

**Solano County
Lead-Based Paint
Abatement Program
Work Plan**

**Prepared By:
Solano County Resource Management Department
Environmental Health Services Division**

January 26, 2022

Preface

The purpose of the Lead-based Paint Abatement Program is to identify and remediate lead-based paint hazards in houses built before 1978 across Solano County. Lead-based paint is the predominant source of childhood lead poisoning. Although lead-based paint was banned for residential use in 1978, it remains present in millions of homes in California. In California, all homes built before 1978 are presumed to contain lead.

In July 2019, the County Counsels and City Attorneys of ten California jurisdictions reached a settlement on behalf of the People of the State of California that provided funds to clean up the lead paint that poisons children across California each year. Under the settlement agreement, defendants The Sherwin-Williams Company, ConAgra Grocery Products Company, and NL Industries, Inc., have been ordered to pay \$305 million to the counties of Alameda, Los Angeles, Monterey, Santa Clara, San Mateo, Solano, and Ventura; the City and County of San Francisco; and the Cities of Oakland and San Diego, to address lead paint-related hazards, which to this day continue to be the most significant environmental hazard for children in California and around the country.

The objectives of this plan include:

- To provide guidelines and workflows for the Lead Paint Abatement Program implementation
- To establish standards (based on state regulations) for abatement program eligibility and prioritization
- To establish a detailed working procedure for lead-based paint hazard assessment and removal in pre-1978 residential units
- To define operational and coordinating functions and responsibilities of participating public agencies and private contractors
- To provide guidelines for outreach and education about lead hazards to our Solano County communities

Table of Contents

Chapter 1. Program Management and Operations

- 1.1. Lead Paint Abatement Team (LPAT) Duties
- 1.2. Lead Paint Abatement Team Qualifications and Requirements
- 1.3. Solano County Lead Paint Abatement Program (SCLPAP) Work Flow
- 1.4. Program Operations
 - 1.4.1. Adequacy of Staff
 - 1.4.2. Client File Contents and Standardize File Format
 - 1.4.3. Records Retention
 - 1.4.4. Deferral Policy
 - 1.4.5. Appeal Process
 - 1.4.6. Client Complaint Process
 - 1.4.7. Resident Protection and Worksite Preparation
 - 1.4.8. Disposal of Lead Waste

Chapter 2. Eligibility and Documentation

- 2.1. Outreach and Database Maintenance
- 2.2. Application Intake
- 2.3. Determination of Property Eligibility
- 2.4. Lead Risk Assessment and Environmental Review
- 2.5. Findings and Determination
- 2.6. Relocating Planning
- 2.7. Cost Consideration
- 2.8. Confirming Applicant Eligibility
- 2.9. “Owner’s Permission for Lead Mitigation Work” Form

Chapter 3. Lead Assessment and Clearance Test Procedures

- 3.1. Lead Assessment Procedures
- 3.2. Clearance Test Procedures

Chapter 4. Contractor Procurement

- 4.1. Lead Abatement Regulation
- 4.2. Lead Hazard Control Criteria and Options

- 4.3. Requirement of General Contractor
- 4.4. Pollution Occurrence Insurance
- 4.5. Prompt Payment Requirement
- 4.6. Contractor Non-Cooperation

Appendices (Under development)

- 1. Application Form
- 2. Lead Paint Abatement Program Webpage
- 3. Application Eligibility/Denial Letter
- 4. Lead Assessment Result Letter
- 5. Owner's Permission for Lead Litigation Work Form
- 6. Lead Hazard Assessment Report
- 7. Client File Content and Compliance Check List
- 8. Deferral Notification

Glossary of Terms

Childhood Lead Poisoning Prevention Program (CLPPP)

Solano County Health Department Childhood Lead Poisoning Prevention Program operates under the guidance of California Department of Public Health's Childhood Lead Poisoning Prevention Branch. CLPPP provides services to educate and eliminate lead hazards for children in Solano County.

California Department of Public Health (CDPH)

State department responsible for public health in California.

Environmental Health Services Division (EH)

Solano County Environmental Health Services Division, providing oversight for the Lead Paint Abatement Program.

Lead Paint Abatement Team (LPAT)

The LPAT, headed by an Environmental Health Supervisor, is responsible for coordinating and overseeing lead paint assessments, abatement, and clearances.

Environmental Health Services Division Manager (EH Manager)

Manager for Solano County Environmental Health Services Division, who will coordinate and facilitate the implementation of the Lead Paint Abatement Program with the Lead Paint Abatement Team.

EPA

U.S. Environmental Protection Agency.

HUD

U.S. Department of Housing and Urban Development.

General Contractor (GC)

Private contractor(s) retained by Solano County, responsible for abatement work conducted in the lead paint hazard removal and disposal process.

General Service Administration's Per Diem Rates

Provides reimbursement guidelines for lodging, meal and incidental costs incurred during SCLPAP work activities.

Lead Assessor (LA)

Certified personnel who conduct lead paint risk assessment and clearance testing.

Lead-Based Paint (LBP)

