Workers performing work that falls under the Lead-safe Renovation Regulations are required to be trained. If the workers have not received training as a Deleader-supervisor, Deleading worker, or Lead-safe Renovation (LSR) supervisor, the DLS regulations require that they receive training from the LSR supervisor assigned to the project prior to the workers engaging in the work.

To facilitate the worker training, the New England Lead Coordinating Committee (NELCC), a consortium of New England states that work to eliminate lead poisoning, and funded by EPA, developed a PowerPoint presentation that EPA Certified Renovator supervisors can use to train to their workers to meet EPA-RRP requirements. Because of the differences between the EPA and DLS regulations, DLS edited certain slides to include specific Massachusetts requirements. DLS now offers the PowerPoint slides in both English and Spanish to LSR Contractors and Supervisors to aid them in providing untrained renovation workers the required training.

Massachusetts Work Practices for Lead-safe Renovation

Renovation Worker Training Course

In Massachusetts, renovation workers are required to be trained under the Department of Labor Standards' **Deleading and Lead-safe Renovation Regulations (454 CMR 22.00)**

Adapted from the U.S. Environmental Protection Agency's training for certified renovators by the **New England Lead Coordinating Committee** (NELCC: www.nelcc.uconn.edu), within the Healthy Environments for Children Initiative, University of Connecticut, Department of Extension, in partnership with the Connecticut Department of Public Health

Who should take this course?

Take this course if you will

(1)

Work on renovation, repair, and painting jobs in homes, childcare facilities, and some schools **built before 1978**

and

(2)

Work under the direction of a

Mass Lead-safe Renovator Supervisor (LSRS)

Certified?

A Mass Lead-safe Renovator Supervisor (LSRS) is a person who has been certified in lead-safe work practices by the Massachusetts Department of Labor Standards (DLS)

Lead-safe Renovator Supervisors must take a different course than workers.

Non-certified?

This course is for **non-certified workers**

It explains the skills you need to work lead-safe (under the direction of a LSRS) **but**

It does **not** meet the training requirements to become a certified LSRS.

Why should you take this course?

- To meet the requirements of **Massachusetts DLS Lead-safe Renovation Regulations** if you work on homes, child-care facilities, and many schools built before 1978
- To learn how to protect yourself, your family, your customers, and your community from lead poisoning




Why 1978?

- Structures built before 1978 may contain **lead paint**
- If you do not handle lead paint safely

  You, the residents, their neighbors, your co-workers, and your own family can become **lead poisoned**
- This training will teach you how to work lead-safe

What's the connection between lead poisoning and renovation?

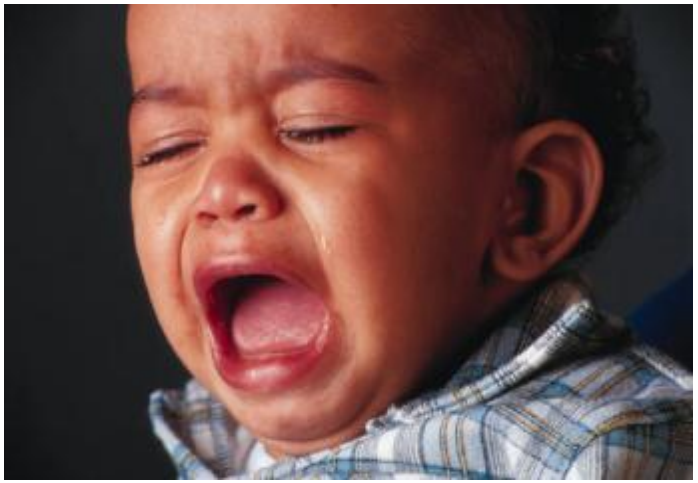
When renovation, repair, or painting jobs disturb lead paint, the paint often turns into lead dust

If people breathe or swallow lead dust, they can become lead poisoned

Lead poisoning can harm you, your family, your co-workers, the residents of the home, and their neighbors

What harm does lead poisoning do?

