

Practical Methods for Conducting Lead-Safe Remodeling, Repair and Painting Activities

Lake States Environmental, Ltd.

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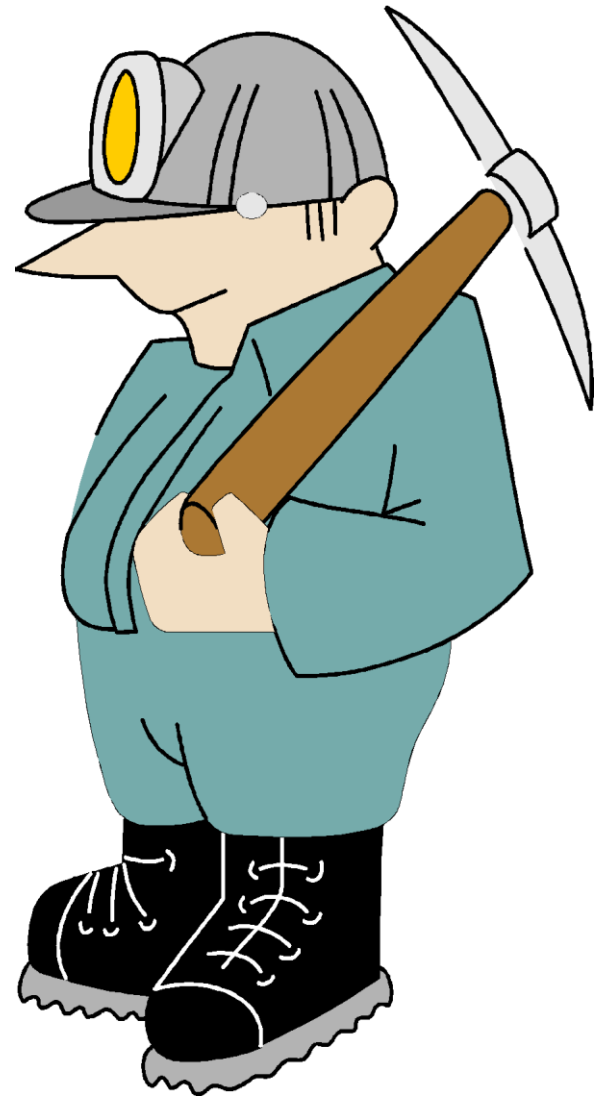
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What is Lead?
Where is it Found?

History of Lead

- What is lead?
- Why was lead used?
- Lead is dangerous.
- Lead causes health problems.
- Where is lead found?
 - House paint
 - Industrial use paint

