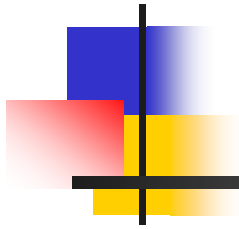


# Lead: Renovation, Repair and Painting Final Rule



National Lead Laboratory  
Accreditation Program and the  
Laboratory Quality System  
Requirements



# Rule Summary:

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- EPA has issued a final rule under the authority of § 402(c)(3) of the Toxic Substances Control Act (TSCA) to address lead-based paint hazards created by renovation, repair, and painting activities that disturb lead-based paint in “target housing” and “child-occupied facilities.”
  - For more information:  
<http://www.epa.gov/lead/pubs/renovation.htm>



# Why is Lead a Hazard for Children?

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- Neurocognitive decrements are associated in young children with blood lead concentrations in the range of 5-10 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ), and possibly somewhat lower.
- A decline of 6.2 points in full scale IQ for an increase in concurrent blood lead levels from 1 to 10  $\mu\text{g}/\text{dL}$  has been estimated.
- Paint that contains lead can pose a health threat through various routes of exposure. House dust is the most common exposure pathway through which children are exposed to lead-based paint hazards.



# Why is Lead a Hazard for Children?

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## **Affected Population:**

- According to the Centers for Disease Control and Prevention (CDC), in 2002 there were 310,000 children in the United States with elevated blood lead levels (i.e.,  $10\mu\text{g}/\text{dl}$ )
  - in 1978 there were 13.5 million



# Statutory Authority for EPA to Regulate Lead

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- **TSCA § 402(a)** directs EPA to promulgate regulations covering lead-based paint activities (inspections, risk assessments, and abatements) to ensure that:
  - Persons performing these activities are properly trained,
  - Training programs are accredited, and
  - Contractors performing these activities are certified.
- These regulations must contain standards for performing lead-based paint activities, taking into account reliability, effectiveness, and safety.
  - In 1996, EPA issued final regulations governing lead-based paint activities in target housing and child-occupied facilities. [40 CFR part 745, subpart L]



# Statutory Authority for EPA to Regulate Lead

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- **TSCA § 402(c)(3)** directs EPA to revise the regulations promulgated under TSCA § 402(a) [the Lead-based Paint Activities Regulations] to apply to renovation or remodeling activities that create lead-based paint hazards.



# Statutory Authority for EPA to Regulate Lead

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## **EPA's TSCA § 402(c)(3) Lead-Hazard Finding:**

- In the final rule, EPA determines that renovation, repair, and painting activities that disturb lead-based paint in target housing and child-occupied facilities create lead-based paint hazards.
  - Because the evidence shows that *all* such activities in the presence of lead-based paint create dust-lead hazards (*i.e.*, surface dust that contains a mass-per-area concentration of lead equal to or exceeding 40  $\mu\text{g}/\text{ft}^2$  on floors or 250  $\mu\text{g}/\text{ft}^2$  on interior window sills based on wipe samples).



# Supporting Studies

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**TSCA § 402(c)(2)** directs EPA to study the extent to which persons engaged in various types of renovation and remodeling activities are exposed to lead during such activities or create a lead-based paint hazard regularly or occasionally.





# Supporting Studies

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- TSCA § 402(c)(2) study:
  - Phase I, the Environmental Field Sampling Study, determined that dust-lead hazards were created by the following activities:
    - Paint removal by abrasive sanding.
    - Window replacement.
    - HVAC duct work.
    - Demolition of interior plaster walls.
    - Drilling into wood or plaster.
    - Sawing into wood or plaster.



# Supporting Studies

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- Phase II, the Worker Characterization and Blood Lead Study:
  - statistically significant association between increased blood lead levels and the number of days spent performing general renovation activities in pre-1950 buildings in the past month.
- Phase III, the Wisconsin Childhood Blood Lead Study:
  - children who live in homes where renovation was performed within the past year were 30% more likely to have a blood lead-level that equals or exceeds 10  $\mu\text{g}/\text{dL}$  than children living in homes where no such activity has taken place recently.
- Phase IV, the Worker Characterization and Blood-Lead Study of R&R Workers Who Specialize in Renovations of Old or Historic Homes:
  - persons performing renovations in old or historic buildings are more likely to have elevated blood-lead levels than persons in the general population of renovation workers.