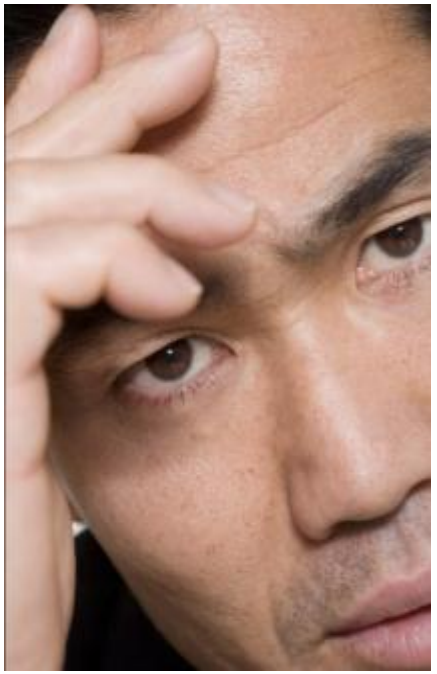
In young children



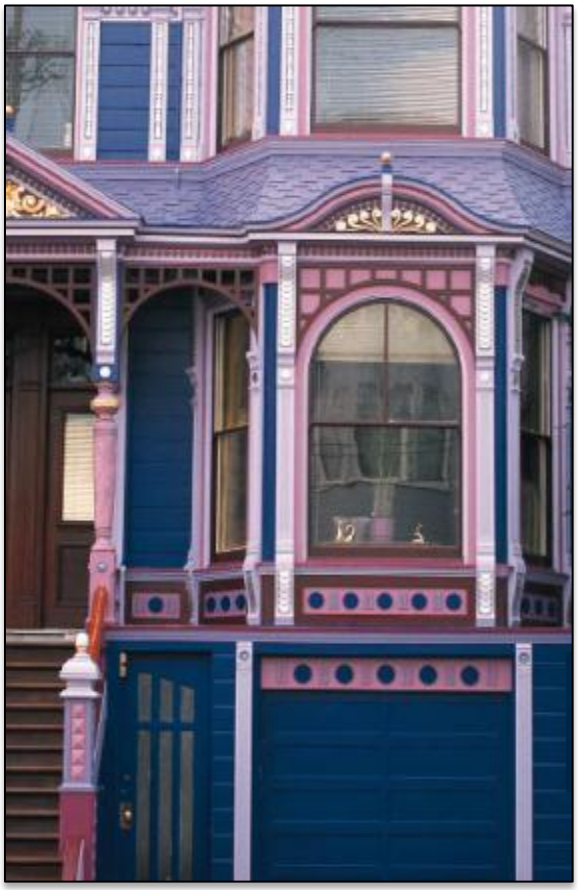
Lead can cause serious, permanent problems with learning, behavior, and health

In adults

Lead can cause serious problems with blood pressure, sexual function, digestion, and other illnesses



By the end of this training, you will know how to



Prevent the spread of dangerous lead dust during renovation, repair, and painting work by

- Setting up the job properly to keep dust and debris from spreading
- Working so that you create as little dust as possible
- Cleaning up completely

You'll work under the direction of a DLS Lead-safe Renovator Supervisor (LSRS)

