



UNIVERSITY OF
NORTHERN COLORADO

Environmental Health and Safety



Certification Number: NAT-117534-2

**Lead
Renovation, Repair and Painting Program**

August 2024



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Lead Renovation, Repair and Painting Program

I. Purpose

The purpose of this document is to establish the correct procedures, responsibilities, and requirements for Lead Renovation, Repair and Painting (RRP) throughout campus. It is the responsibility of each department to ensure that all their affected employees are properly trained and have received a copy of these procedures.

II. Risk Identification

Leaded dust generated by renovation work can cause lead poisoning. This is especially dangerous to children, but can also adversely affect yourself, other workers, your family and even pets. Changes in work practices and cleanup, that minimize and contain dust, help reduce the risk of lead dust exposure. Some of the health effects of lead in adults include: high blood pressure, fertility problems, digestive issues, nerve disorders, memory or concentration problems and muscle or joint pain.

III. Responsibilities

In order for these guidelines to be effective, all University employees and students must clearly understand and take an active role in meeting these responsibilities and guidelines. Due to the potential hazards associated with Lead RRP work activities, the specific responsibilities outlined below shall be followed.

Managers and Supervisors

As a supervisor of employees performing Lead RRP work, the supervisor shall:

- Identify job requirements and duties that fall under the Lead RRP regulations.
- Identify job requirements and duties that are exempt under the lead RRP regulations but fall under safe worker regulations.
- Ensure that employees adhere to all responsibilities identified for employees when performing Lead operations.
- Ensure employees inspect, wear and maintain all required Personal Protective Equipment (PPE) and Lead work equipment as outlined in this program.
- Provide all required PPE for Lead work activities.

Campus Department

Any campus departments that have job requirements and duties that may require Lead operations shall:

- Provide annual blood testing for all personnel that works in Lead operations.
- Provide respiratory function testing and respirator fit testing for all employees that work with lead (refer to Respiratory Protection Program).
- Provide all needed Lead operation supplies and PPE.

Employees/Certified Lead RRP personnel

As a Lead RRP Certified operator, an employee shall:

- Assist Supervisors in identifying work activities that may fall under the Lead RRP regulations.
- Use all PPE and Lead operation procedures and supplies as trained.
- Report any malfunction of supplies or PPE to the supervisor for replacement or repair of the equipment.
- Ensure that the facility occupants have received Lead RRP operations notification.

Students/Facility Occupants

Occupants of a facility that may contain lead shall:

- Receive “The Lead-Safe Certified Guide to Renovate Right” Booklet that will be provided by the University prior to renovation work.
- Sign and return the acknowledgment of receipt paperwork within two (2) weeks of receipt to Housing and Residential Education.

Housing and Residential Education

The Housing and Residential Education Department shall:

- Provide facility occupants with “The Lead-Safe Certified Guide to Renovate Right” pamphlet and collect the receipt acknowledgment forms.
- Ensure that occupants receive the appropriate notifications seven days before any renovation work begins.
- Completed acknowledgment forms shall be attached to the Lead RRP Pre-Operations Checklist Form (see Appendix D).
- Give appropriate forms and attachments to the Lead RRP Certified Operator prior to the applicable renovation operation.

Environmental Health and Safety

The Environmental Health and Safety Department (EHS) shall:

- Provide assistance in identifying activities that fall under the Lead RRP and safe worker regulations.
- Provide assistance to departments that perform Lead operations
- Assist in scheduling Lead RRP certified training for personnel.
- Assist in set up and scheduling of lead and zinc blood testing for personnel that may be involved in lead operations.
- Schedule and perform respirator fit testing.
- Maintain Certified Firm allocation for the University.
- Receive and maintain completed documentation after each renovation project.

IV. Lead Testing and Surveillance

As part of the Lead RRP regulations, University owned property that falls under the regulation have been surveyed for the presence of lead. The surveyed information is available at Facilities Management and Housing and Residential Education. Before beginning renovations, certified operators may need to acquire additional or more detailed lead location information from the lead survey booklets.

University owned property that is exempt under the Lead RRP regulation that was built before 1978 will need to be tested prior to beginning any renovation work. If, for any reason, a facility is suspected of containing lead-based paint, a lead check test should be conducted prior to beginning work that may generate dust. Each lead check test should be logged and recorded using the Lead Check Test Record Form (See Appendix A).

