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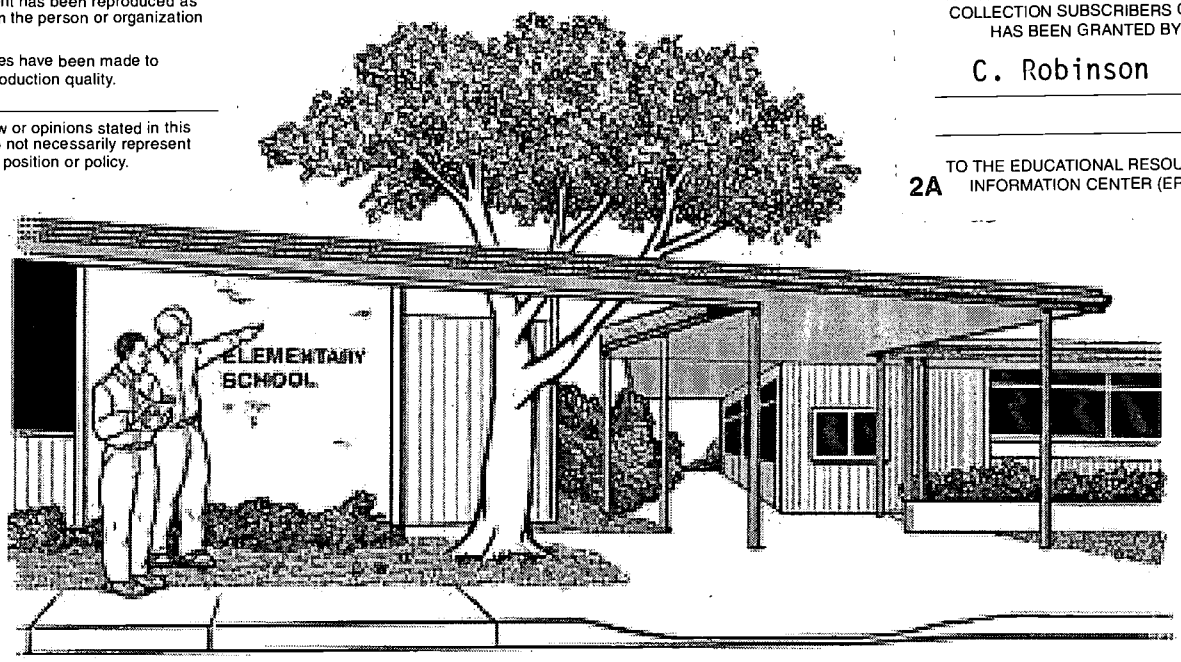
ABSTRACT

This factsheet is for anyone responsible for modernization projects in California's public schools where materials containing lead may be disturbed or where lead abatement is planned. It explains the state requirements for properly dealing with lead hazards so that children and workers are protected. Its sections address why to be concerned about lead in schools, what lead regulations apply to school districts, non-compliance, proper procedures, and resources. (EV)

Lead Safety and School Modernization



A factsheet for California public school:

- Facilities managers
- Business officials
- Maintenance directors
- Anyone responsible for modernization projects.

Full text available at:
http://socrates.berkeley.edu/~lohp/graphics/pdf/moderniz.pdf

Introduction

Why This Factsheet?

This factsheet is for anyone responsible for modernization projects in California's public schools where materials containing lead may be disturbed or where lead abatement is planned. It explains the state requirements for properly dealing with lead hazards so that children and workers are protected. School districts must follow strict state regulations when planning and implementing any major project that may create potential exposure to lead.

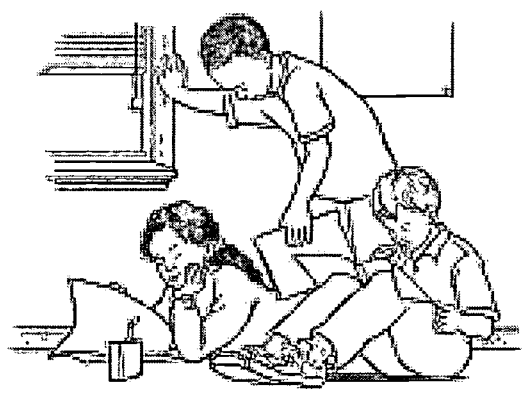
The factsheet focuses on projects with a potential for high lead exposure and contamination, not small-scale Maintenance and Operations work. Contact the Lead-Safe Schools Project at (888) 873-LEAD about requirements for small-scale maintenance jobs.