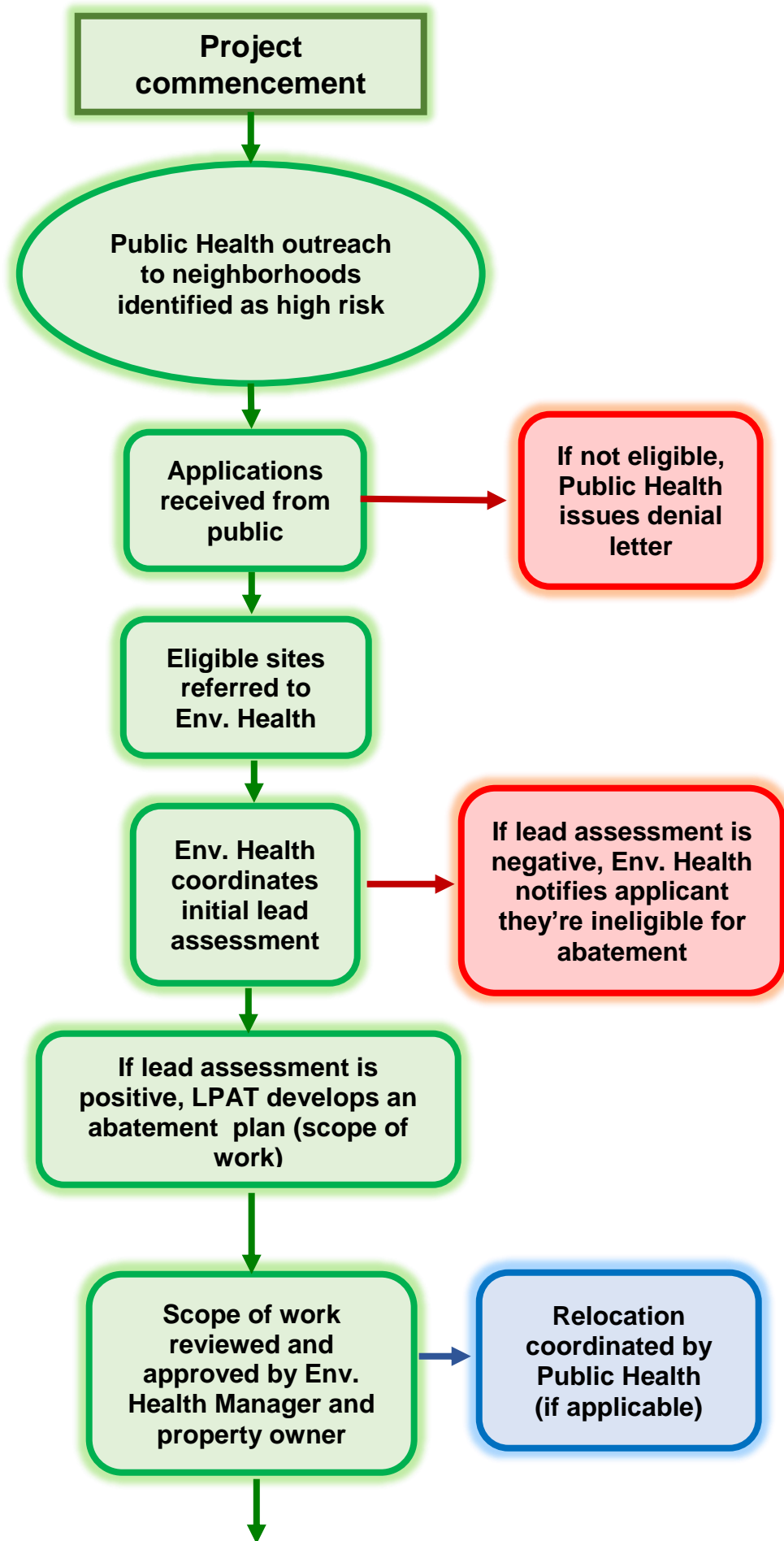
Paint containing lead, which can cause nervous system damage, stunted growth, kidney damage, etc.

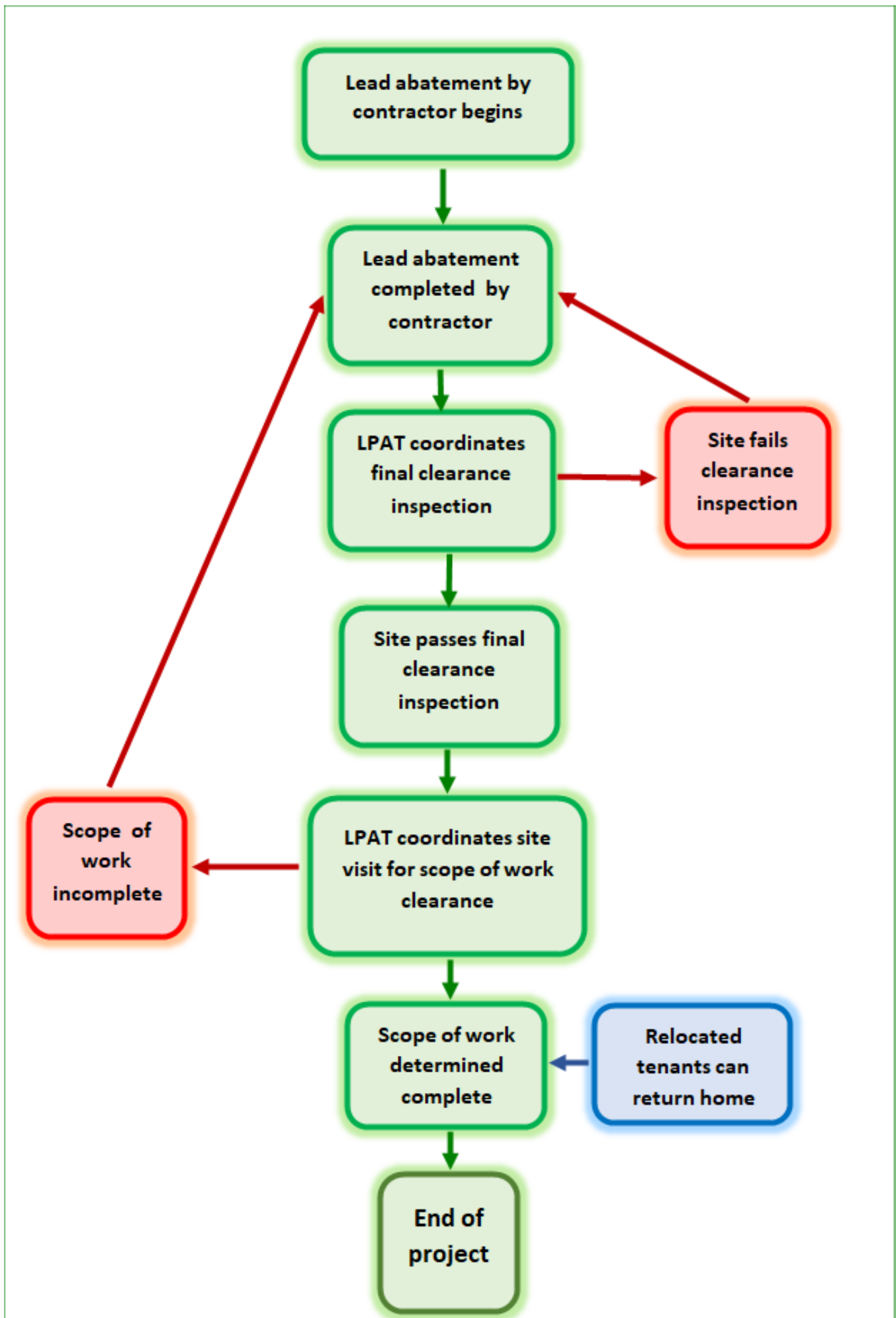
Request for Proposal (RFP)

A bidding process where an agency or company interested in procurement for a commodity or service, asks potential suppliers to submit business proposals.