When conducting a Lead Check Test the following guidelines shall be followed:

1. Wear appropriate PPE which can include but is not limited to:
 - a. Disposable gloves
 - b. Safety glasses
 - c. Respirator use is not required when performing Lead Check Tests
2. Select location for test (choose an area that is directly connected to the area to be worked on)
3. Using an appropriate cutting instrument, cut into the surface of the area, ensuring that you make the cut deep enough to penetrate all layers of paint.
4. Perform the Lead Check Test in accordance with the instructions
5. Record test location and results on Lead Check Test Record Form (see Appendix A)

V. Lead RRP Operations Notification

In target housing identified by the Lead RRP regulations, interior operations that are more than six (6) sq. feet and exterior operations that are more than 20 sq feet require that proper notifications must be given to facility occupants prior to the commencement of work. To ensure proper notification is being carried out, Housing and Residential Education shall adhere to one of the appropriate notification procedures listed below.

It is the Lead RRP Certified operator and/or Supervisor's responsibility to ensure that the occupants of a facility have received the proper notifications. The certified operator and/or Supervisor should work with Housing and Residential Education to verify receipt and documentation.

Residence Halls-Individual Units

If Lead RRP operations affect an individual unit in a Residence Hall, each occupant of the unit must be given a copy of the "The Lead-Safe Certified Guide to Renovate Right" Booklet at least seven (7) days prior to the commencement of work. Each occupant shall sign the acknowledgment of receipt form (see Appendix B) and return it to Housing and Residential Education at least two (2) days prior to the commencement of work. Each occupant of the entire facility shall receive an electronic notification of where and when Lead RRP operations will be performed with a link to view or download "The Lead-Safe Certified Guide to Renovate Right" Booklet seven (7) days prior to the commencement of work.

Residence Halls-Common Areas

If Lead RRP operations affect a common area in a Residence Hall, each occupant of any affected unit must be given a hardcopy of the "The Lead-Safe Certified Guide to Renovate Right" Booklet at least seven (7) days prior to the commencement of work. Each occupant shall sign the acknowledgment of receipt form (see Appendix C) and return it to Housing and Residential Education at least two (2) days prior to the commencement of work. Each occupant of the entire facility shall receive an electronic notification of where and when Lead RRP operations will be performed with a link to view or download "The Lead-Safe Certified Guide to Renovate Right" Booklet seven (7) days prior to the commencement of work.

Houses

When Lead RRP operations must be conducted in a house, each occupant must be given a hardcopy of the "The Lead-Safe Certified Guide to Renovate Right" Booklet at least seven (7) days prior to the commencement of work. Each occupant shall sign the acknowledgment of receipt form (see Appendices B or C) and return it to Housing and Residential Education at least two (2) days prior to the commencement of work.

Emergency Renovations

Emergency renovations and repairs are defined as activities that were not planned and if not immediately attended to present a safety hazard or threaten equipment and/or property with significant damage. Emergency work can begin immediately. As soon as possible Housing and Residential Education shall send an electronic notification to each occupant of the affected facility informing them of the work and providing a link to view or download the “The Lead-Safe Certified Guide to Renovate Right” Booklet

VI. Safety Guidelines for Lead RRP Regulated Renovations

To ensure that lead dust is safely contained within the work area, these guidelines shall be followed when performing Lead RRP operations:

A. All Renovations

1. Renovations must be performed by certified firms using certified renovators
2. Signs must be posted defining the work area and restricting unauthorized access.
3. Occupants must be notified seven days prior to the commencement of work being performed. Coordinate with Housing and Residential Education to ensure “The Lead-Safe Certified Guide to Renovate Right” Booklet has been issued to the occupants of the affected facility and a receipt or acknowledgment of the booklet has been received.
4. Prior to renovation, the work area must be contained to prevent dust and debris from escaping the area while renovation work is being conducted.