Lead-safe Renovator Supervisors

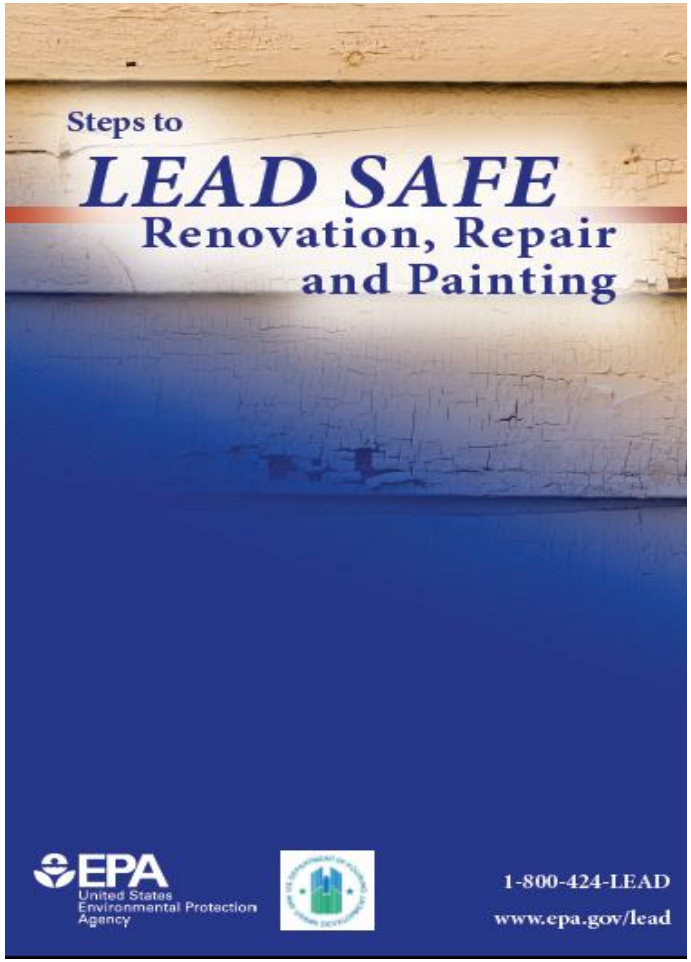
- Perform lead-safe work as described in the EPA-RRP Rule and DLS Lead-safe Renovation Regulations.
- Train all non-certified workers in lead-safe work practices.
- Direct all non-certified workers during setup and cleanup.
- Are present at the work site during work
- Maintain proof of their own certification and training records for all non-certified workers.

Your responsibilities as a non-certified worker

- Cooperate with the LSRS in working lead-safe
- Use the lead-safe work practices that you are being taught

- Ask questions if you do not understand how to work lead-safe!
  - A LSRS must be on-site while the work is being performed.
  - A LSRS must perform cleaning verification at the end of the job and maintain job records.

EPA guidebook: *Steps to Lead Safe Renovation, Repair and Painting*



www.epa.gov/lead/pubs/steps.pdf

7 steps to lead-safe work

LSRS must	LSRS or non-certified worker must
1. Determine whether job involves lead paint	
2. Be on site at all times work is occurring	2. Set up safely
	3. Protect yourself
	4. Control the spread of dust
	5. Leave the work area clean
	6. Control waste
7. Verify cleaning or document clearance testing	

Step 1

Does the job involve lead paint?

The main idea

If lead paint is present

- **You must use lead-safe work practices**

If you don't know whether lead paint is present

- You must assume that it is present, AND
- **You must use lead-safe work practices**

Why?

If you don't work lead-safe

- You, your family, or residents may become lead poisoned

Step 1

Does the job involve lead paint?

How will you know?

Only these people can determine whether lead paint is present:

- A LSRS
  (but not non-certified workers, including those who have taken this course)
- A licensed lead inspector
- A licensed lead risk assessor

A LSRS
has been trained to

- Use an EPA-approved lead test kit *or*
- Collect paint chip samples for lab analysis

Step 1

Does the job involve lead paint?

How will you know?

If testing shows that **no** lead paint is present,

workers are not required to use lead-safe work practices

Step 2

Set up safely: Contain (isolate) work area

The main idea

Keep out

- People who are not working on project
- Pets that can track lead dust throughout the home

Keep in

- Dust and debris

Why?

