to use lead-safe work practices.

### What precautions are needed?

- The amount of dust created is directly related to the size of the work area, condition of the structure, and tools, materials, and dust control methods used. Previous modules presented descriptions of the necessary precautions you should take while setting up the work areas, performing renovation, remodeling, or painting activities, and cleaning up.

### If the job will disturbed paint surfaces, will it create high levels of dust that will cause you to take extra precautions?

- As highlighted in previous modules, some projects create more dust than others. Major renovation work, such as demolition, or removing old paneling, siding, windows, or wall-to-wall carpeting, can create high dust levels. Additionally, surfaces with deteriorated or chipped paint are more likely to generate high levels of dust than intact surfaces. The level of dust a job will create directly affects other parts of your job, including the materials and equipment required, precautions taken during set up, and the control methods used.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-8: 3. Scheduling the Work**

- Use this slide to discuss ways to schedule the work.
- Remind participants that residents cannot enter the work area. This may mean that residents should move out temporarily.
- Scheduling work efficiently will minimize the hassle to residents.
- Ask participants if they have ideas for how to minimize problems for residents, especially for high dust jobs.

## 3. Schedule the Work

---

### ◆ How will I schedule lead-safe work practices?

- Minimize hassle to residents
- Limit the size of the work area
- Minimize labor costs

### ◆ Take high dust jobs into account

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5-8

### Scheduling the job

This slide reviews considerations for the scheduling of work.

### How will I schedule the lead safe work practices?

- When scheduling lead safe work practices, you should keep three goals in mind:
  - Minimize the hassle to the residents
  - Limit the size of the work area
  - Minimize extra labor costs
- In many cases, it is preferable to complete lead hazard control activities before beginning other renovation, remodeling, or painting activities. This will minimize the possibility of distributing lead dust outside of the work area. This may also allow most of your work to be done using traditional methods - without the precautions necessary when working with lead-based paint - thereby simplifying the coordination of other project-related activities. It would also minimize the disruption for to the residents by reducing the areas of the house they should not enter because lead dust activities are taking place.
- For large projects, it may make more sense to conduct lead safe practices at the beginning of each phase of the project. For example, if you are renovating all of the bathrooms in a house, you may work in one bathroom at a time. In this case, it makes sense to perform lead-safe work practices at the beginning of each individual renovation activity as opposed to at the beginning of the entire job.

### Take high dust jobs into account.

- High dust jobs take more planning and may have a greater impact on your schedule. Some considerations for high dust jobs are:
  - Consider how the containment of the high dust job will affect the residents. Try to minimize the time residents are restricted. If they cannot have access to parts of their home, it may be a good idea to move them out temporarily.
  - Try to perform all high dust work at the same time.
  - If possible, set up a dust room and do all high dust work in one location.



## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-9: Planning Exercise**

Use this slide to launch the Planning Exercise.

1. Review the assumptions about the home.
2. Refer participants to the planning checklist on the next pages of their manual.
3. Instruct them to fill it out.
4. Walk around the room to confirm that participants are on-task.
5. Give a two-minute warning.
6. End the exercise after five minutes.
7. Go to the next slide to debrief.

## Planning Exercise

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◆ **Use the planning checklist**

◆ **Assume:**

- 1939 single family home
- No lead testing done
- No Federal funds
- Repainting the exterior
- Significant peeling paint

◆ **You have 5 minutes**

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5-9

### Planning Exercise

1. Use the checklist provided on the next pages on your manual when planning a job.
2. To practice, read the assumptions on the slide and fill out the checklist.
3. Note, a blank copy of this checklist is in your notebook in Appendix 2 if you ever want to make copies.
4. You have 5 minutes to fill out the checklist.