B. Interior Renovations

1. Interior renovations or repairs that exceed six (6) square feet of painted surfaces must comply with all Lead RRP regulations.
2. Remove all objects in work area or cover with protective sheeting ensuring all seams and edges are properly sealed.
3. Post warning signs at each entry to a work area.
4. Close and cover all duct openings in work area.
5. Close windows and non-entry doors in work area and cover with plastic sheeting.
6. Cover doors used to enter the work area with plastic sheeting in a manner that allows workers to pass through, but contains dust and debris.
7. Cover floor surface with taped down plastic sheeting in work area with a minimum of six (6) feet beyond the perimeter of surfaces undergoing renovation, or sufficient distance to contain any dust, whichever is greater.
8. Utilize a HEPA vacuum to help contain dust while performing the renovation as well as for clean-up.
9. No power tools that could create an excess amount of dust can be used during renovation without a dust shroud attachment to prevent the release of lead dust.

10. After the work has been completed, the RRP certified personnel must clean the work area of all dust, debris, and residue
 - Collect all paint chips and debris and seal in a heavy duty bag
 - Clean all surfaces and objects in the work area and within two (2) feet of the work area
 - Clean walls starting at the ceiling and working down to the floor. A HEPA vacuum or a damp wiping cloth should be utilized.
 - Thoroughly vacuum all remaining surfaces and objects in the work area, including furniture and fixtures with a HEPA vacuum.
 - Wipe all remaining surfaces and objects in the work area, except for carpeted or upholstered surfaces with a damp wiping cloth. Mop uncarpeted floors using a wet mopping system.
11. Remove and dispose of protective sheeting
12. A visual work area inspection must be performed using the approved cleaning verification card prior to re-occupation.

C. Exterior Renovations

1. Exterior renovations that exceed 20 square feet of a painted surface must comply with all Lead RRP regulations.
2. Post warning signs where they will be easily readable 20 feet from the edge of the worksite.
3. Close all doors and windows within 20 feet of the renovation
4. Ensure that doors within the work area and that will be used while the job is being performed are covered with plastic sheeting in an appropriate manner to allow workers to pass through while confining dust and debris.
5. Cover the ground with plastic sheeting extending a minimum of 10 feet beyond the perimeter or a sufficient distance to collect falling paint debris, whichever is greater. In situations where the work area is in close proximity to outside barriers, such as a fence, another building etc. Additional precautions should be taken to contain the work area. These precautions could include a vertical barrier or "lidded" containment.
6. To ensure that dust and debris do not contaminate or migrate to adjacent areas, additional containment precautions may need to be taken during inclement weather such as high winds or over spray conditions before any lead RRP work can commence.
7. Once the renovation work has been completed the certified renovator must:
 - Collect all visible paint chips and renovation debris from the work area and surrounding perimeter.
 - Remove and dispose of protective sheeting as lead waste
 - Seal all lead waste into heavy duty bags and dispose of properly (see Section VIII).
 - Remove respirators last and clean exterior of any possible lead dust.
 - Wipe or wash hands and face to ensure no residual lead dust remains.

VII. Safety Guidelines for Lead RRP Exempt Renovations

Lead RRP exempt renovations include but are not limited to:

- Minor repairs and maintenance that disturbs less than six (6) square feet of interior painted surfaces per room or less than 20 square feet of exterior painted surfaces.
- Renovations and repairs that occur in buildings that were built after 1978.
- Renovation and repairs that occur in buildings that were built before 1978 that are zero-bedroom dwellings or where children under the age of six (6) do not reside or are not expected to reside.

To ensure that employees remain safe while performing Lead operations, these guidelines shall be followed:

1. Follow good work practices when working in areas where you may be exposed to lead.
2. Prior to beginning renovation work, designate a dirty area and a clean area in the workspace and restrict access to authorized personnel only.
3. Place signage in front of every entrance to the work area that states:

DANGER
LEAD MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

4. Put on appropriate PPE in the clean area.
5. During renovations, plastic sheeting or drop clothes should be utilized to contain all fallen renovation debris. Additional precautions may need to be taken during inclement weather, such as high winds or over spray conditions, before any lead work can commence.
6. Upon completion of lead operations renovators shall:
 - HEPA vacuum heavily contaminated protective clothing while it is still being worn.
 - Collect all visible paint chips and renovation debris from the work area.
 - Remove suits and shoe covers in the designated dirty area of the workspace before stepping into the clean area
 - Leave used disposable PPE in the dirty area for disposal with waste.
 - Vacuum clean drop clothes or dispose of plastic sheeting as lead waste.
 - Seal all lead waste into heavy duty bags and dispose of properly (see Section VIII).
 - Remove respirators last and clean exterior of any possible lead dust
 - Wipe or wash hands and face to ensure no residual lead dust remains.