Whether a job will be done by district staff or by outside contractors, it is essential that lead-safe methods and procedures be made an integral part of the project specifications. Plan on lead safety *before* selecting personnel or putting a job out to bid.

Why Be Concerned About Lead in Schools?

In 1998, a study was conducted by the California Department of Health Services (DHS) of a representative sample of the state's schools. It found that 96% of California elementary schools have lead in the paint, even some built as recently as the early 1990s. Buildings built prior to the mid-1950s may have as much as 50% lead in the paint.

Scientific research has shown that exposure to small amounts of lead dust (such as from paint) can permanently affect the learning abilities of small children. While lead hazards are not the only health concern for school districts, the danger is real. However, experience has shown that lead safety can be successfully integrated into school construction and modernization projects.



What Lead Regulations Apply to School Districts?

California school districts are subject to three main sets of regulations involving lead hazards.

1. **Title 17: Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards.** These regulations are administered by DHS. They outline the state's training and certification requirements for employees whose work may expose them to high levels of lead. They also spell out the special work practices and procedures that are required to protect people in public and residential buildings during lead-related construction and abatement projects. *(Title 17, California Code of Regulations, Division 1, Chapter 8, §35001–36100)*

2. **Cal/OSHA Lead in Construction Standard.** Cal/OSHA requires that steps be taken to protect the health of school district or contracted employees who work around lead. Its standard also incorporates the DHS training and certification requirements for high lead exposure tasks described above. *(Title 8, California Code of Regulations, §1532.1)*

3. **Lead-Safe Schools Protection Act.** This law prohibits use of lead paint and other lead products in schools. It also requires schools to use trained and state-certified Lead Inspector/Assessors when testing for lead, and certified workers and contractors when abating lead hazards. *(California Education Code, §32240–32245)*

What If School Districts Don't Comply?

With the passage of AB 1127 in January 2000, districts are now subject to fines if they don't comply with Cal/OSHA regulations *(Labor Code §6425)*. In addition, districts functioning as the property owner, project manager, and/or contractor have new responsibilities when they hire outside contractors. All parties may be subject to fines when there are violations *(Labor Code §6400)*. However, fines may be secondary to the enormous public relations and potential liability issues that arise when employees or students are exposed to lead.

Procedures

What Procedures Must School Districts Follow?

School districts planning a major construction or modernization project should begin by determining whether lead is present on the job. The district should make this determination prior to selecting the employees who will do the work or contracting with an outside firm. If lead is present, employees or an outside firm with adequate training must be used. The amount of training and the precautions required depend on the nature of the project and how much airborne lead dust workers will be generating in the course of their work.

To determine which requirements apply to your project, you must decide whether the work is primarily a construction or maintenance project that requires controlling lead hazards, or a planned lead abatement project. Some of the requirements are different. Lead abatement is defined by DHS's Title 17 regulations as work intended to reduce or eliminate lead hazards. If a lead abatement project is planned, you will need to follow the requirements for abatement work set out in Title 17. The requirements for both construction and abatement projects are referenced below.

How is Exposure Determined?

For either a construction or an abatement project, you must determine how much airborne lead workers will be exposed to on the job. This is done by sampling the air a worker breathes while working. Cal/OSHA's permissible exposure limit (PEL) for lead is 50 µg/m^3 (50 micrograms of lead per cubic meter of air). If air sampling results show workers are exposed above the PEL, Cal/OSHA requires that certain protections be in place.

You can get an idea before work begins whether workers are likely to be exposed above the PEL by considering what tasks they will be doing. Cal/OSHA has a list of "trigger tasks" that are presumed to expose workers to lead at levels above the PEL. Trigger tasks include manual and power sanding, scraping, demolition, and abrasive sandblasting. Lead-safe precautions must be in place while workers are performing trigger tasks or until air sampling finds that the exposure is actually below the PEL. These requirements are described in the next section.

