Colorado Department of Public Health and Environment

Compliance Bulletin
Solid and Hazardous Waste
Lead-Based Paint Abatement and Lead Waste Management

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Lead is a naturally occurring heavy metal that is hazardous to humans if inhaled or swallowed. It was historically used in paint, gasoline and plumbing, and can be found in many products from batteries to jewelry. Because it is toxic to humans, its use in United States manufacturing has been restricted. Adults exposed to lead can suffer from many ailments including memory and concentration loss, high blood pressure, muscle and joint pain, and reproductive disorders. Lead is even more dangerous to children. If not detected early, children with high blood lead levels can have learning disabilities, behavioral problems, slowed growth and permanent brain damage.

REGULATORY OVERVIEW

Lead is regulated under the authority of multiple laws and regulations. The Environmental Protection Agency (EPA) regulates lead as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), as a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as a toxic substance under the Toxic Substances Control Act (TSCA), limits effluent discharges for lead in water under the Clean Water Act, limits the level of lead that is acceptable in drinking water via the Safe Drinking Water Act, and regulates lead as an airborne contaminant under the National Emission Standards for Hazardous Air Pollutants program (NESHAP) in accordance with the Clean Air Act. The Occupational Safety and Health Administration (OSHA) regulates lead in work-related exposures, while the Consumer Product Safety Commission regulates lead in consumer products, such as paint, toys, furniture, pottery and dishes.

The Colorado Department of Public Health and Environment (the Department) has in-state authority to regulate lead under the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, the Resource Conservation and Recovery Act (RCRA) and the Colorado Solid Wastes Disposal Sites and Facilities Act. The Air Pollution Control Division, Water Quality Control Division and the Hazardous Materials and Waste Management Division share regulatory responsibility for lead. The Air Pollution Control Division regulates inspection and assessment activities for lead as well as the safe removal and handling of lead-based paint materials (abatement). The Water Quality Control Division has authority to regulate lead in public drinking water supplies via the Safe Drinking Water Act and discharges of lead to state waters through the Colorado Discharge Permit System. The Hazardous Materials and Waste Management Division regulates the proper management and disposal of lead-bearing wastes.

LEAD-BASED PAINT ABATEMENT

The Colorado Air Quality Control Commission adopted Regulation No. 19 governing the abatement of lead-based paint from target housing (constructed prior to 1978) and child-occupied facilities. The removal of lead-based paint or lead-contaminated soil from these facilities must be done by state-certified professionals. The Air Pollution Control Division certifies lead contractors, workers, supervisors, inspectors, risk assessors, and project designers. These professionals must complete Air Pollution Control Division-approved course work and pass the appropriate state tests to be certified. State-certified contractors must follow established work practices for removing lead-based paint, minimize dust generation, clean up debris with HEPA-filtered vacuums and take measures to ensure lead levels do not increase due to lead-contaminated fumes and dust.

If you have questions on lead-based paint abatement or certification, contact the Air Pollution Control Division at (303) 692-3150 or by e-mail at lead@state.co.us. The Lead Services Directory on the Air Pollution Control Division's web site (www.colorado.gov/cdphe/leadpaint) lists certified contractors, labs that can analyze lead samples, environmental consultants with portable x-ray fluorescence analyzers and outlets where do-it-yourself home test kits are sold.

Homeowners should not remove lead-based paint themselves as they can increase their exposures to lead-contaminated dust and paint chips. The Consumer Product Safety Commission recommends do-it-yourself removal only for small areas, and then only if a wet method such as liquid paint stripper or wet scraping is used. The homeowner should hire a contractor familiar with lead-based paint hazards and safe paint removal techniques for all other projects.

Lead-Based Paint Disclosure Rule

Federal lead-based paint disclosure regulations require sellers, landlords and real estate agents to warn homebuyers and tenants of lead-based paint hazards. Home purchasers and lessees must be given information about lead-based paint including:

- All known information about the presence or location of lead-based paint in the home or rental and the condition of the painted surfaces.
- Any records and reports on lead-based paint which are available to the seller or landlord.
- An EPA-approved information pamphlet on identifying and controlling lead-based paint hazards.
- An attachment to the contract or lease which includes a lead warning statement and confirms that the seller or landlord has complied with all notification requirements.

Lead-Based Paint Pre-Education Rule

Colorado's Lead-Based Paint Pre-Education Rule (Colorado Air Quality Control Commission Regulation No. 19, Part B) requires renovators to distribute an EPA-approved lead hazard information pamphlet to residents at least 60 days prior to beginning any renovation work in housing constructed before 1978. A renovator is someone doing the renovation work for compensation, including work done for barter or trade. The renovator must provide the pamphlet if the job will require them to disturb more than two square feet of paint. This includes activities such as plumbing installation or repair, drywall removal or installation, painting, flooring installation/removal or electrical work. The rule applies to residential real property owners and managers, general and trade contractors, and handymen providing services to others. Emergency repairs, work performed for free (no exchange of money, goods or services), or do-it-yourself work in your own home is not covered.