- To protect workers and residents
- To prevent dust from spreading to rest of house
- To make cleanup easier at end of job

Step 2

Set up safely: Contain (isolate) work area

Supplies and tools you'll need

- ❑ Signs
- ❑ Barrier tape, rope, or fencing
- ❑ Cones
- ❑ Heavy-duty plastic sheeting
- ❑ Masking, duct, or painter's tape
- ❑ Stapler
- ❑ Utility knife or scissors

Step 2

Set up safely: Keep people and pets out

How

- Put up signs, tape, cones, fencing, or other barriers
- Use signs in residents' own language
- Ask owners to keep pets away from work area

- Explain that keeping out of the work area protects everyone from lead poisoning

Note: A LSRS must be on-site even while the work area is being set up.

Step 2

Set up safely indoors: Keep dust and debris in

Protect furniture and other belongings

- Take all moveable items out of work area
- Cover items that cannot be moved with heavy plastic sheeting, and tape securely

- Cover floors with heavy plastic sheeting at least 6 feet in all directions from work that will be done

Step 2

Set up safely indoors: Keep dust and debris in

Seal off work area

Close, cover with plastic sheeting, and seal

- All windows
- All doors (except for entry to work area)
- All air vents

If necessary, create airlock to enter and leave work area

Step 2

Set up safely indoors

Put all tools and supplies on plastic sheeting before starting work

Step 2

Set up safely outdoors: General

Keep dust and debris out of home

- Cover ground and plants with heavy-duty plastic sheeting or tarps
  - Extend sheeting/covering far enough to contain any dust and debris
  - Secure sheeting to building
- Within **20 feet of work area**
  - Close and seal windows and doors
  - Move or cover play areas

- Put tools and supplies on protective sheeting before starting work

Step 2

Set up safely outdoors: Vertical containment

Why?	• To ensure that dust and debris do not contaminate nearby buildings or properties

When?	• When work affects surfaces within 10 feet of property line
	• Wherever necessary to prevent contamination of
	  • Other buildings
	  • Other areas of the property
	  • Nearby buildings or properties

How?	• Set up vertical containment or equivalent precautions

Step 2

Set up safely outdoors: Special conditions

If working on 2nd story or above	⇨	Extend sheeting farther
If building is more than 3 stories high	⇨	Use vertical shrouding on scaffolding
If working close to sidewalk, street, or property boundary	⇨	Use vertical shrouding on scaffolding

Step 2

Set up safely outdoors: Special conditions

If conditions are very windy

Avoid working in high winds if possible

If you must work, be very careful to keep dust and debris inside work area

You may need to make windscreen at edge of ground-cover plastic

Step 2

Set up safely: Very dusty jobs

Examples

Opening up wall cavities

Removing old drop ceilings

Scraping paint

Dry sanding by hand

Usually require even more careful setup. All of the previous steps **and**

- Turn off forced-air heating and air-conditioning systems
- Set up vertical containment to limit size of work area

Step 2

Set up safely: Maintain containment

Problems may occur after containment is set up *Examples*	What should you do?
Tape comes loose	
Plastic sheeting gets torn	
Paint chips fly off plastic during work	

Step 2

Set up safely: Maintain containment

Problems may occur after containment is set up ***Examples***	**What should you do?** ***Fix them!***
Tape comes loose	Put down more tape
Plastic sheeting gets torn	Repair or replace torn plastic sheeting
Paint chips fly off plastic during work	Extend plastic sheeting
	Questions? Ask the LSRS!