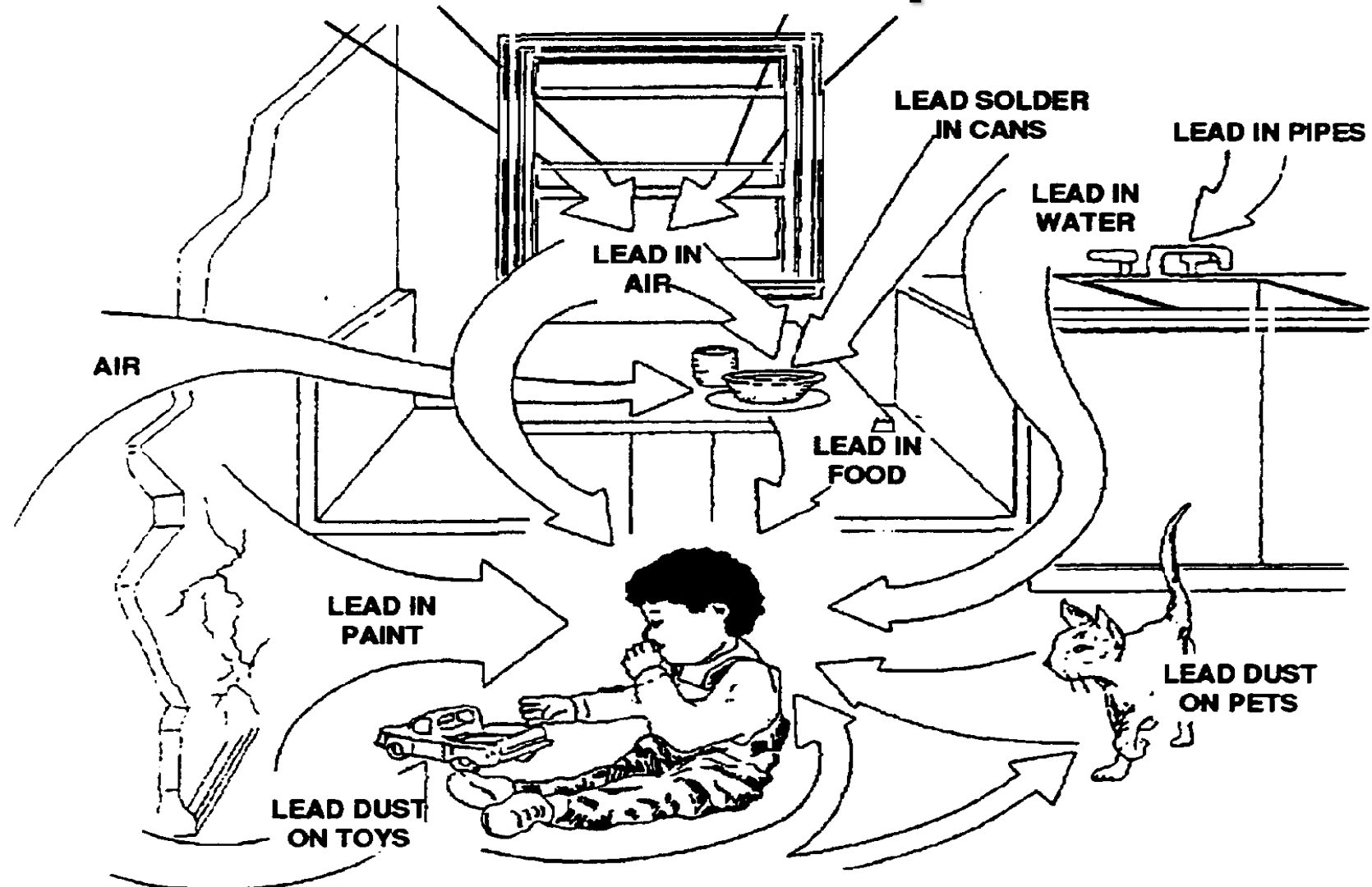


Sources of Lead Exposure

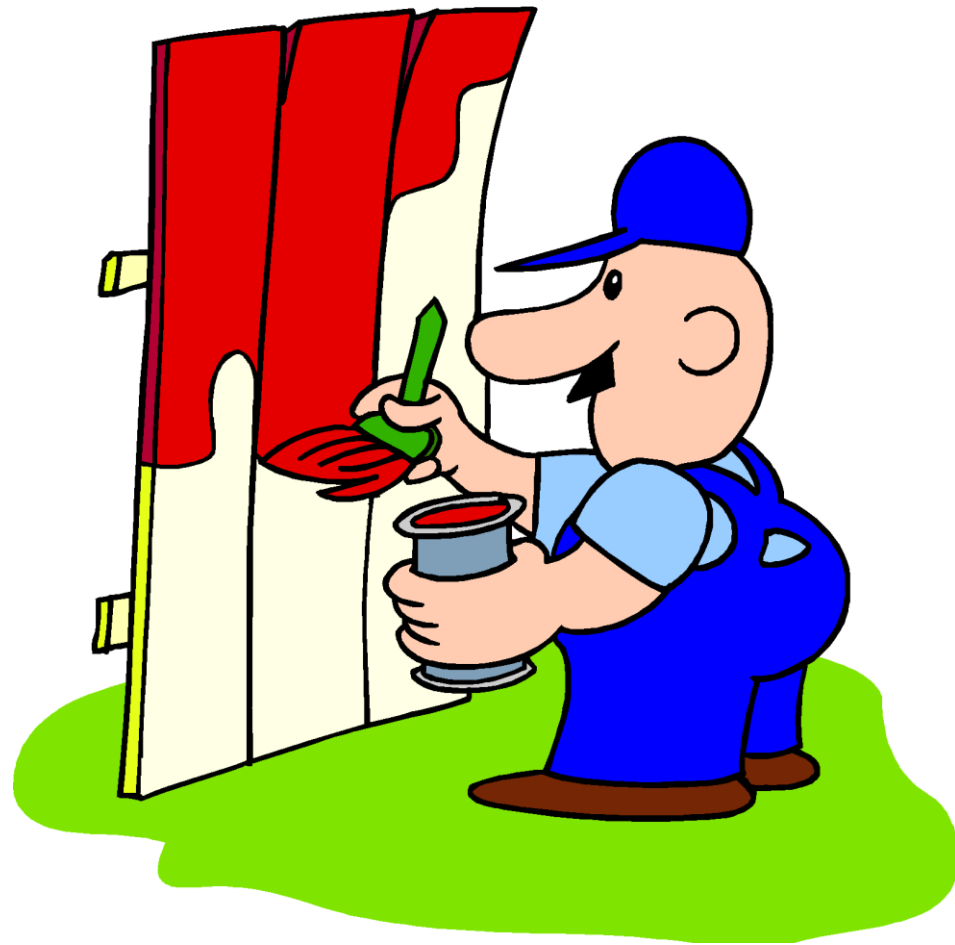
Leaded Gasoline
Industrial Releases
Soil
Food
Hobbies
**Occupational
Exposure**



Sources of lead Exposure



Lead Paint Problem in U.S.



87% of homes built before 1940 have lead-based paint

69% of homes built from 1940 to 1959 have lead paint

24% of homes built from 1960 to 1978 have lead paint

Measuring Lead in Paint

- Mass loading
 - ✓ 1 mg/cm²
- Mass Concentration
 - ✓ .5%

When is Lead a Hazard?

- ✓ Dust-lead hazard
- ✓ Soil-lead hazard
- ✓ Paint-lead hazard

What is a Lead-Based Paint hazard

- 1 Lead dust from damaged LBP
- 2 Lead dust from LBP on friction surface.
- 3 Lead dust from LBP on impact surface(s).
- 4 Lead painted surface a child can chew on.
- 5 Lead contaminated dust
- 6 Lead contaminated soil



Tasks producing high levels of lead

Class 1 Tasks

Your employer must assume your lead exposure is **above the PEL.**

- Manual demolition of structures
 - Manual scraping or sanding
 - Using heat gun
 - Power tool cleaning with dust collection systems
 - Spray painting with lead paint
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Class 2 Tasks