When a renovation is performed, the renovator must give the housing owner a copy of the EPA-approved lead hazard information pamphlet and get a signature acknowledging receipt. The renovator must maintain the receipt for at least three years. If the housing is tenant-occupied, pamphlets must be given to both the owner and the tenant and both must sign acknowledging they have received it. If the building being renovated is an apartment building with more than four separate units, pamphlets must be provided to each tenant living in a "to-be-renovated" unit. If the renovation is to occur in a common area (e.g., laundry room, hallway, playground), all residents of the building must be provided with information on the timing and extent of the renovations scheduled to occur. Signs must also be posted notifying dwellers of the work and the hazard. The renovator can mail the information pamphlet, but they must obtain a certificate of mailing for each pamphlet mailed at least seven days prior to the start of renovation work.

LEAD WASTE MANAGEMENT

Household Waste

Home remodeling and repair projects can create many wastes including paint chips, door frames, windows, carpet, chemical stripper sludge, wastewater, sponges, filters, and tape. If the home was built before 1978, these wastes may contain lead. In this case all wastes should be kept out of the reach of children and pets until they can be sent for disposal. Drop cloths, sponges, gloves and disposable work clothes used during remodeling and cleanup should be sealed in heavy-duty garbage bags when they are discarded as these materials may be contaminated with lead dust and paint chips. Larger debris should be wrapped in two layers of 6 mil plastic sheeting and sealed with strong tape.

Because household hazardous waste is exempt from hazardous waste regulatory requirements, a "do-it-yourself" homeowner may dispose of their lead-bearing wastes in their household trash. Keep in mind, however, that wastes with free liquids such as paint cannot be disposed of in a solid waste landfill. Liquid wastes should be solidified by mixing them with an absorbent such as clay cat litter and allowing them to dry before they are discarded. The homeowner may also want to contract for short-term roll-off service with their waste hauler if they will generate large pieces of debris such as door frames and windows, or take the waste to the landfill themselves. Lead-based paint waste generated by a contractor performing abatement or remodeling activities at a residence may also be managed as household waste. This is intended to encourage lead-based paint abatement in target housing by reducing the costs of managing and disposing of lead-based paint waste from residences.

Other household lead-bearing wastes such as batteries and electronics should be recycled where possible. Colorado has enacted a ban on the disposal of many types of electronics wastes in landfills beginning July 1, 2013. Many cities and counties sponsor household hazardous waste programs to help households properly dispose of lead-bearing wastes, including electronics. Household goods that contain lead should be kept out of the reach of young children and pets until they can be recycled or properly discarded.

Non-Household Waste

Non-household generators of lead-contaminated waste must make a hazardous waste determination prior to disposal. Lead-bearing waste must be managed as either a solid waste or a hazardous waste depending upon the results of Toxicity Characteristic Leaching Procedure (TCLP) tests for lead. The TCLP maximum contaminant concentration for lead is 5.0 mg/L (5.0 ppm). Wastes with 5.0 ppm or greater lead content by TCLP exhibit the toxicity characteristic for lead and must be managed as a hazardous waste.

If the waste consists of demolition debris, the appropriate way to collect samples for analysis is by coring a representative portion of the material to be disposed (i.e. core through the wall, including both paint and wood). Because of the relatively small amount of lead present in the paint film on a wall, these wastes may not fail the TCLP test and can be disposed of as solid waste. If the material to be disposed of includes lead-based paint chips, sludge or blasting wastes, they will often fail the TCLP test because these wastes can concentrate lead. All wastes that fail the TCLP test must be disposed of as hazardous waste.

Under Colorado's hazardous waste regulations, electronics wastes from non-household sources must be managed as hazardous or universal wastes and are prohibited from disposal in solid waste landfills. You should refer to the Division's compliance bulletin on the management of electronics wastes for information on proper management.

Lead Contamination in Soil

Risk-based assessments may be performed on sites with lead-contaminated soils to determine if remediation is necessary. These assessments must be made on a case-by-case basis and must have Department approval. A site-specific soil concentration cleanup level for lead can be calculated by taking into account factors such as the extent of the contamination, likely exposure pathways and current and projected land use. Institutional controls and in some cases, engineering controls, can be required to restrict contact with contaminated soil. The preferred alternative is to clean up contamination to a concentration equal to or less than EPA's action level of 400 ppm total lead in soil, which allows for unrestricted use of the impacted area. The Department also uses this concentration level as a soil cleanup objective at contaminated sites. Cleanup to this level is usually achievable since lead is relatively immobile in soil.

The "Corrective Action at Outdoor Shooting Ranges Guidance Document" should be used for characterization and cleanup guidance if lead contamination is present in soil due to shooting range activities. Additional guidance on soil remediation can be found in the "Corrective Action Guidance Document." These and other guidance documents are available on the web site listed below.

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For more information, please contact:

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