Step 3

Protect yourself

The main idea

Protect yourself from lead on the job	⇨	Avoid breathing and swallowing lead dust
Protect your family from lead poisoning	⇨	Avoid carrying lead dust home on your skin, hair, and work clothes

Step 3

Protect yourself: Personal Protective Equipment

Safety goggles or glasses
- to protect your eyes

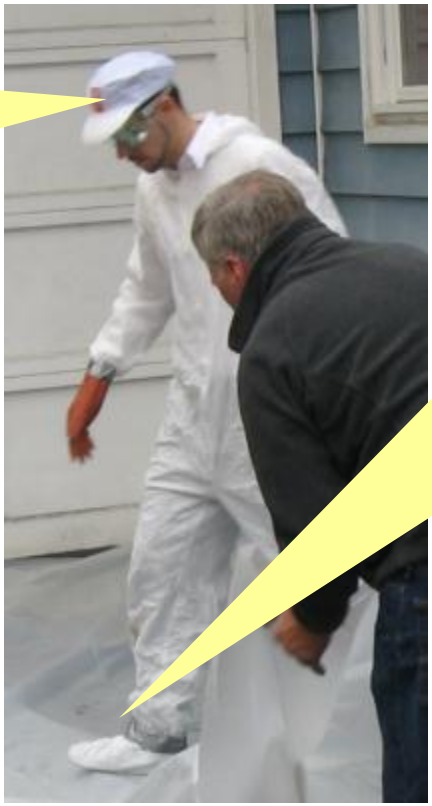
Disposable coveralls
- to keep dust off your clothes

Disposable latex or rubber gloves
- to keep your hands clean, especially when you eat

Step 3

Protect yourself: Personal Protective Equipment

Disposable painter's hat
- to keep dust out of your hair



Disposable shoe covers
- to keep dust off your shoes and keep you from tracking dust out of the work area

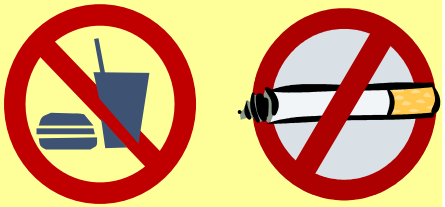
Disposable N-100 respirator
- to keep you from breathing lead dust

Step 3

Protect yourself: At work

Wear personal protective equipment

Do not eat, drink, or smoke in work area



Wash your hands and face carefully

- Each time you leave work area
- Before you eat or drink
- At end of each work day

Step 3

Protect yourself and your family: After work

Clean your clothes

- At end of work day, vacuum dust off clothes and shoes or put on clean clothes and shoes
  - Use HEPA vacuum to collect dust
  - Do not use compressed air to blow dust off clothing
- Wash work clothes separately from household laundry

No hugging until you are clean

Do not hug anyone until you have

- Changed out of your work clothes
- Washed yourself thoroughly

Step 4

Control the spread of dust

The main idea

- Create as little dust as possible
- If you do create dust, keep it from spreading

Step 4

Control the spread of dust

Supplies and tools you'll need

- ❑ Wet-dry sandpaper, sanding sponge
- ❑ Misting bottle or pump sprayer
- ❑ Heavy-duty plastic sheeting and bags
- ❑ Utility knife or scissors
- ❑ Masking, duct, or painter's tape
- ❑ HEPA vacuum cleaner
- ❑ Tack pads, paper towels, or disposable wipes