Your employer must assume your lead exposure is **10 times the PEL.**

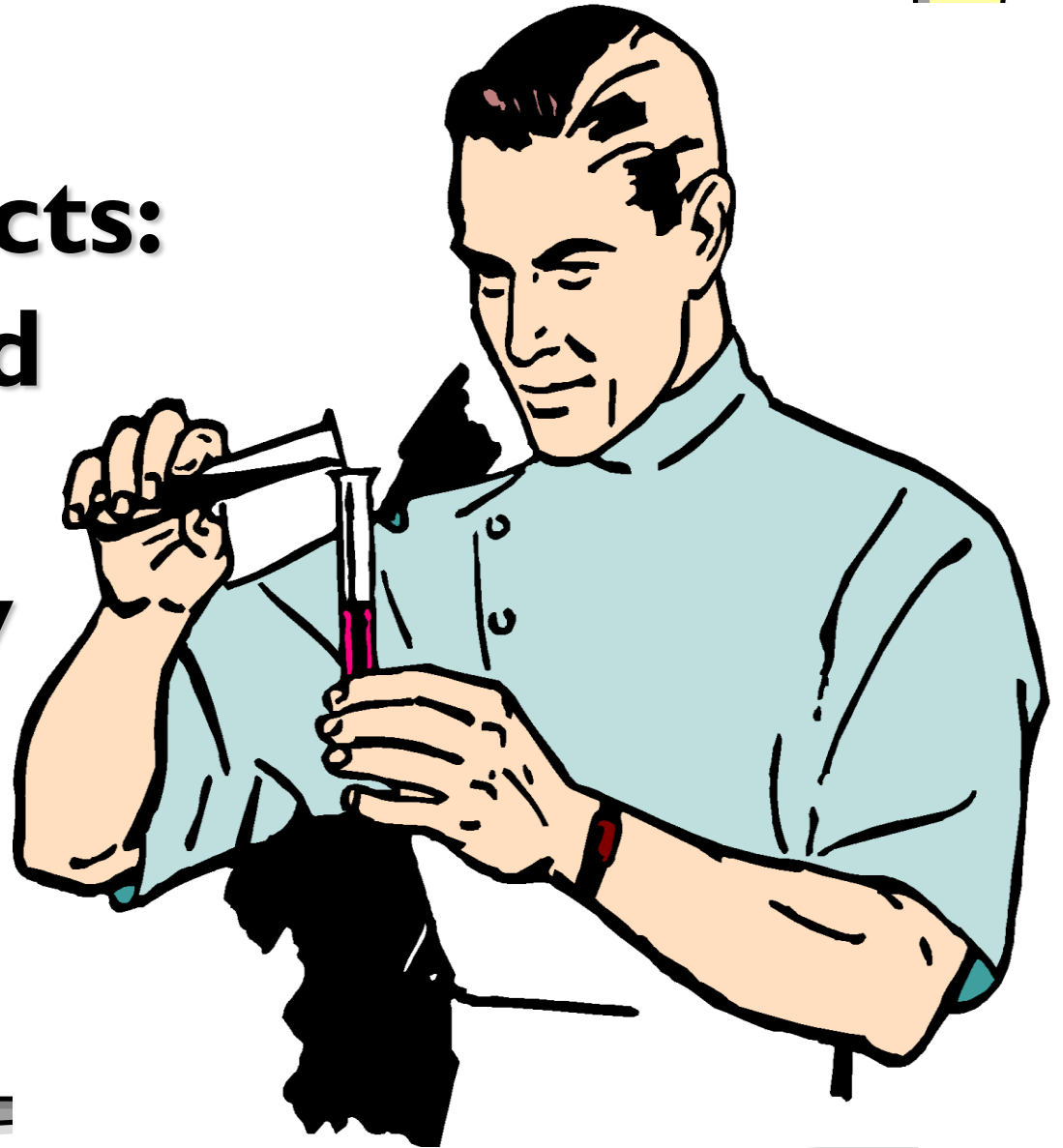
- Using lead containing mortar
 - Burning lead
 - Rivet busting lead-paint surfaces
 - Power tool cleaning without dust collection systems
 - Cleaning up with dry abrasives
 - Moving and removing an enclosure used for abrasive blasting
-

Class 3 Tasks

Your employer must assume your lead exposure is **50 times the PEL.**

- Abrasive blasting
- Welding
- Cutting
- Torch burning

Health Effects: How Lead Affects the Body



How Lead Affects the Body

Lead Poisoning affects you.
How much lead is dangerous?
How does lead get into your
body?
Breathing lead
Swallowing lead