X-Ray Fluorescence (XRF) Device

A handheld device that measures the presence and quantity of lead-based paint on surfaces.





Chapter 1. Program Management and Operations

1.1. Duties of Lead Paint Abatement Team

The Solano County Environmental Health Services Division will utilize EH staff and contract with private contractor(s) (further referred to as the Lead Paint Abatement Team- LPAT) to identify and oversee lead-based paint hazard abatement in eligible households. The LPAT will provide coordination and oversight for lead assessment, scope of work preparation, abatement, and clearance activities contracted to appropriate parties.

The LPAT will directly report to the Environmental Health Manager. The LPAT will meet regularly with the Environmental Health Manager to review progress towards program objectives, identify barriers, develop solutions, coordinate partnerships, prepare reports, evaluate program activities and outcomes, monitor financial expenditures, and ensure timely reporting. Finances will be tracked in existing Solano County systems for payroll, contracts, supplies, abatement, relocation and other expenses. Indirect cost rates will be established in accordance with standard accounting principles. Project status and activities will be tracked in an updated relational database and the LPAT will review progress regularly to identify and resolve barriers to production.

1.2. Lead Paint Abatement Team Qualifications and Requirements

The LPAT must have working knowledge of and the capacity to accomplish the following:

- Coordination of Lead Risk Assessment activities through a certified Lead Inspector/ Assessor, in accordance with 17CCR Section 36000
- Oversight of formal bidding, contractor selection, and contract award activities in accordance with Federal and State Procurement Laws
- Monitoring abatement project, insuring project completion and project close-out
- Complete and undertake the program activities as reflected in the Solano County Lead Paint Abatement Program Workflow chart
- Demonstrate the ability to accept payment on a reimbursable basis
- Report and communicate with EH Manager on bi-weekly basis
- Must include a CDPH-certified Lead Project Monitor or Supervisor

1.3. Solano County Lead Paint Abatement Program (SCLPAP) Work Flow

- 1) Client applies for SCLPAP consideration through the designated webpage.
- 2) Public Health review client application and documentation to determine client eligibility using guidelines provided in Chapter 2.
- 3) LPAT sends a CDPH certified Lead Assessor to conduct a complete Lead Risk Assessment of the property, using guidelines listed in Chapter 3, and LPAT produces a scope of work and cost estimation.
- 4) The measures produced from the scope of work are documented to create a work order. This is used by the LPAT when issuing scope of work and work order to contractor.
- 5) The LPAT contracts out the work to qualified lead abatement contractors in accordance with the Federal and State Procurement Method. The procured contractor conducts work measures, as stated on the scope of work, at the property.
- 6) Site visit and meeting includes LPAT representative(s), , and property representative, to go over the lead abatement work to be performed
- 7) Relocation staff are notified if residents will need to be relocated.
- 8) EH Manager and LPAT review case, scope of work and cost estimation.
- 9) LPAT issues Notice to Proceed to GC.
- 10) After work is complete, the CDPH-certified Lead Assessor will perform clearance test of the property using the Clearance Test Procedure listed in Chapter 2.
- 11) Once the unit passes clearance test by the Lead Assessor, LPAT or designee will perform final clearance inspection.
- 12) Relocation staff coordinate move-in of residents.
- 13) GC provides closeout package to LPAT. Solano County Finance team pays GC invoice.
- 14) Case closed. EH Manager/LPAT document File Content and Compliance Checklist, and add case to database.

1.4 Program Operations

1.4.1. Adequacy of Staff

Effective administration and implementation of the Solano County Lead Paint Abatement Program at the local level requires considerable skill and knowledge in a wide variety of subject areas. There are numerous methods available to meet these needs. LPAT may maintain direct hire work crews (employees) or may hire sub- contractors to complete all or part of the abatement activities.

Whatever methods are used, it is the responsibility of the EH Manager and LPAT to ensure that sufficient expertise is available to operate the Solano County Lead Paint Abatement Program effectively.

1.4.2. Client File Contents and Standardize File Format

The EH Manager, Public Health, and LPAT must maintain clients' files that demonstrate eligibility (via assessment), application approval, costs, clearance testing, final inspections, etc. All files presented to EH Manager/LPAT for review and approval must include documentation for each client who receives services. The EH Manager/LPAT are required to review the file and confirm that all required documents are found within the file. The Client File Content and Compliance Checklist must be maintained to facilitate file review.

The LPAT, EH Manager, and Public Health are required to maintain information concerning abatement properties in file folders that have individual sections, or place separation tabs, to note all actionable workplan steps.

The LPAT, EH Manager, and Public Health must maintain adequate records for each individual or family served under the Lead Paint Abatement Program. Solano County Lead Paint Abatement Program-issued forms can be found in the Appendices. These documents are required in all client files, as applicable.

Section 1: Intake

This section must include documentation that will provide proof of eligibility in accordance with Chapter 2 of this Work Plan. Please refer to the Client File Content and Compliance Checklist found in the Appendix for required documents. The documents listed and required in the Appendix are inclusive of any additional documents deemed necessary or identified by the EH Manager or LPAT.

Lead paint abatement applications must be determined complete and verified by Public Health.

Other listed documents include:

- Proof of Ownership/Residency
- Application Eligibility/Denial Letter

Section 2: Field/Project Paperwork

The documentation required in this section of the client file must demonstrate adherence to the lead paint abatement process and workflow (see Section 1.3). These documents will include the following:

- Lead Risk Assessment Report
- Lead Assessment Result Letter
- Relocation Information/Agreement
- Relocation Invoice
- Contractor Licenses/Worker Certificates
- Scope of Work
- Cost Estimation
- Owner's Permission for Lead Litigation Work Form
- Notice to Proceed
- GC Invoices (Material and labor)
- Job Completion Photos
- Clearance Test Reports

1.4.3. Records Retention

The EH Manager/LPAT shall retain documentation as described in section 1.4.2 for three years (from the day of project completion) on site and seven years in storage after submitting the final expenditure report. Records must be maintained until completion of actions on all litigation, claims, and negotiations.