For some jobs, you'll also need

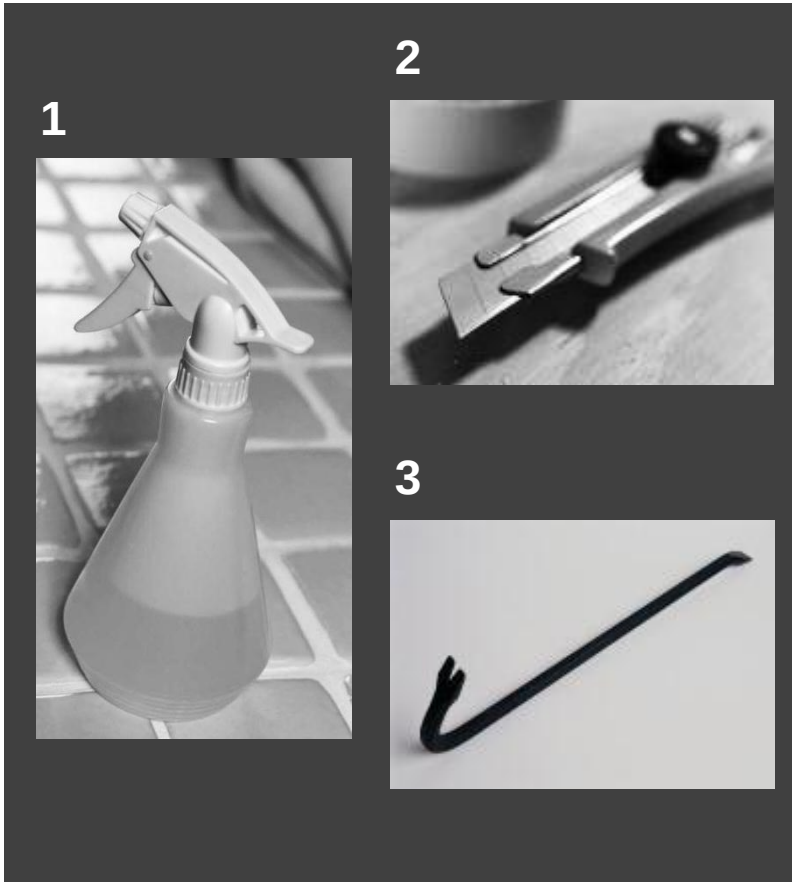
- ❑ Low-temperature heat gun
- ❑ Chemical strippers without methylene chloride
- ❑ Power tools with HEPA attachments

Step 4

Control the spread of dust

Create as little dust as possible

1. Mist areas before sanding, scraping, drilling, and cutting (except near live electrical outlets)
2. Score paint with utility knife before separating components
3. Pry and pull apart components instead of pounding and hammering



Step 4

Control the spread of dust

Keep dust within work area

- Keep work area closed off from rest of home
- Stay in contained work area and on contained paths
- Don’t track dust and debris out of work area
  - Remove disposable suit and shoe covers before you leave work area
  - Clean shoes on tack pads or use damp paper towels to wipe off shoes before you step off protective sheeting

Step 4

Control the spread of dust

To remove components from work area

- Before removing
  - Wrap securely in heavy plastic sheeting or secure in heavy-duty plastic bags
  - HEPA vacuum outside of bag
- After removing
  - Store in safe area away from residents

Step 4

Control the spread of dust: Prohibited practices

When working on lead paint

- **Do not** use open-flame burning
- **Do not** remove paint with high heat (heat guns must operate under 1,100 degrees Fahrenheit)
- **Do not** use power tools, such as sanders and grinders, unless they are shrouded and have HEPA attachments

No

Step 5

Leave work area clean

Main idea

Leave work area completely clean of dust and debris

- At end of every day
- At end of job

Note: A LSRS must be on-site while work area is being cleaned

Step 5

Leave work area completely clean of dust and debris

Supplies and tools you'll need

- Heavy-duty plastic bags
- Masking, duct, or painter's tape
- Misting bottle or pump sprayer
- Disposable wet wipes or hand towels
- HEPA vacuum with beater bar

Step 5

Leave work area completely clean of dust and debris

Supplies and tools you'll need

- Detergent or general-purpose cleaner
- Mop and disposable mop heads
- Two buckets or a two-sided bucket with wringer
- Shovel and rake
- Wet mopping system
- Swiffer®-type dry cloths

Step 5

Leave the work area clean: Every day

Throughout each day

- Clean and pick up as you work
  - Vacuum work area with HEPA vacuum cleaner often
  - Put trash in heavy-duty plastic bags
- Wash your hands and face each time you leave work area

Step 5

Leave the work area clean: Every day

At end of each day

- Clean entire work area and two feet beyond work area in all directions
- Vacuum again with HEPA vacuum cleaner
- Clean your tools
- Wash well before you go home
- Safely dispose of, or clean off, personal protective equipment