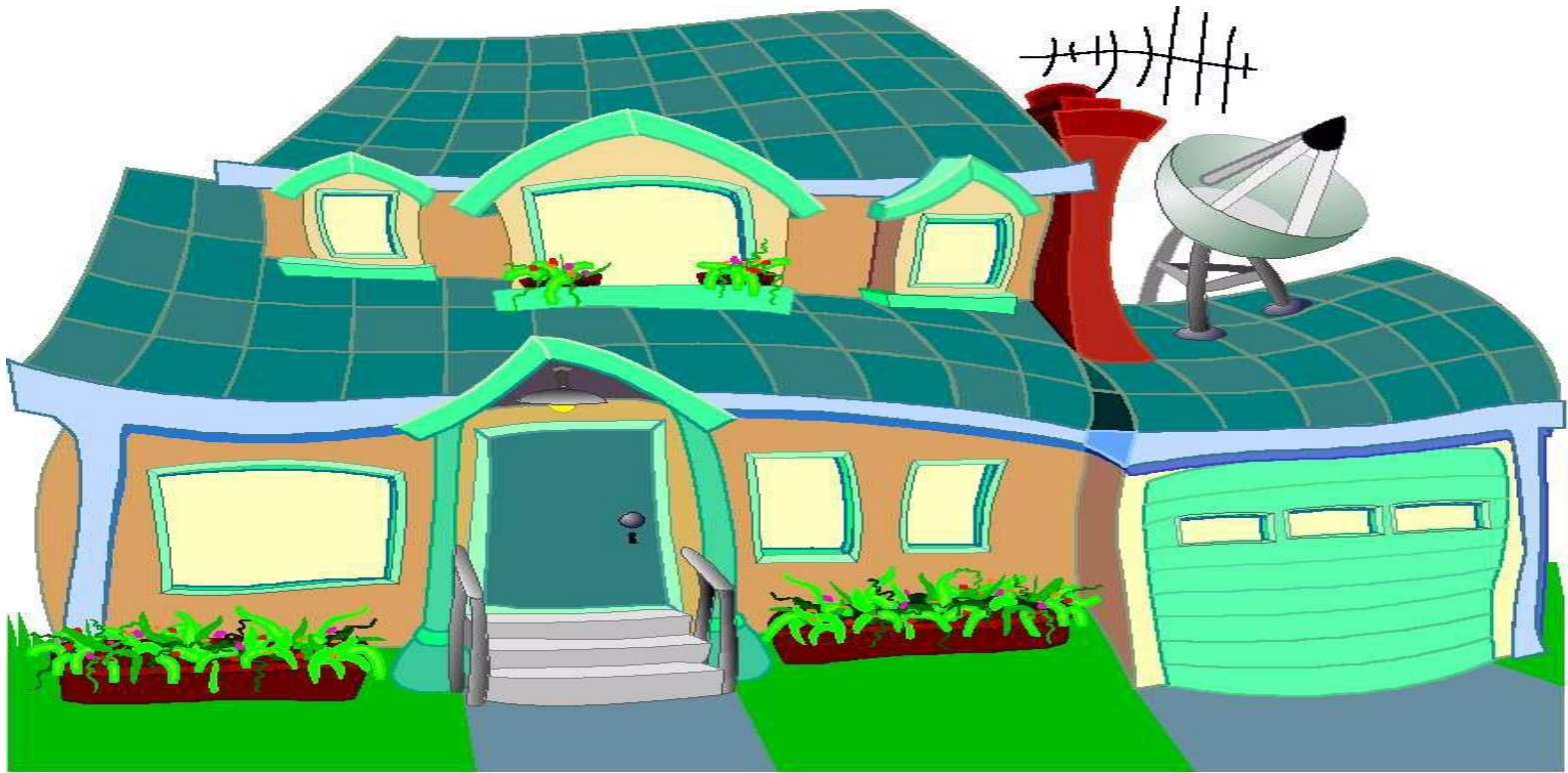


How Can Lead Harm Your Body

- ✓ *Heart and blood system*
- ✓ *Kidneys*
- ✓ *Nervous system*
- ✓ *Bone tissue*
- ✓ *Female reproductive health*
- ✓ *Male reproductive system*