VIII. Personal Protective Equipment

All personnel who will be performing lead operations are required to wear the following PPE:

- Approved respirator
- Tyvek suit with boots and hood
- Gloves
- Safety glasses or goggles

Additional PPE may be necessary depending on the job scope and additional hazards that may be present in the work area.

IX. Waste Disposal

All Lead renovation waste and renovation equipment shall be properly decontaminated or disposed of upon completion of the job. Lead renovation waste should be placed into an appropriate heavy-duty trash bag, and tightly sealed to prevent the release of any lead dust. The bag should then be disposed of in a designated lead waste dumpster. Lead renovation waste includes but is not limited to:

- Plastic sheeting
- Disposable Tyvek suits and gloves
- Disposable cleaning wipes
- All lead based paint contaminated building materials removed during work

A designated six-yard dumpster will be available to place the Lead renovation waste and EHS will manage the dumpster pick up. The dumpster shall remain locked at all times, and under no circumstances should regular trash be mixed with lead waste. If the dumpster is full notify EHS and place excess lead waste in the designated area in the Hazardous Waste Storage Area (East storage building).

Lead renovation equipment that can be cleaned and reused should be decontaminated using a HEPA vacuum and cleaning wipes to remove Lead dust from the exterior of the equipment. Reusable lead renovation equipment includes but is not limited to:

- HEPA vacuum
- Swiffer sweeper
- Any tools used during the work
- Respirators

X. Medical Monitoring

All personnel who will be conducting ANY lead work must have a baseline lead and zinc blood test conducted prior to working on lead renovations and then on an annual basis thereafter. If an employee's blood test results are over the critical level of 40ug or if they exhibit signs of lead poisoning, the employee shall be notified and visit the campus workers compensation physician for further evaluation. As required by the Respiratory Protection Program, all employees will also have an initial and annual pulmonary function test and respirator fit test.

XI. Contractors

Unless a contractor hired by UNC has its own approved Lead RRP program that equals or exceeds UNC's program, all contractors will ensure that their employees are certified and aware of this program. In all cases, the more restrictive code or standard shall apply. UNC departments hiring outside contractors should ensure that contractors are made aware of the contents and requirements of this document.

XII. Training and Recordkeeping

All Lead RRP operators will be trained and certified in the proper Lead RRP guidelines and techniques as outlined by the EPA. All training certifications, operation notification receipts, testing and surveillance information and Lead RRP compliance records will be documented and shall be maintained by Environmental Health and Safety for a minimum of three years. All Medical records and exposure monitoring records shall be maintained for a minimum of 30 years.



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**“The Lead-Safe Certified Guide to Renovate Right” Booklet
Acknowledgement of Receipt Form (single unit)**

Pamphlet Receipt

I have received a copy of the lead hazard information pamphlet informing me of the potential risk of the lead hazard exposure from renovation activity to be performed in my dwelling unit.

House or Facility Name

Room # (if applicable)

Printed Name of Occupant

Signature of Occupant

Date

Lead RRP Pre-Operations Checklist

Project #/Work Order # _____ Today's Date _____

Type of Property: Residence Hall House Other _____

Name of Facility: _____

Address of Facility (if applicable): _____

Renovation location and work description: _____

Confirmed Lead: Lead survey Lead Check Test

Is this an Emergency? Yes No

If yes, describe the emergency: _____

Start Date of Project: _____ Projected End Date of Project: _____

Residents Notified: Booklet Electronically (emergency operations do not require booklet notification prior to the commencement of work)

Date Notification Given/Sent to Occupants: _____

All Acknowledgement of Receipt Forms Received: Yes Number Received: _____
(attach forms to this document)

Lead RRP Certified Operator Use Only

Operator Name(s): _____

Actual Start Date: _____ Actual Finish Date: _____

Occupant Notified and all applicable forms received and attached to this document: Confirmed

Certified Operator's Signature: _____

Send completed forms to Environmental Health and Safety