Step 5

Leave the work area clean: At end of job

- Keep sheeting that isolates work area in place until work area is completely clean
- Remove plastic sheeting carefully
  - Spray with water
  - Fold with dirty side in
  - Tape it shut
  - Dispose of properly

- Remove all dust, chips, trash, and debris, including building components, from work area
- Vacuum all surfaces, including walls, with HEPA vacuum cleaner
  - Use beater bar on carpets

Step 5

Leave the work area clean: At end of job

Damp clean

- Mist work area
- Scrub with general-purpose cleaner on wet rag or mop until all dust and debris are gone
- Change rinse water often

HEPA vacuum again

- Let surfaces dry, and vacuum again

Inspect

- Look around work area
  - Also look 2 feet beyond work area and paths where debris was carried
  - You should see no dust or debris
- Clean area again thoroughly if you see any dust or debris

Step 6

Collect and control waste

The main idea

Contain waste at all times

- On-site
- When it is being removed from the site

Step 6

Collect and control waste: What is included?

- Waste from painted surfaces
  - Dust
  - Debris
  - Paint chips
  - Architectural components
- Protective sheeting
- Dirty water
- Cleaning supplies
  - Mop heads
  - Wipes
  - HEPA filters
- Protective gear
  - Disposable clothing
  - Gloves
  - Respirators
- Any other waste

Step 6

Control waste: How to bag it

Bag and seal all waste before removing it from work area

- Put all waste in heavy plastic sheeting or bags
- Gooseneck seal bag with duct tape
  - Double bag when necessary to prevent tears
- Wrap large components in protective sheeting and seal with tape

- HEPA vacuum outside of waste bags and bundles before removing them from the work area.

Step 6

Control waste: How to store it

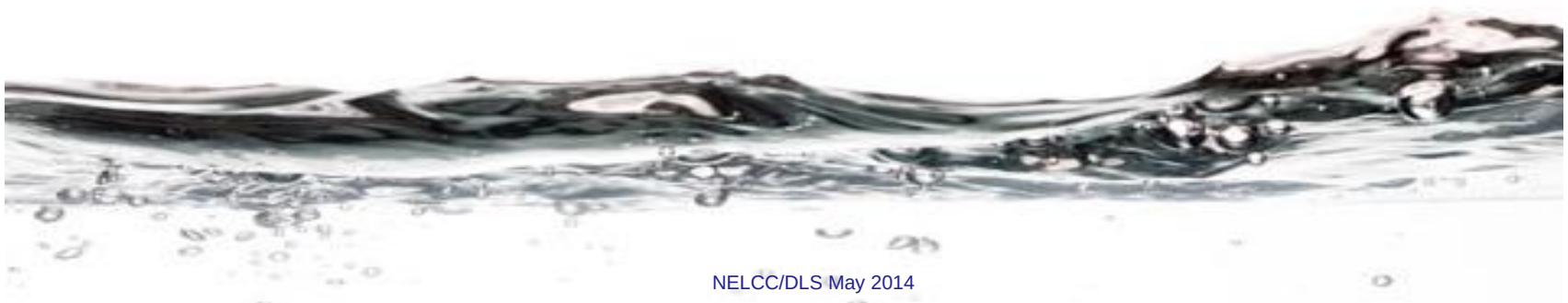
- Store all waste in secure container or dumpster until disposal
- Dispose of waste as soon as possible
- Do not carry waste in open truck or personal vehicle

Step 6

Control waste: Water

Check and follow **federal, state, and local rules** to dispose of water used to remove paint and to clean up

- **If rules allow,** filter water and dump it in a toilet
- **If rules do not allow** this method
  - Collect water in a drum and remove from work site
  - Do **not** dump water down a sink or tub, in a storm drain, or on the ground



Step 6

Control waste: Disposal rules

EPA and MassDEP consider most residential renovation, repair and painting activities “routine residential maintenance”.