Using the Checklist

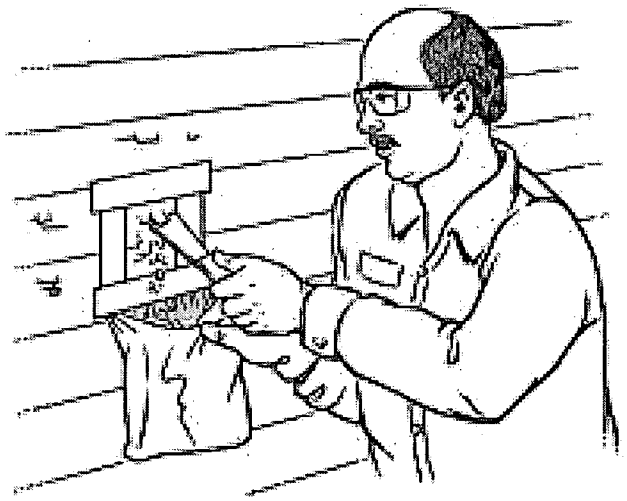
The school district must assure that the requirements set out in the three applicable regulations are followed if lead is present, whether the work is done by the district's own employees or by an outside contractor.

Use the following checklist as a planning tool to design and implement a lead-safe project that meets all legal requirements. If the job will be contracted out, include the requirements in the scope of work and written contract.

Note: The numbers following each item listed below [1,2,3] correspond to the three sets of regulations listed on page 3 of this factsheet.

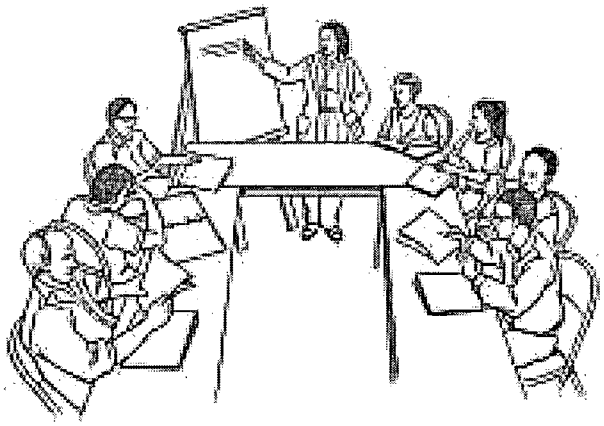
Determine If Buildings Have Lead Paint or Materials

- ☐ Test painted surfaces and materials (using XRF and/or paint chip analysis) to assess the amount of lead.
- ☐ Inform employees of the results if materials are found to contain lead. [2]
- ☐ If the job is a planned lead abatement project, use a state-certified Lead Inspector/Assessor to perform a lead hazard evaluation and risk assessment before beginning work. [1]
- ☐ If the job is a planned lead abatement project, notify the Department of Health Services. [1]



Checklist

Use Appropriately Trained Personnel



- ☐ Ensure that employees and their supervisors are state-certified to perform lead work if they will be involved in lead abatement projects or doing construction/ maintenance work where lead exposures will exceed the Cal/OSHA PEL of 50 $\mu g/m^3$. [1,2,3]

- ☐ Use a state-certified supervisor on projects with significant lead hazards (causing exposure over 50 $\mu g/m^3$) to ensure competence to identify lead hazards and take appropriate corrective measures. [1,2,3]

Conduct Air Sampling to Assess Exposure

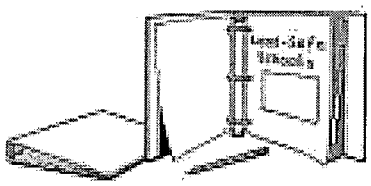
- ☐ Measure airborne lead levels for each type of task where workers are potentially exposed to lead dust or fumes. The results of air sampling performed in the past 12 months on a job with similar operations and conditions may be used. Sampling is not needed when the concentration of lead on the surface coating to be disturbed is below 0.06% and workers are not doing trigger tasks as defined by Cal/OSHA. [2]

- ☐ Inform employees in writing of air sampling results within 5 days of receiving the results. [2]

- ☐ Repeat air sampling whenever there is a significant change in tasks, environmental conditions, control measures, personnel, surfaces, or percentage of lead which may result in higher exposures. [2]

Use Safe Work Practices

- ☐ Develop a written lead compliance program for keeping exposures below the PEL. [2]