# Supporting Studies

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## The Dust Study

- EPA also conducted a field study, *Characterization of Dust Lead Levels after Renovation, Repair, and Painting Activities*, aka “the Dust Study” to characterize dust lead levels resulting from various renovation, repair, and painting activities.
  - Completed in January 2007



# Supporting Studies

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## **The Dust Study Overview:**

- 12 different interior and 12 different exterior renovation activities were performed at 7 vacant target housing units in Columbus, Ohio, and 8 vacant target housing units (including four apartments) in Pittsburgh, Pennsylvania.
- Three different interior and three different exterior renovation activities were conducted at a building representing a child-occupied facility, a vacant school in Columbus.
- The Dust Study provided confirmation that the control methods in the final rule are effective in reducing lead hazard.



# Abatements vs. Renovations

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- **Abatements** are generally performed in three circumstances:
  - A child with an elevated blood lead level
  - In housing receiving HUD financial assistance
  - State and local laws and regulations may require abatements in certain situations associated with rental housing.
- Abatements are not covered by this rule.



# Abatements vs. Renovations

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- Renovations are performed for many reasons, most having nothing to do with lead-based paint.
- Renovations involve activities designed to update, maintain, or modify all or part of a building.
- Renovations are covered by this rule.



# Rule Scope

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- Covers renovation, repair and painting activities that disturb lead-based paint in:
  - Target housing, which is housing constructed before 1978 except:
    - housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing); or
    - any 0-bedroom dwelling.
  - Child-occupied facilities
    - Includes kindergartens and child care centers



# Rule Scope

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- Under this rule, a child-occupied facility is a building, or a portion of a building:
  - Constructed prior to 1978 and
  - Visited regularly by the same child, under 6 years of age on at least two different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours.
  - Child-occupied facilities may be located in public or commercial buildings or in target housing.





# Rule Scope

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## **Excludes:**

- Renovations that affect only components that have been determined to be free of lead-based paint.
- Minor repair and maintenance:
  - Six square feet or less interior, 20' exterior.
  - No prohibited practices, window replacement or demolition of painted surfaces.

## **Opt-out provision:**

- Homeowners may choose to opt out of the rule's requirements if they occupy the housing to be renovated, the housing is not a child-occupied facility, and no child under age 6 or pregnant woman resides there.



# Pre-Renovation Education

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- Final RRP rule modifies the Pre-renovation Education Rule:
  - For renovations in common areas, renovation firms have the option of posting informational signs while the renovation is ongoing. The signs must:
    - Be posted where they are likely to be seen by all of the tenants of the affected units
    - Contain a description of the general nature and locations of the renovation and the anticipated completion date.
    - Be accompanied by a posted copy of the new renovation-specific pamphlet (Renovate Right) or information on how interested tenants can review or obtain a copy of the pamphlet at no cost to the tenants.



# Pre-Renovation Education

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- Final RRP rule adds Pre-renovation Education requirements for child-occupied facilities.
- When renovating a child-occupied facility, renovation firms must:
  - Provide a copy of the Renovate Right pamphlet to the building owner and an adult representative of the child-occupied facility, if different.
  - Deliver general information about the renovation to parents and guardians of children under age 6 using the facility by mail, hand-delivery or by posting informational signs while the renovation is ongoing.
    - Sign requirements similar to those for common area renovations.



# Training and Certification Requirements

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- Renovations must be performed by certified renovation firms using certified renovators and other workers that have received on-the-job training from certified renovators.
- To become certified, renovation firms must submit an application to EPA and pay a fee (to be determined).
- Firm re-certification is required every 5 years.



# Training and Certification Requirements

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- To become certified, the following persons must take an 8-hour accredited training course:
  - “renovators”—individuals who perform and direct renovation activities, and
  - “dust sampling technicians”—individuals who perform dust sampling *not* in connection with an abatement.
- The course completion certificate serves as certification for these individuals.
- Refresher training is required every 5 years.



# Work Practice Requirements

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- **Work practice** requirements that must be followed for every covered renovation in target housing and child-occupied facilities.
  - warning signs and work area containment
  - the restriction or prohibition of certain practices (e.g., high heat gun, torch, power sanding, power planing)
  - waste handling
  - cleaning
  - post-renovation cleaning verification.



# Work Practice Requirements

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- The certified renovator must direct the posting of signs outside the work area to warn occupants and others not involved in the renovation to remain clear of the area.
- In addition, the certified renovator must also direct the containment of the work area so that dust or debris does not leave the area while the work is being performed.
- Objects left in the work area, HVAC ducts, and floors must be covered with taped-down plastic, or other impermeable sheeting.