1.4.4. Deferral Policy

The LPAT must postpone work when problems occur that cannot be remedied within the scope of allowable measures identified in the Solano County Lead Paint Abatement Program. Major building rehabilitation and hazard (other than lead) work are beyond the scope of the program. Units must be deferred if necessary corrective work is beyond the scope of the program.

Clients must be notified in writing after the site visit when a determination is made to defer a project. The "Deferral Notification Form" can be found in the Appendix, and must include the reason(s) for deferral, any testing results, and appeal rights. The LPAT and EH Manager are expected to make reasonable efforts on behalf of their clients to find alternative assistance when Solano County Lead Paint Abatement Program funds are unable to address conditions that lead to deferral. When possible, the notice shall include a list of potential agencies with funding designed to address the

specific issue which precluded a client from participating.

Additional considerations that may lead to deferral shall include any condition which may endanger the health and/or safety of the occupant, work crew, or subcontractor as determined by the LPAT at its sole discretion (i.e., illegal activity, pets, animal waste, and hoarding).

Housing that is substandard or has health and safety issues that require a capital-intensive investment is beyond the scope of the Solano County Lead Paint Abatement Program. While this policy does not cover every scenario that may be encountered, it includes the most common issues that the LPAT must address when making the determination to defer a unit:

Structural Deficiencies include but are not limited to the following: Foundation is compromised, or roof deficiencies exceed minor repairs.

Health Hazards include but are not limited to the following: Sewage problems, lack of plumbing, insect or rodent infestation, asbestos flaking and severe moisture problems.

Safety/Code Violations: Faulty electrical wiring or other issues documented by a local code inspector or public utility technician.

1.4.5. Appeals Process

If a property cannot be provided lead-based paint abatement, the applicant must be notified in writing and given the option to reapply if the problem is corrected. The applicant may appeal the decision to the EH Manager. The EH Manager will review the situation and advise the LPAT and the applicant of the findings. If the deficiencies are corrected and the applicant re-applies, the LPAT will provide services based on program workload.

1.4.6. Client Complaint Process

The LPAT must ensure that applicants are advised of their internal complaint process that will allow applicants to file formal complaints when necessary. Complaints can be filed with the EH Manager when the LPAT are unable to resolve the matter with

clients.

1.4.7. Resident Protection and Worksite Preparation

Many forms of paint-disturbing work, including renovation, maintenance, and rehabilitation, as well as lead hazard controls, generate varying amounts of lead dust, paint chips, and other lead-contaminated materials. The LPAT must ensure that while lead paint abatement work is being performed that the resident protection and worksite preparation guidelines are followed. The HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition), “Chapter 8 Resident Protection and Worksite Preparation” details the preparation measures that a lead contractor or sub-grantee crew should take in order to protect the residents of the unit. Not only do these measures help protect the residents, but they also protect the resident’s belongings and expedite the clean-up process after completion of work.

The following hyperlink will direct the LPAT to the guidelines:

[HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing \(2012 Edition\), “Chapter 8 Resident Protection and Worksite Preparation”](#)

1.4.8. Disposal of Lead Waste

The LPAT shall follow guidelines from the EPA regarding the disposal of the garbage/lead waste that is generated by the contractors while conducting lead abatement work. As per the EPA guidance, it states that “EPA’s policy statement allows contractor-generated LBP waste to be disposed of as household waste”.

The following hyperlink will direct the Sub-grantees to the guidance:

- [Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint Activities Conducted in Households \(August 2000\)](#)

Chapter 2. Eligibility and Documentation

This Chapter provides guidance regarding the application intake process, eligibility of properties and the documentation requirements for participants in the Lead Paint Abatement Program. Dwelling units are to be determined to be eligible for lead abatement assistance based on the presence of lead-based paint hazards and current State Code.

2.1. Outreach and Database Maintenance

Currently, Solano County Public Health/Environmental Health has a Childhood Lead Poisoning Prevention Program and as such, receives notification of children with elevated blood levels from the state of California and provides nurse case management to these children and their families. This collaboration allows for outreach to high-risk, low-income families through mapping data provided from the California Department of Public Health. In addition, Public Health staff will conduct outreach to reach high-risk low-income families with young children by building on partnerships with community organizations, healthcare providers and social service agencies.

All applications received and processed will be tracked in a database. The database will be accessible by all Public Health and LPAT staff. Once a property is deemed eligible, the enrollment will proceed. Enrollment of the homes will be subject to the prioritization schedule approved by the Board of Supervisors.

2.2. Application Intake

The homeowner or tenant (referred to as the “Applicant”) submits an Application Form to Public Health. If the applicant is the tenant, the property owner is required to be the signatory on all documents.

2.3. Determination of Property Eligibility

The Lead-based Paint Abatement Program **excludes** the following:

- Institutional group quarters, including correctional facilities, nursing homes, dormitories, non-family military housing (e.g. barracks), mental health psychiatric rehabilitation residences, alcohol/detox living facilities, supervised apartment living quarters for youths over 16, schools, and non-home-based day-care centers

- Housing designated exclusively for the elderly or occupied by the elderly, unless children are regularly present
- Housing not occupied by young children for which clear evidence exists the demolition will occur within two years
- Houses constructed after 1980
- Properties documented by an inspection to not contain any lead-based paint

2.3.1 Project Prioritization - Public Health will review each application to determine eligibility of the applicant's residence:

- If residence is built before 1978, case is eligible for an onsite Lead Inspection/Risk Assessment. Onsite visit and assessment shall be conducted within 30 days after an application is deemed complete
- If residence is occupied by any child less than 6 years old, or a child less than 6 years old spends 3 hours or more each day at the property for 2 or more days a week (at least 60 hours during the calendar year), the case is eligible for an onsite Lead Inspection/Risk Assessment. Onsite visit and assessment shall be conducted within 14 days after application is deemed complete
- If there is any pregnant woman living at the property, the case is eligible for an onsite Lead Inspection/Risk Assessment. Onsite visit and assessment shall be conducted within 14 days after application is deemed complete

If the applicant is not eligible for the program, Public Health will notify the applicant that the application is denied.

2.4. Lead Risk Assessment and Environmental Review

This Chapter outlines the regulatory levels and actionable levels for a lead hazard, and the criteria for the Lead Assessor. See details of inspection procedure in Chapter 3- Lead Assessment and Clearance Test Procedures.