<p><b>Evaluate the Property</b></p> <p>1. Was the property constructed after 1978?</p> <p>2. If the work area is limited to an addition, was the additional constructed after 1978?</p> <ul style="list-style-type: none"> <li><i>If yes, you are not required to use lead safe work practices (unless the home receives housing assistance – see Question 4 below).</i></li> </ul> <p>3. Was testing conducted in the property?</p> <ul style="list-style-type: none"> <li><i>If yes, collect any documentation and plan your work using the information.</i></li> </ul> <p>4. Is the property receiving Federal assistance through a State, local, tribal, or Federal program?</p> <ul style="list-style-type: none"> <li><i>If yes, ask if there are any special work requirements for the job and confirm that it is not a job for a certified abatement contractor.</i></li> </ul>	<p>1. YES NO</p> <p>2. YES NO</p> <p>3. YES NO</p> <p>4. YES NO</p>
<p><b>Evaluate the Job</b></p> <p>1. Will this job involve scraping, sanding, drilling, or other activities that make lead dust?</p> <ul style="list-style-type: none"> <li><i>If yes, use the safe work practices described in this course. Use the attached list of supplies to plan your work. Plan your schedule to accommodate the necessary lead safety measures.</i></li> </ul> <p>2. Is this a high dust job?</p> <ul style="list-style-type: none"> <li><i>If yes, use additional precautions as appropriate. Use the attached list of supplies to plan your work. Plan your schedule to accommodate the necessary lead safety measures.</i></li> </ul>	<p>1. YES NO</p> <p>2. YES NO</p>

**SET UP TOOLKIT**

<b>Barriers</b>	<b>Coverings</b>	<b>Other Items</b>
Rope	Heavy plastic sheeting	Tack pad
Barrier tape (bright color preferable)	Disposable mesh (e.g., burlap, cheesecloth, landscaping mesh)	Small disposable towels or wipes
Saw horses	Staple gun	Misting bottle
Orange cones or other similar marker	Tape (duct, painters, or masking)	
Signs	Utility knife or scissors	

**SAFE WORK PRACTICE TOOLKIT**

		<b>Other equipment</b>
Wet/dry sandpaper or sanding sponge	Heavy duty plastic sheeting	HEPA Exhaust attachments for power tools (sanders, grinders, etc.)
Mist bottle or pump sprayer	Tape (duct, painters, masking)	Power washing equipment
Chemical stripper	Utility knife or scissors	Needle gun with HEPA exhaust
Heat gun	Heavy duty garbage bag	
	Vacuum with HEPA Filter	

**Personal Protective Equipment Toolkit**

Painter's hats	Gloves	Disposable hand towels (e.g., paper towels)
N-100 disposable respirators or equivalent	Pre-moistened disposable wipes	Ear protection (when using power tools)
First aid kit	Safety glasses	Disposable shoe covers
	Coveralls	

**Clean-up Toolkit**

Misting bottle	Two buckets or two-sided bucket	Mop with disposable heads
Detergent	Shovel and rake	Tape (duct)
Pump sprayer	Heavy duty garbage bags	Disposable hand towels (e.g., paper towels)
Vacuum with HEPA filter		

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-13: Planning – What Did You Learn?**

(There is no Slide 5-10, 5-11, or 5-12 because of how the software numbers them.)

1. Ask the groups what they checked off in each section and why?
2. As you talk through the answers, highlight the answers to the questions on the slide. In particular:
  - Why did they choose the tools and equipment they did? How will they use them?
  - How would their choices have changed if the job had been different, e.g., an interior job or a smaller job?

## Planning – What did you learn?

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- ◆ Does this job need special practices? Why?
- ◆ Are they required or recommended?
- ◆ What tools did you choose? Why?
- ◆ How would your list change if this were an interior job?
- ◆ What if this were a smaller job?



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5-13

As a large group, discuss the questions above.

## **Lead Safety for Remodeling, Repair, and Painting**

### **Module 5 Instructor Notes**

#### **Slide 5-14: Now You Know**

1. Use this slide to reinforce lessons learned and address any outstanding questions.
2. Highlight the resources available in the appendices.
3. Close the course on an inspirational note.



## **Now you know**

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### **How to plan for a job**

- ◆ **Evaluation the property**
- ◆ **Evaluation the work**
- ◆ **Schedule the work**
- ◆ **Choose the right tools and work practices**
  - Set up
  - Doing the work
  - Clean up

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5-14

**Now you know how to plan for a job. Go forth and do good work.**