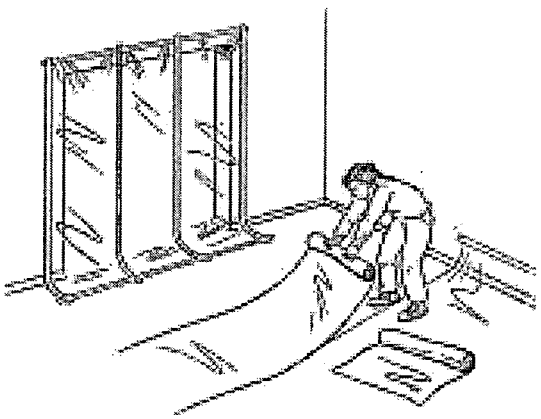


- ☐ Reduce airborne lead dust as much as feasible by using appropriate equipment (such as HEPA vacuum attachments on tools), mechanical ventilation, and/or safer work practices (working wet, cleaning up thoroughly). [1,2]

- ☐ If conducting a planned lead abatement project, follow the work practices outlined in the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* (including not using prohibited practices). Title 17 requires compliance with the HUD Guidelines. [1]

- ☐ Keep work areas as free as possible from lead contamination through regular wet cleaning, and/or by using a HEPA vacuum. Ban dry sweeping as a clean-up method. [1,2]

- ☐ Avoid spreading contamination outside the work area by using containment. Containment can be a system, process, or barrier (like plastic sheeting) used to keep lead hazards inside a defined area. [1]

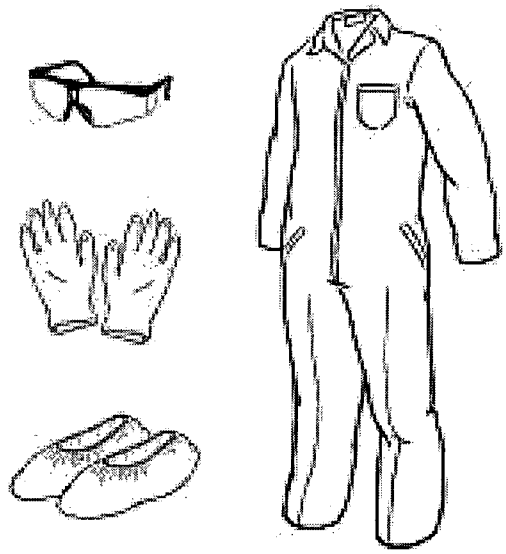


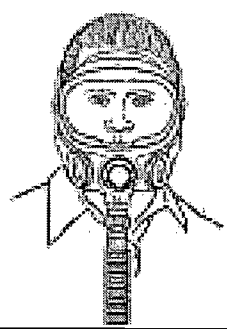
- ☐ Post signs restricting access to any work area where employees are exposed to lead above the Cal/OSHA PEL. [2]

Checklist

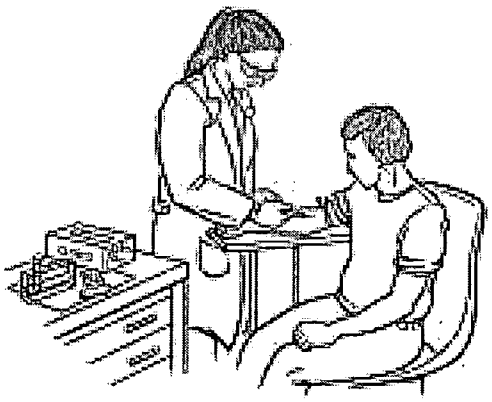
Protect Workers

- ☐ Prohibit eating, drinking, using tobacco, or applying cosmetics in lead work areas. [2]
- ☐ Provide wash-up facilities with soap and clean towels. Require employees to wash before breaks and at the end of shifts. [2]
- ☐ Provide protective work clothing (disposable or regularly laundered) and work shoes to employees. [2]
- ☐ Prohibit work clothes and shoes from being worn off the job site. [2]
- ☐ Provide a clean area for changing clothes away from the work area. Provide storage for clean clothes. [2]
- ☐ Select appropriate respirators based on the task performed and exposure levels. If workers are doing trigger tasks, respirators must be worn until air sampling finds exposures are below the PEL. [2]
- ☐ Implement a complete written respiratory protection program when respirators are used. The program should specify when respirators will be used, how they will be selected, and how fitness to wear respirators will be determined. It should provide for annual fit-testing, regular seal checks, training, cleaning, and storage. [2]