2.4.1. Regulatory levels for Lead Hazards

California Title 17 Lead Hazard definitions conform to EPA levels (40 CFR Part 745, 1/5/2001). The following table outlines positive response criteria for Lead Hazard in lead-based paint:

Title 17 (April 30, 2008) REGULATORY LEVELS FOR LEAD HAZARDS

Lead-based paint (XRF):	$\geq 1.0 \text{ mg/cm}^2$
Lead-based paint (lab):	$\geq 5,000 \text{ ppm}$
Lead-based paint (lab):	$\geq 0.5\% \text{ by weight}$
Interior floor dust:	$\geq 40 \text{ }\mu\text{g/ft}^2$
Interior window sill/horizontal surface dust	$\geq 250 \text{ }\mu\text{g/ft}^2$
Exterior floor/horizontal surface dust	$\geq 400 \text{ }\mu\text{g/ft}^2$

*Reference of 40 CFR Part 745: <https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=79d9123c529d8f8ca792833afe6b664f&ty=HTML&h=L&n=pt40.31.745&r=PART>

2.4.2. Lead Assessor Criteria

1. Certified as a CDPH Inspector/Assessor (I/A)
Inspector/Assessor Certification Requirements

All Lead Assessors must become certified as an I/A (17CCR Section 36000). The certification requirements are as follows:

- Completion of a 40-hour Lead-Related Construction Inspector/ Assessor training from a training provider accredited by CDPH
 - Successful completion of the State certification examination
2. Qualified as one of the following:
- i. Registration as an Environmental Health Specialist (REHS) or
 - ii. American Board of Industrial Hygiene (ABIH) recognition as a certified Industrial Hygienist (CIH) or
 - iii. Bachelor's Degree or higher in a biological chemical or physical science or related field and one year of experience conducting visual assessments and testing or sampling paint, dust, soil and water.

2.5. Findings and Determination

Identification and reporting of actionable lead paint:

- The level of lead in paint to be considered actionable under this plan should be $\geq 1.0 \text{ mg/cm}^2$ (or $\geq 5,000 \text{ ppm}$ if loading cannot be measured for technical reasons).
- The level of lead in settled dust to be considered actionable under this plan should be $\geq 10.0 \text{ }\mu\text{g/ft}^2$ on floors and $\geq 10.0 \text{ }\mu\text{g/ft}^2$ on interior window sills. Dust lead should be measured using the standard wipe sampling method.

The LPAT will notify the applicant via a Lead Assessment Results Letter.

2.6. Relocation Planning

The EH Manager and/or LPAT will review the scope of work produced by the contracted Lead Assessor, and forward to Public Health staff to determine whether or not the work scope will require the occupants to be temporarily relocated.

If the occupants (owner occupied or tenant occupied) must be temporarily relocated, Public Health staff must produce a temporary relocation plan for the temporarily relocated occupants (where will the occupants be temporarily housed, for how long, etc.). The relocation plan is to be provided to the temporarily relocated household and the LPAT. On the version specifically provided to the LPAT, the relocation plan should also include the estimated cost of temporary relocation.

For resident-occupied units, where the household must be temporarily relocated due to the scope of work, the owner and residents are encouraged to stay with family or friends during the period of lead abatement work. After the homeowner occupant has exhausted all options to stay with family or friends and is still unable to find temporary accommodations during lead abatement work, the Lead Paint Abatement Program shall provide the residents with temporary relocation accommodations within the General Services Administration (GSA) Per Diem Guidelines.

*GSA Per Diem Guidelines link: <https://www.gsa.gov/travel/plan-and-book>

2.7. Cost Consideration

Before moving an applicant forward in the program, the LPAT shall calculate any foreseeable costs related to the project. To best utilize settlements funds and maximize the number of projects that can be completed, lead-based paint abatement projects will fall under one of two categories, with the LPAT making the determination which category. Settlement funds directly paying for lead abatement work (approx. \$3.2 million) will be split in half between these categories. Category 1 provides for more extensive lead abatement, with an estimated cost of \$30,000 per project, for applicants that meet criteria identified in 2.3.1 – Project Prioritization. All other eligible projects will fall into Category 2 and will have a maximum cost cap of \$10,000 which will primarily focus on

door and window replacement (high-friction surfaces). The LPAT work group may develop a process requiring matching funds for more intensive abatement projects and will maintain flexibility in how funds are distributed between projects to ensure prudent, responsible, and equitable dissemination of settlement funds. For projects in the second category that exceed \$30,000, applicants can request additional funds to cover additional project costs that would be considered by the LPAT and taken to the Solano County Board of Supervisors for approval.

2.8. Confirming Applicant Eligibility

If the applicant's project cost falls within the allowable cost per unit, and the EH Manager approves to proceed, the Lead Paint Abatement Program shall send the applicant a letter stating that they are eligible for lead mitigation services.

2.9. "Owner's Permission for Lead Mitigation Work" Form

After an applicant has been determined to be eligible, the LPAT must transfer the measures of the scope of work to the "Owner's Permission for Lead Mitigation and Healthy Homes Work" form. The LPAT must go over the work to be done with the property owner and obtain the owner's signature as authorization for the Lead Paint Abatement Program to install or sub-contract the lead abatement and healthy homes measures at the property. The owner's signature also certifies that the property is not in foreclosure or scheduled for demolition within 12 months from the date of work.

Chapter 3. Lead Risk Assessment and Clearance Test Procedures

This chapter provides detailed guidance and procedures of initial lead risk assessment and clearance test for the Lead Paint Abatement Program.

3.1. Lead Risk Assessment

3.1.1. Visual Assessment/Digital Photo Documentation

a. Draw a Sketch of the Property

The Assessment Report has a grid area to draw a sketch of the property. Provide a sketch of the property so that all XRF readings/sample locations can be identified on the sketch. Label the sides of the dwelling with A (street address), then clockwise B, C and D. Note that test locations within each room should correspond with the building exterior, e.g., side A of the room corresponds with side A of the building exterior. Label each room. Include window and door locations in the building outline. Identify exterior features such as porches, patios, balconies, fences or sheds. The same labeling scheme applies to multi-unit dwellings. The side of the apartment unit that corresponds with the street address of the complex is considered side A regardless of the location of the front door of the apartment unit. Label any common areas near the unit that were tested.

See Appendix Lead Assessment Report for reference.

b. Conduct Visual Assessment and Classify Paint Condition

Use Assessment Report to document the visual assessment and general comments about the paint condition on the interior and exterior of the property. Assess the condition of all interior and exterior painted components in the rooms/areas. This can usually be done at the same time as the sketch is drawn.