Controlling Lead-Based Paint Hazards



Reducing Lead-Based Paint Problems

Residential Lead Based Paint Hazard Reduction Act of 1992 - Title X

- ★ Environmental Protection Agency (EPA)
- ★ Department of Housing and Urban Development (HUD)
- ★ Occupational Safety and Health Administration (OSHA)
- ★ MN Department of Health & WI Dept. of Health Services



Environmental Protection Agency (EPA)



- Section 1018 The HUD/EPA Disclosure Rule
- Section 406b, Notice Prior to Renovation
- Sections 402/404, EPA Training and Certification Rule
- Section 403, Lead Hazard Standard
- 40 CFR Part 745, Subpart Q

Occupational Safety and Health Administration (OSHA)



- 29 CFR 1926.62, Lead
Construction Industry Standard
- 29 CFR 1926.62, Appendices A, B, C
- OSHA 29 CFR 1910.1200, Haz Com Program
 - Safety Data Sheets (SDS)
 - Written compliance program
 - Training in hazardous materials

Prohibited Work Practices

The following are never allowed:

- Torch or flame burning
- Open abrasive blasting
- Uncontained water blasting
- Machine sanding w/out HEPA
- On-site use methylene chloride
- Dry scraping
- Wall papering or repainting as an abatement method



Restricted Work Practices

Use of these Work Practices would normally result in a higher risk of exposure to lead by either workers or other building occupants.

Restricted Work Practices are allowed *if* accepted Engineering and Work Practices Controls are used in conjunction with the work practice to control the release of and exposure to lead hazards during *and* after the activity.