# Work Practice Requirements

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- Specific cleaning steps (which must be directed by a certified renovator):
  - All paint chips and debris must be picked up.
  - Protective sheeting must be misted, folded dirty-side inward, and disposed of as waste.
  - Walls in the work area must be vacuumed with a HEPA vacuum or wiped with a damp cloth.
  - All other surfaces in the work area must be vacuumed with a HEPA vacuum and wiped with a damp cloth or wet-mopped. Floors must be wet mopped, using the 2-bucket method or a wet mopping system.





# Work Practice Requirements

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- A certified renovator must use wet disposable white cleaning cloths to wipe the windowsills, countertops, and uncarpeted floors in the work area.
- These cloths must then be compared to a cleaning verification card.
- If the cloth matches or is lighter than the cleaning verification card, that surface has passed the cleaning verification.
- Surfaces that do not pass the first attempt must be re-cleaned.
- Surfaces that do not pass on the second attempt must be allowed to dry and wiped with a white electrostatic cleaning cloth.



# Work Practice Requirements

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- The rule does not allow dust clearance sampling in lieu of post-renovation cleaning verification.
- Exception: cases where the contract between the renovation firm and the property owner or another Federal, State, Territorial, Tribal, or local regulation requires dust clearance sampling by a certified sampling professional and requires the renovation firm to clean the work area until it passes clearance.



# Recordkeeping Requirements

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- Recordkeeping: All documents must be retained for 3 years following the completion of a renovation.
- Enforcement:
  - Lead-based paint is assumed to be present at renovations covered by this rule.
  - EPA may conduct inspections and issue subpoenas pursuant to the provisions of TSCA § 11 (15 U.S.C. 2610)



# State and Tribal Programs

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- States, Territories, and Tribes may apply for and receive authorization to administer their own renovation, repair and painting programs in lieu of the Federal regulation.



# Outreach to Non-regulated Parties

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- EPA intends to conduct an outreach and education campaign designed to encourage homeowners and other building owners to follow lead-safe work practices while performing renovations or hire a certified renovation firm to do so.



# Effective Dates of Rule

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- 60 Days after publication:
  - Effective date of rule
  - States and tribes can begin applying for authorization.
- 12 Months after publication:
  - Providers of renovator and/or dust sampling technician training may apply for accreditation.
- 18 Months after publication:
  - Renovation firms may begin applying for certification.
- 24 Months after publication:
  - Rule fully implemented. Training providers must be accredited, renovation firms/renovators/dust sampling technicians must be certified, and work practices must be followed.



# National Lead Laboratory Accreditation Program (NLLAP)

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- Background
  - TSCA § 405(b) directs EPA to establish a program to certify laboratories as qualified to test substances for lead content.
  - EPA established the NLLAP in 1994, and expanded it in 1996 to include requirements for mobile laboratories.
  - NLLAP establishes protocols, criteria, and minimum performance standards for laboratory analysis of lead in paint films, soil and dust.
  - A January 23, 2008 Federal Register notice announced the availability of the NLLAP document entitled "Laboratory Quality System Requirements (LQSR) Revision 3.0."



# Reason for NLLAP Changes

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- The current revisions to NLLAP are to specifically incorporate requirements for portable or field measuring devices.
- By expanding NLLAP, EPA is removing any barriers to, and encourages users of portable devices for clearance testing to become accredited under NLLAP.





# Significant Changes

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- The LQSR revisions expand NLLAP to include:
  - A lead laboratory analysis program for organizations that use portable or field devices, such as XRFs, and
  - Revised training requirements for laboratory personnel,
  - Additional guidance on quality control requirements, and
  - Requirements for one person laboratories.
- The LQSR revisions reflect the recent updates that were made to ISO 17025, the world-recognized standards for determining competency of the laboratories.
- The LQSR revisions were based on stakeholder comments, including those made during stakeholder meetings.
- A response to stakeholder comments is available in the NLLAP docket (#EPA-HQ-OPPT-2005-0044).



# Implementation and Next Steps

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- Effective date:
  - LQSR 3 will be phased in over the next 18 months.
  - During this time, the laboratory accrediting organizations will be incorporating the requirements of LQSR 3.0 into the accreditation process.
- Next steps:
  - Eventually, EPA would like to bring all lead testing activities under the NLLAP umbrella to ensure a consistently high level of precision and accuracy.
  - This may include revisions to the Lead-based Paint Activities Regulations (40 CFR part 745, subpart L).
- Questions:
  - Jackie Mosby at 202-566-2228, or [mosby.jackie@epa.gov](mailto:mosby.jackie@epa.gov)



# Thank You for Your Time!

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