- **Intact** for components with paint with no visible deterioration.
- **Fair** for:
 - Large surface area exterior components with less than or equal to 10 square

feet of deteriorated paint.

-Large surface area interior components with less than or equal to 2 square feet of deteriorated paint.

-Small surface area exterior and interior components with less than or equal to 10 percent deteriorated paint.

- **Poor** for:

-Large surface area exterior components with greater than 10 square feet of deteriorated paint.

-Large surface area interior components with greater than 2 square feet of deteriorated paint.

-Small surface area exterior and interior components with greater than 10 percent deteriorated paint.

Document the property appearance by taking digital photos, if possible. Take several pictures of the exterior of the house; then take additional pictures of test/sample locations, especially if lead hazards are identified.

3.1.2. Paint Sampling Strategies

a. Select Test Locations Using Minimum Sampling Procedures

Locations for XRF readings are adapted from the June 1995, HUD Guidelines Chapter 5: Dust Sampling Plan for Risk Assessments. Chapter 5 prioritizes sampling rooms/areas based on where a child spends time and areas likely to have been painted with LBP. These areas include the child's bedroom or sleeping area, main interior play area, kitchen or bathroom and exterior play area (procedure for homes built in 1978 or built before 1978). Kitchens, bathrooms and the building exterior were typically painted with LBP because these areas are subject to moisture and heat.

Test components within the rooms/areas that are most likely to be painted with

LBP, have paint in fair or poor condition. Door and window system components should be given the highest priority for testing since these components are friction/impact surfaces that were typically painted with LBP. Test at least 3 components per room within the required rooms/areas (procedure for homes built in 1978 or built before 1978). Test additional components with deteriorated paint as appropriate. It is acceptable to test only 1 or 2 components in additional rooms once the minimum room/area requirement has been met.

Do not take XRF readings directly on top of loose, flaking paint, or on areas where the paint has worn thin. This may result in a reading that underestimates the amount of LBP that is present on the component. Note that while the top layer of paint may appear to be evenly distributed, the lower paint layers of the frequently walked on central areas of floors, stairs and door thresholds are likely to have worn off and contain less lead than the outer edge sections. Lead Assessors should therefore avoid testing the center sections of these types of components. When selecting exterior test locations it is important to test the sides of the house where the lead-based paint layers will be the thickest. Lead Assessors should keep in mind that the west and south facing sides of a home are likely to have paint layers worn off due to sun exposure and readings of exterior components on these sides may underestimate the lead content of the building exterior.

b. Housing built in 1978 or earlier

At a minimum, take readings in each of these 4 rooms/areas (3 interior areas and 1 exterior area):

- bedroom or sleeping area
- living room
- kitchen or bathroom

Within each room/area, test at least 3 components as applicable (deteriorated and/or friction/impact components have priority):

- 1 to 2 window system components (sash, sill, well, casing, etc.)
- 1 to 2 door system components (door, jamb, casing, threshold, etc.)

c. Take Additional Readings beyond the Minimum as Appropriate

Lead Assessors should take additional readings beyond the minimum number

required as appropriate. The following are examples of when Lead Assessors should consider testing beyond the minimum sampling strategy:

- The painting history of the house is irregular, deteriorated paint is present and the pattern of LBP application cannot easily be discerned
- A component reading is close to the LBP definition and additional readings in different locations on the component may result in establishing that the component as a whole is painted with layers of LBP
- The house is large and the child frequents rooms with deteriorated paint that are not included in the minimum procedures

d. Note All Deteriorated Components with Similar Painting History to be Addressed in the Property Owner Letter.

By conducting a thorough visual assessment, following the minimum sampling strategy and testing additional components beyond the minimum as necessary, Lead Assessors should be able to use their professional judgment to address additional deteriorated components with similar painting history in the letter to the property owner. For example, if there are three deteriorated window systems in a room that all appear to have the same painting history and the one window that is tested is confirmed as having LBP, all three windows should be listed in the property owner letter as requiring abatement.

e. Adapting the Paint Testing Procedures to Unusual Situations

It is important that the Lead Risk Assessment be conducted using a countywide standard for the sampling strategy. However, there may be situations where the property does not lend itself to following the procedures easily. Below are listed some examples of these situations and how to deal with them. Always provide an explanation on the Assessment Report if procedure deviations are necessary. Lead Assessors are encouraged to discuss unusual sampling situations with the EHC and EH Supervisor.

- Family lives in a sub-divided property so that there are fewer than 3 interior rooms to test – test all of the rooms/areas that are available to test and describe the family’s living arrangements on the Assessment Report (procedure for homes built in 1978 or earlier)
- Family lives in an apartment with interior corridors – test the exterior at the entry to the corridor and/or test window wells or exterior surfaces accessible from the window

- Most or all of the older windows at the property have been replaced with aluminum or vinyl windows – test the windowsill or casing if the older parts were not replaced, or choose other friction/impact surfaces accessible to the child to test such as door components, baseboards, or cabinets. Note on Lead Assessment Report and XRF print-out the locations of the aluminum/vinyl frame windows
- The property has paint that appears to be in intact condition with no obvious deterioration – test friction and impact surfaces. Note that even minor wear and tear on friction or impact surfaces such as a double hung window renders it in “fair” condition rather than “intact” and it may be a source of lead dust. Results from intact paint readings, while unlikely to identify the child’s lead exposure sources, will allow the LA to provide additional information to the family on potential lead hazards and promote primary prevention of lead poisoning

3.2 Clearance Test Procedure

3.2.1. Preparation for the Clearance Inspection

After the Contractor has notified the LPAT that the required lead hazard abatement activities have been completed, a clearance inspection must be performed to verify that the work has been completed and that no lead dust contamination is present. A clearance inspection will be performed by the Lead Assessor. .

The clearance inspection sampling strategy is adapted from both the EPA regulations (40 CFR Part 745 Lead; Identification of Dangerous Levels of Lead; Final Rule January 5, 2001, Section 745.227 (e) (8)) and the HUD Guidelines Chapter 15 (1995). The dust wipe sampling procedure is derived from the EPA regulations and is more stringent than the HUD Guidelines clearance dust wipe sampling procedure because the EPA requires that both window sills and window wells be tested (if present) in the room/areas selected for clearance testing. This clearance procedure includes sampling exterior horizontal surfaces in addition to window wells because the Title 17 exterior lead dust hazard definition includes exterior horizontal surfaces.