Cleaning Methods



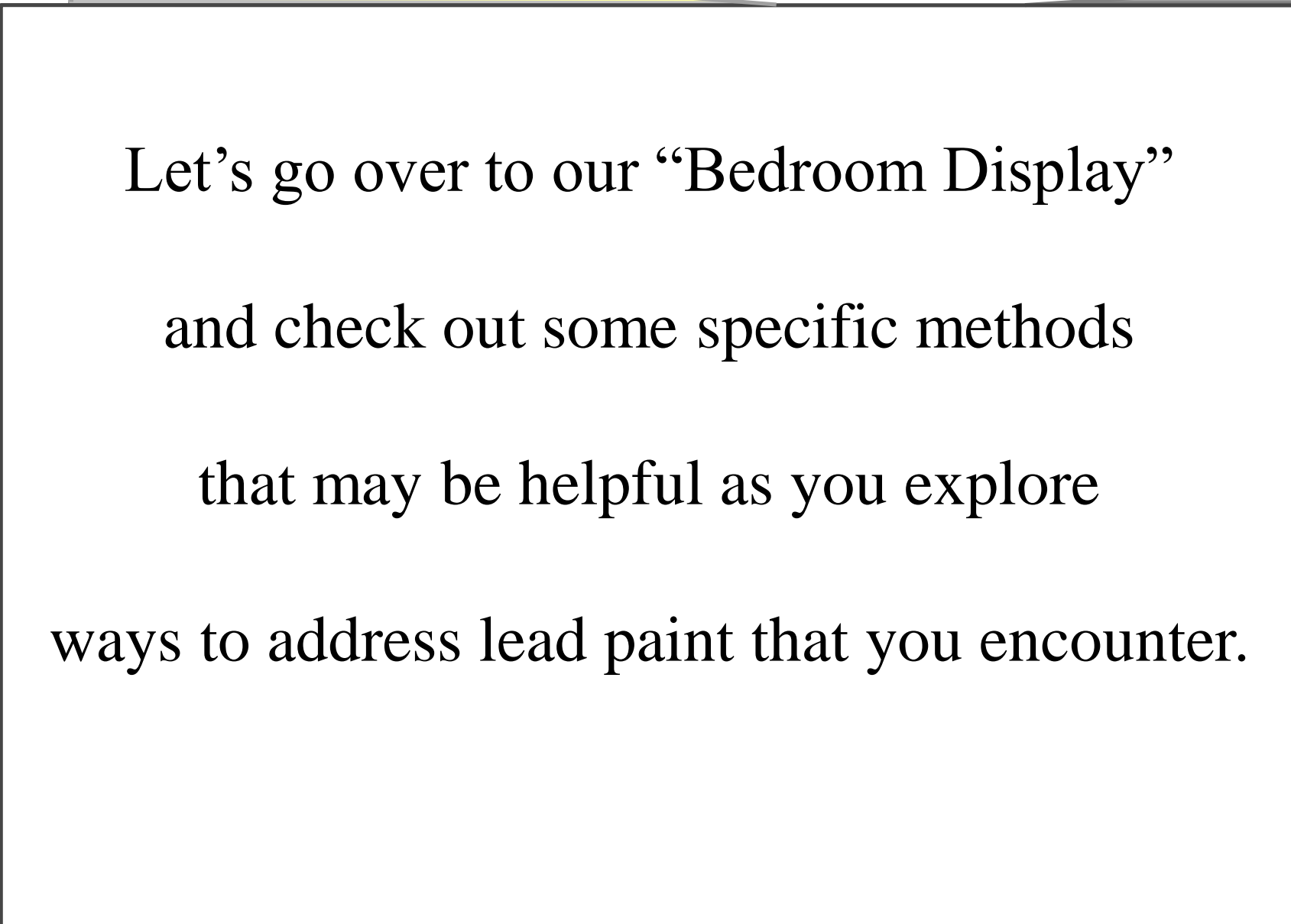
Special Cleaning Methods

Wet Methods must always be used unless using a vacuum with HEPA filtration.

No Dry Sweeping or other Dry Cleaning technique can be used.

Special Cleaning Methods Final Cleaning

- 1 HEPA vacuum all surfaces
- 2 Wash all surfaces with lead cleaner
- 3 HEPA vac all surfaces again



Let's go over to our "Bedroom Display"
and check out some specific methods
that may be helpful as you explore
ways to address lead paint that you encounter.

Lead Paint Resources for Lead-Safe Renovation, Repair and Painting Rule Compliance

Minnesota Lead-Based Paint Statutes, Rules, Forms and Other Information

Minnesota Statutes 144.9501-144.9512: <https://www.revisor.mn.gov/statutes/?id=144&view=chapter> (also known as The Minnesota Lead Poisoning Prevention Act) were enacted to prevent and reduce lead exposure to children, up to the age of 72 months, and pregnant women from the adverse health effects caused by elevated blood lead levels.

Minnesota Administrative Rules 4761.2000 – 4761.2700: The Lead Poisoning Prevention Act authorizes the adoption of lead rules to — <https://www.revisor.mn.gov/rules/?id=4761&view=chapter>

- set standards for the lead content of paint, dust, drinking water and bare soil and establish methods for sampling and analyzing these components;
- establish methods for lead hazard reduction;
- establish licensing of persons who perform regulated lead work; and
- establish permit requirements for training courses.

Minnesota forms

- Individual Lead License Application: <http://www.health.state.mn.us/divs/eh/lead/prof/forms/indapp.pdf>
- Lead Firm Certification Application: <http://www.health.state.mn.us/divs/eh/lead/prof/forms/firmapp.pdf>

Minnesota Department of Health – Lead Information: <http://www.health.state.mn.us/topics/lead/index.html>

Wisconsin Lead-Based Paint Statutes, Rules, Forms and Other information

Wisconsin Statute Chapter 254: <http://docs.legis.wi.gov/statutes/254.pdf> Environmental Health - Describes public health and other responsibilities for detection, treatment and response to lead hazard exposure. This is the *law* that the state legislature passed that enabled/required the Department of Health Services to develop and enforce *rules (below)* that provide detailed requirements that are required to be followed to satisfy the purpose and intent of the law. Both the statute and the rule must be followed to be legal. Any and all *rules* must be consistent with the *law* that enables that rule.