Waste created by these activities

- Is considered **non-hazardous solid waste**
- Can be disposed of in an ordinary waste landfill

However, if your state or locality has stricter waste disposal requirements, you must follow the stricter rules.

Step 7

Check the work: Visual inspection

Why?	To make sure no lead dust or debris is left behind
Who?	LSRS only
How?	A. Looks carefully at entire work area B. If LSRS sees dust, paint chips, or debris, clean again C. Repeat steps A and B until the LSRS cannot see any dust, paint chips, or debris in work area

Step 7

Check the work: After passing visual inspection

For outside work

Job is complete

For all inside work

Visual inspection must be followed by **cleaning verification** or **clearance testing**

Step 7

Cleaning verification or clearance testing?

Cleaning verification

- Required for most renovations that are
  - Performed by contractor or landlord *and*
  - Not funded by federal government

Clearance testing

- Required in projects that are
  - Performed by contractor or landlord *and*
  - Funded by federal government
- May be requested by property owner instead of cleaning verification

Must be done by the LSRS, not a worker

Taking a dust wipe sample

Must be done by licensed lead inspector or risk assessor, or dust sampling technician

Now you know the 7 steps to lead-safe renovation

1. Determine whether the job involves lead paint
2. Set up safely
3. Protect yourself
4. Control the spread of dust
5. Leave the work area clean
6. Control the waste
7. Verify cleaning or document clearance testing

Questions?

For more information, contact

- Massachusetts Department of Labor Standards (DLS)
  - www.mass.gov/dols
  - 617-626-6960
- U.S. Environmental Protection Agency
  - General information (New England)
    http://www.epa.gov/region1/eco/ne_lead/index.html
  - Frequently asked questions
    http://www.epa.gov/lead/pubs/rrp-faq.pdf
  - 888-372-7341

Check your learning

	True	False
1. This course qualifies you to be a Lead-safe Renovator Supervisor.		
2. Lead paint may be found in houses built before 1978.		
3. Lead is dangerous for children but not for adults.		
4. Common renovation activities can create dangerous lead dust.		
5. Anyone can test to see whether a job involves lead paint.		
6. People who are not working on a project should be kept out of the work area.		
7. Keep windows in the work area open to provide fresh air.		
8. It's safe to drink but not to eat or smoke in the work area.		
9. Regular power sanding is the best way to remove lead paint.		
10. Use a HEPA vacuum for cleaning.		

Answer key

	True	False
1. This course qualifies you to be a Lead Safe Renovation Supervisor.		X
2. Lead paint may be found in houses built before 1978.	X	
3. Lead is dangerous for children but not for adults.		X
4. Common renovation activities can create dangerous lead dust.	X	
5. Anyone can test to see whether a job involves lead paint.		X
6. People who are not working on a project should be kept out of the work area.	X	
7. Keep windows in the work area open to provide fresh air.		X
8. It's safe to drink but not to eat or smoke in the work area.		X
9. Regular power sanding is the best way to remove lead paint.		X
10. Use a HEPA vacuum for cleaning.	X	

Evaluation of this training

- Was the information clear?
- Do you still have questions about how to work lead-safe?

Training record sheet

Non-certified worker's name: **Date:**	**Check below if worker viewed slides on the topic**	**Check below if worker completed hands-on activity**
1. Determining whether job involves lead paint		Task must be done by certified LSRS
2. Setting up safely		
• Setting up barriers, signs, and flapped door entries		
• Covering or removing furniture		
• Controlling the spread of lead dust		
• Establishing containment indoors		
• Establishing containment outdoors		
3. Using personal protective equipment		
4. Cleaning up at the end of a job		
• Indoors		
• Outdoors		
6. Bagging waste		
7. Other: explain		
7. Checking the work		Task must be done by certified LSRS
• Inspecting visually		
• Cleaning verification		
Signature of LSRS who conducted the training:		