3.2.2 Visual Examination

Use the sampling map that was generated during the Initial Assessment and the as references during the visual examination and dust wipe sampling process. Record the visual examination information in the Clearance Test Report. Verify that abatement measures have been completed and that no visible dust or debris remains in the work

areas or adjacent to the work areas. If only part of the required work was completed, note which areas are complete and which are still pending on the Clearance Test Report. A property may require several visual examinations; however, clearance dust wipe sampling must not proceed until all interior and exterior work is completed. Otherwise areas that were previously determined to be free of lead contaminated dust may become re-contaminated if additional work is performed. Note that if work at the property is done in stages, it is acceptable to assess cleanliness and adequacy of containment by conducting preliminary dust wipe sampling but clearance dust wipe sampling should not occur unless all work has been completed.

The visual examination process varies depending on the types of lead abatement measures that were used:

- Component removal- Verify that all components identified in the abatement plan and property owner requirement letter were removed and replaced with new components
- Paint stabilization- Confirm that deteriorated paint has been stabilized and that new paint is adhering to the old paint and substrate. If new paint was applied without first preparing the old paint and substrate by de-glossing and wet sanding/scraping, the new paint will rapidly delaminate from the surface. Verify that exterior paint stabilization has been completed without leaving visible debris or paint chips on the soil, landscaping or other surfaces
- Complete paint removal- (heat gun, mechanical, or chemical removal). Paint removal measures such as chemical removal require a two-part visual examination, the first to determine that paint has been completely removed and the second to verify that the surfaces have been covered completely with new paint
- Visible dust and debris removal- Carefully examine surfaces within the work area to ensure that all visible dust and debris have been removed by thorough cleaning. Check behind doors, in corners and all horizontal surfaces. If only exterior work was performed ensure that not only exterior horizontal surfaces are free from dust and debris but that interior horizontal window and door surfaces immediately adjacent to the exterior are free from tracked in or blown in debris

3.2.2. Clearance Dust Sampling Strategies

The number of dust wipe samples for a clearance will vary depending on the number of rooms/areas where abatement work occurred. Note that carpeted surfaces should be tested as appropriate. The CDPH Title 17 regulatory levels for floor dust wipe

sample results are the same regardless of whether the surfaces are carpeted or un-carpeted.

Dust wipe collection procedures will also vary depending on the location and types of window systems in the house. If a window is not present in a room in which abatement occurred dust sample collection from windows is omitted for that room. Additionally, if a window system consists of vinyl or aluminum frames, then window well sampling is omitted. (A window well is part of a double hung window system). Newer window systems may lack a traditional window sill; however, horizontal inset surfaces adjacent to installed windows may be treated as window sills if there was potential for contamination of these surfaces during the work.

There are two sampling schemes for clearance dust testing. The first is for use when abatement was performed in distinct, scattered areas of the house. EPA terms this “containment between abated and unabated areas”. The second sampling scheme is for use when abatement work was performed throughout the house without separate containments. EPA terms this “no containment”. The main difference is that the “containment” version includes floor dust testing outside of each contained area to ensure that lead dust was not tracked out of the work area. If it is unclear whether separate containments were used during the work the default choice for the clearance sampling strategy should be the “no containment” scheme. It is important to document which of the following sampling schemes are used during clearance testing. Indicate the clearance sampling strategy on the Clearance Test Report in the visual assessment section.

a. Clearance Dust Sampling Procedure: “Containment between Abated and Unabated Areas”

Interior work- In each room where abatement work was performed take at least:

- 1 floor dust wipe sample
- 1 window sill sample (if window sill is present)
- 1 window well sample (if window well is present)
- 1 floor sample within 10 feet of the entrance of each room/area

Exterior work- If exterior abatement work was performed, including soil treatments, take at least:

- One (1) floor sample (exterior horizontal surface such as porch, patio, balcony,

steps or sidewalk, window ledge, etc.)

- One (1) window well sample in or adjacent to the work area. If the house does not have double-hung windows, then test an exterior horizontal window surface such as a window ledge (if present)

Note: sampling of interior window surfaces, interior floors beneath windows or entry doors may be necessary if inadequate containment was used during the exterior work (such as plastic not taped over the inside of windows prior to work or windows were opened during work).

b. Example of “Containment between Abated and Unabated Areas” Clearance Dust Sampling Scheme

The following is an example of a clearance dust wipe sampling scheme for a property that had abatement work performed in scattered areas of the house. The house where abatement was performed has 6 rooms (kitchen, bathroom, living room and 3 bedrooms). Interior abatement work was performed in the kitchen, living room and child’s bedroom. Each of these rooms was contained separately during the work. Clearance dust wipe samples would need to be collected in each of the three rooms (floor, window sill (if window is present), window well (if a double-hung window is present) and on the floor within 10 feet of the entry to each room). If each room has a double-hung window a total of 6 floor samples, three (3) window sill samples and three (3) window well samples will need to be collected.

Exterior abatement work was also performed on the building. Paint stabilization was performed on side A and bare soil was covered with landscaping materials on side B. Side A has a porch that is the main access to the house. One exterior floor dust wipe sample will need to be collected on the porch floor or adjacent horizontal surface. One window well dust wipe sample will also need to be collected from side A. Side B has one double-hung window and a patio. A window well sample and a patio floor sample will need to be collected. This property will require a minimum of 16 dust wipe samples, plus a field blank.

c. Clearance Dust Sampling Procedure: “No Containment”

This procedure is for use when abatement work was performed throughout a house. If the Lead Assessor cannot ascertain whether discrete containment was used for rooms that have lead hazard remediation performed consider this sampling procedure as the default type to use. Select 4 representative room/areas within the house to test. If there

are less than 4 room/areas, sample all rooms.

