



Sampling for Lead Dust in Housing

Housing built before 1978 may contain lead paint. Most children who suffer lead poisoning in Maine are exposed to lead dust that is created in their homes when lead paint is disturbed by renovation, when it deteriorates or is rubbed off by opening and closing windows and doors, or through normal wear and tear on painted floors and stairs. Lead dust can be invisible. Lead dust sampling can show if there is lead dust in a home environment which appears to be clean¹.

There are three purposes for performing lead dust sampling, each with distinct circumstances and some with regulatory requirements. Lead dust sampling by certified Lead Inspectors, Lead Risk Assessors, and Lead Dust Sampling Technicians must be conducted in accordance with the requirements of the Department of Environmental Protection's Chapter 424 *Lead Management Regulations*.

1. Dust sampling as part of a Lead Inspection

Lead inspections are conducted to identify all lead hazards in a residence, and involve testing painted surfaces for lead with an X-ray Fluorescence (XRF) analyzer. To determine if lead paint in "fair" condition is a lead hazard, lead dust sampling on adjacent horizontal surfaces may be conducted by a certified Lead Inspector or Risk Assessor, or by a certified Lead Dust Sampling Technician under the direct supervision of a Lead Inspector or Risk Assessor.

2. Clearance sampling

- a. **Clearance following abatement.** Clearance sampling for lead dust is required following abatement of lead hazards. This sampling must be performed by a certified Lead Inspector or Risk Assessor. Abatement is done according to regulatory standards with the intent of permanently eliminating identified lead hazards. It is most often performed when the Maine Department of Health and Human Services orders abatement after it conducts an environmental investigation and finds lead hazards in the home of a child who has an elevated blood lead level. This sampling verifies that the licensed Lead Abatement Contractor has appropriately conducted the abatement and cleaned the abatement work areas of all lead dust hazards. Sample locations are determined by the Lead Inspector or Risk Assessor in accordance with the requirements of DEP's Chapter 424.
- b. **Clearance following renovation, repair and painting.** Since 1998, U.S. Housing and Urban Development (HUD) regulations have required clearance testing after renovation, repair and painting in housing receiving federal assistance. This testing may be done by a certified Lead Dust Sampling Technician, a Lead Inspector, or a Risk Assessor, and must be performed in accordance with the requirements in HUD's *Lead Safe Housing Rule* (24 CFR Part 35, subparts B-R). Information on these requirements can be found at www.hud.gov/offices/lead/enforcement/lshr.cfm.

¹ For instructions on cleaning to eliminate lead dust, go to www.maine.gov/dep/rwm/lead/pdf/dustremovalmaunal.pdf

Beginning April 22, 2010, U.S. Environmental Protection Agency (US-EPA) regulations require renovation, repair and painting contractors to verify that they have adequately cleaned any area where they impacted more than 6 square feet of lead paint on interior surfaces or 20 square feet of lead paint on exterior surfaces of housing and child-occupied facilities built before 1978. This regulation allows for dust testing by a certified Lead Dust Sampling Technician, Lead Inspector or Risk Assessor as an alternative to US-EPA's cleaning verification process to demonstrate that the work area has been cleaned so that no lead dust hazards remain.

3. Lead dust evaluations in homes with intact paint

Homeowners, landlords and tenants may want to screen their residences at certain times to confirm that their on-going maintenance activities keep lead dust below levels of concern. This evaluation should be done in accordance with the "Maine DEP Protocol for Screening for Lead Dust Hazards in Housing" (available at www.maine.gov/dep/rwm/lead) whenever you are testing in the following circumstances.

- a. **Lead dust evaluation following minor repairs or maintenance activities.** Although neither state or federal regulations require lead dust sampling after minor repairs and maintenance activities (e.g., spot repair of paint, replacement of a mercury thermostat with a programmable thermostat, plumbing or electrical work which disturbs less than 6 square feet of painted surface), these activities can release enough lead dust into the home environment to expose young children to an unsafe amount of lead. There are dust sampling kits available in hardware stores, through internet retailers, and through Maine's Health and Environmental Testing laboratory (207-287-2727) which anyone can purchase to check to see if a work area in their home has been adequately cleaned of lead dust after doing a minor maintenance or repair job.
- b. **Lead dust evaluation at unit turnover.** Prior to having a new tenant move in, a property owner may want to document that they are providing the tenant with a unit that is free of lead dust hazards. By showing that a unit does not have lead dust hazards at turnover, a property owner demonstrates a standard of care that will make their property more attractive to tenants. Dust testing performed by a certified Lead Dust Sampling Technician, Lead Inspector, or Risk Assessor is an independent verification that qualifies a landlord to list the tested property on Maine's *Lead-Safe Rental Housing Registry*.
- c. **Lead dust evaluation as part of home energy audit or inspection.** Many property owners and homeowners are having energy audits done on their residential properties. If a pre-1978 home is clean and all paint is in good condition, lead dust sampling can be done during an energy audit as a screen to determine if there is lead dust in the home from friction or impact surfaces (windows, doors, floors, stairs) or from people coming into the house (lead in soil can be tracked into homes, and people can get lead on their clothes from certain jobs and hobbies). Some energy auditors have been trained and certified as Lead Dust Sampling Technicians so that they can perform both the energy audit and a lead dust evaluation in one visit.