Wisconsin Statute Chapter 704: <http://docs.legis.wi.gov/statutes/statutes/704.pdf> . Landlord & Tenant - Describes the conditions under which a tenant may move without incurring liability due to untenability, including conditions that are hazardous to health (704.07(4)).

Wisconsin Statute Chapter 709: <http://docs.legis.wi.gov/statutes/709.pdf> Disclosures by Owners of Residential Real Estate.

Administrative Rule DHS 163: http://docs.legis.wisconsin.gov/code/admin_code/dhs/110/163.pdf Certification for the Identification, Removal, and Reduction of Lead-Based Paint (PDF, 374 KB). Amended in 2009 to regulate renovation, repair and painting activities that may disturb lead-based paint.

The Wisconsin Lead-Safe Renovation Rule is a subpart of the above DHS 163 rule. It affects contractors and child-occupied facilities regarding renovation activity in dwellings built before 1978. This rule applies to any remodeling, renovation or painting activities that disturb more than 6 sq.ft. on the interior or 20 sq.ft. on the

exterior of a dwelling or child-occupied facility. Demolition and window replacement are always included regardless of affected quantities. One person on each crew on a covered project needs to be a Certified Lead-Safe Renovator, and that person is responsible to see that the rest of the crew is properly trained. The Certified Lead-Safe Renovator needs to be onsite when signs are posted, during set up of the work area, during clean-up, and conduct the cleaning verification at the end of the work activity. All project records must be kept for at least 3 years.

Wisconsin Forms

Wisconsin requires certification for lead professionals who conduct lead hazard reduction or lead investigations. This link describes the types of certification that are available.

- Certification Application – Individual: <http://www.dhs.wisconsin.gov/forms/F4/F44033.pdf>
- Certification Application – Company: <http://www.dhs.wisconsin.gov/forms/F0/F00171.pdf>
- Lead Hazard Reduction and Investigation Certification Table: <https://www.dhs.wisconsin.gov/publications/p0/p00848.pdf>
- Occupant Protection Plan: <https://www.dhs.wisconsin.gov/library/F-00201.htm>

EPA Lead-Based Paint Rules and Resources

National Lead Information Center (NLIC) : <https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center> The National Lead Information Center (NLIC) provides the general public and professionals with information about lead hazards and their prevention. NLIC operates under a contract with the U.S. Environmental Protection Agency (EPA), with funding from EPA, the Centers for Disease Control and Prevention, and the Department of Housing and Urban Development.

Renovate Right: Important Lead Hazard Information for Families, Child Care Providers, and Schools: <http://www2.epa.gov/sites/production/files/documents/renovaterightbrochure.pdf> General information about legal requirements for safe lead practices for homeowners, tenants, child care providers and parents during renovation activities. Also available in Spanish. <http://www2.epa.gov/sites/production/files/documents/renovaterightbrochure-esp.pdf>

HUD Technical Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing: http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/lbp/hudguidelines These guidelines provide detailed and technical information on how to identify and control lead-based paint hazards.

Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation: A step-by-step manual that illustrates the safety precautions to take when painting, doing maintenance or renovating in homes built before 1978. English: www.hud.gov/offices/lead/training/LBPguide.pdf and Spanish: www.hud.gov/offices/lead/training/LBPguide-esp.pdf

Protect Your Family From Lead in Your Home: http://www2.epa.gov/sites/production/files/2013-09/documents/lead_in_your_home_brochure_book_b_w_508.pdf Owners of pre-1978 housing are required to give this to tenants when entering into or renewing a rental agreement or before more than 2 square feet of lead-based paint is disturbed.

Outreach Campaigns and Materials: <https://www.epa.gov/lead> - Outreach campaigns and educational materials to help parents, home owners, and lead professionals learn what they can do to protect their families, and themselves, from the dangers of lead.

Thank You for joining us!

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