Perform Blood Lead Testing



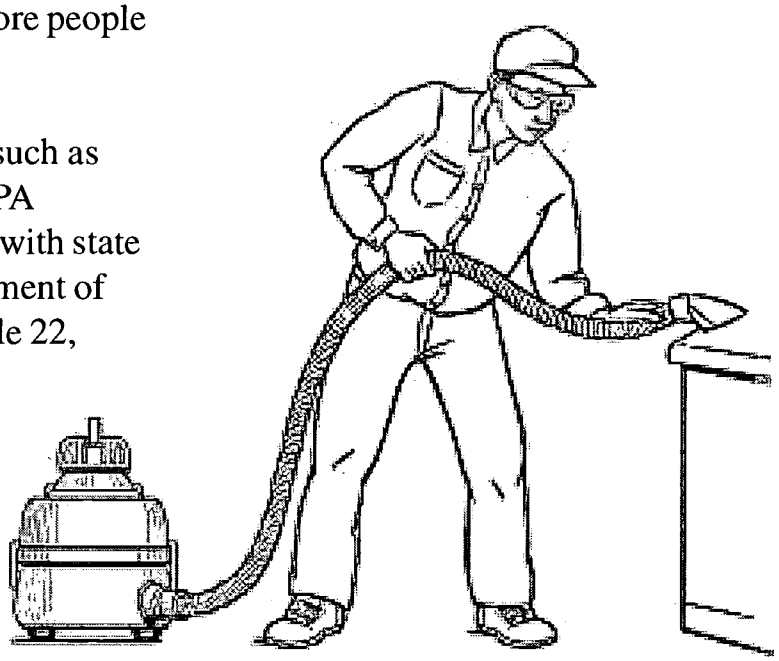
- ☐ Establish a lead-specific medical program that includes blood lead level (BLL) tests. The program must be under the supervision of a physician knowledgeable about the Cal/OSHA Lead in Construction standard. [2]

Ensure Proper Cleanup and Disposal

- ☐ Take all necessary steps to leave the job site free of lead contamination when work is finished. [1,2,3]

- ☐ Use a certified Lead Inspector/Assessor to conduct clearance inspections (to determine whether work areas have been sufficiently cleaned) before people may re-enter. [1,3]

- ☐ Dispose of hazardous waste (such as lead paint chips and used HEPA vacuum filters) in accordance with state and federal laws. (See Department of Toxic Substances Control, Title 22, CCR)



Resources

For More Information

Lead-Safe Schools Project

Labor Occupational Health Program
University of California, Berkeley
(888) 873-LEAD
www.lohp.org

Offers free materials, technical assistance, and training programs on lead for California school districts.

Occupational Lead Poisoning Prevention Program

Occupational Health Branch
California Department of Health Services
(510) 622-4332
www.dhs.ca.gov/ohb/olppp

Provides free materials, information, and services to workers, employers, and health professionals to prevent lead poisoning in California workplaces.

Childhood Lead Poisoning Prevention Branch

California Department of Health Services
(800) 597-LEAD
www.dhs.ca.gov/childlead

Helps identify lead burdened children and prevent environmental exposures to lead. Enforces Title 17 and operates the state certification program for working with lead.

School Facilities Planning Division

California Department of Education
(916) 445-2144
www.cde.ca.gov/facilities

Assists school districts and communities in creating well-planned K-12 learning environments in safe, clean, and up-to-date schools.

Cal/OSHA

Consultation Service—(800) 963-9424
www.dir.ca.gov/DOSH/consultation.html

Provides free services to employers, including on-site evaluation of health and safety conditions in the workplace, training, publications, and information.

Compliance Office—(415) 703-5100
www.dir.ca.gov/DOSH/

Investigates worksite fatalities, serious injuries or illnesses, and complaints about workplace hazards.

California Department of Toxic Substances Control

(916) 324-1826
www.dtsc.ca.gov

Regulates the disposal of hazardous waste and provides information and assistance.

U.S. Department of Housing and Urban Development (HUD)

Office of Lead Hazard Control
(800) 245-2691
www.hud.gov/offices/lead/

Has detailed information on HUD Guidelines.

This factsheet is a product of the California Lead-Safe Schools Project. Funded by the California Department of Health Services (CDHS), the project is a collaboration among the following organizations: California Childhood Lead Poisoning Prevention Branch (CDHS); California Occupational Lead Poisoning Prevention Program (CDHS); Labor Occupational Health Program (LOHP) at the University of California, Berkeley; and the California Department of Education, School Facilities Planning Division.

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