Interior work- In each room selected for testing take at least:

- 1 floor dust wipe sample
- 1 window sill sample (if window sill is present)
- 1 window well sample (if window well is present)

Exterior work- If exterior abatement work was performed, including soil treatments, take at least:

- One (1) floor sample (exterior horizontal surface such as porch, patio, balcony, steps or sidewalk, window ledge, etc.)
- One (1) window well sample in or adjacent to the work area. If the house does not have double-hung windows, then test an exterior horizontal window surface such as a window ledge (if present)

Note: sampling of interior window surfaces, interior floors beneath windows or door entries may be necessary if inadequate containment was used during the exterior work (such as plastic not taped over the inside of windows prior to work or windows were opened during work).

d. Example of “No Containment” Clearance Dust Sampling Scheme

The following is an example of a clearance dust wipe sampling scheme for a property that had abatement work performed throughout the house and on the exterior. The house where abatement was performed has 6 rooms (kitchen, bathroom, living room and 3 bedrooms). Interior abatement work was performed in each room of the house. Clearance dust wipe samples would need to be collected in 4 rooms chosen at random (floor, window sill (if window is present) and window well (if a double-hung window is present)). If each room has a double-hung window a total of 4 floor samples, 4 window sill samples and 4 window well samples will need to be collected.

Exterior abatement work was also performed on the building. Paint stabilization was performed on side A and bare soil was covered with landscaping materials on side B. Side A has a porch that is the main access to the house. One exterior floor dust wipe sample will need to be collected on the porch floor or adjacent horizontal surface. One window well dust wipe sample will also need to be collected from side A. Side B has one double-hung window and a patio. A window well sample and a patio floor sample will need to be collected. This property will require a minimum of 16 dust wipe samples, plus

a field blank.

e. Collect Clearance Dust Samples for Lab Analysis

1) Use American Society for Testing and Materials (ASTM) approved wipe media (sealed wipe packets) for dust wipe sampling (HUD/ASTM method designation E 1792).

Examples of wipe media brands that may be used include: Pace Wipe™ by Pace Environs, Inc., Palintest Dust Wipe, Aramsco Lead Wipe and Wash n Dri®. The list of ASTM-acceptable wipes changes frequently, so check with the laboratory regarding acceptable wipes. Check the moisture content of the wipe after opening the packet and discard wipes that have dried out.

2) Floors: use a one square foot template made of washable material such as plastic, or tape off one square foot. Do not walk on the area to be wiped. The template must be secured with tape on two opposing corners to prevent the template from moving during wiping. Tip: pre-made plastic folding 12” by 12” templates can be purchased from some NLLAP labs.

3) Windowsills and wells: measure the entire length and width of the sill or well to be wiped and record the dimensions on page 14 of the LPFF. Wiping the entire length and width of the sill or well ensures an area of sufficient sampling size for laboratory quantification.

4) Store wipe packets in a sealable plastic bag or covered container to minimize contamination of the exterior of the packets. Don a new, clean pair of powderless gloves, remove the wipe from the packet and open the wipe fully before sampling. Use a pair of new gloves for each dust wipe sample. Tip: plan ahead before each sample and have all dust wipe supplies ready (open wipe packet and have centrifuge tube ready) so that clean gloves do not touch anything but the wipe. Remove one glove before handling the tube.

5) Floors: wipe the entire sampling area from side to side in an overlapping “S” pattern (first pass). Fold the wipe in half, dirty side inward, and wipe up and down the length of the surface in an overlapping “S” pattern at 90 degrees from the first pass (second pass). If a sampling template is used, consider making a third pass of the edges and corners inside the template or ensure that the first and second pass wiping included the edges and corners of the sampling area. Tips: using a flat palm and grasping the wipe slightly between the fingers while wiping will help keep the wipe from “getting stuck”,

particularly on rough or carpeted surfaces. Wipe slowly on rough or carpeted surfaces so that the wipe does not tear.

6) Window sills and wells: wipe the entire length and width of the sill or well in one direction. Fold the wipe in half, dirty side inward, and then wipe the entire length and width of the sill or well in the opposite direction.

7) After thoroughly wiping the surface, fold the wipe in half, dirty side inward, and place the wipe in the centrifuge tube. (Title 17 and EPA regulations require the use of rigid containers for dust wipe samples).

8) Remove gloves and discard them in a trash bag or container.

9) Wipe off the template, ruler or measuring tape using baby wipes or paper towels and water after each dust wipe sample is taken.

10) Label centrifuge tubes with the sample number, property address and the date that the samples were collected.

11) Send the samples to an EPA recognized laboratory. An opened wipe should be sent as a blank. Tip: prepare the blank at the same time as the field samples are collected.

3.2.3. Evaluation of Clearance Dust Sample Results

a. Passed Clearance

Once dust wipe sample results are obtained from the lab, and all samples are below regulatory levels the property address closure process may begin. The date that the Lead Assessor evaluates these lab results and concludes that all samples were below regulatory levels is the date the property passed clearance. The lead paint abatement process is complete once the property has passed the clearance inspection and the EH Manager, LPAT, and family have been notified that the property has passed clearance. The LPAT should be notified verbally as soon as possible and the verbal notification should be followed up with a letter detailing the clearance results and instructions for maintaining a lead-safe property. The notification letter attachments should include copies of the clearance pages of the Clearance Test Report and lab results.

After the Clearance Test, case will be move on to closure step.

b. Failed Clearance: Next Steps

If any of the samples were greater than or equal to the applicable regulatory standard, then the property has failed clearance. If the property fails the clearance sampling step, then the LPAT must be notified . Verbal notification should occur as soon as possible so that the LPAT can address any remediation or cleaning that is still needed. A follow-up letter needs to be sent within 30 days of the failed clearance inspection confirming that lead hazards still exist at the property and remediation is still needed.

Chapter 4. Contractor Procurement

The purpose of this chapter is to provide guidance on how the bidding requirement is to be implemented while ensuring compliance with the uniform bidding process and contractor relations. Regulations for lead abatement work and responsibilities of the contractors will also be listed.

4.1. Lead Abatement Regulation

General contractors are required to follow the guidelines from the U.S. Department of Housing and Urban Development (HUD). HUD's "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition)" specifically state the methods for lead abatement in chapters 12 and 13. These sections include the following types of abatement methods:

- Building component replacement
- Enclosure
- Paint removal
- Encapsulation

The following are links to the HUD Guidance for Chapter 12 and 13 respectively:

https://portal.hud.gov/hudportal/documents/huddoc?id=ch12_abatement_121212.pdf

<https://portal.hud.gov/hudportal/documents/huddoc?id=lbph-15.pdf>

The LPAT must ensure the procured CDPH Certified Lead Abatement Contractor adheres to [Title 8, CCR § 1532.1](#), Construction Safety Orders, Lead. This section provides explicit directions that the lead abatement contractor needs to adhere to.

4.2. Lead Hazard Control Criteria and Options

Once actionable lead has been found on surfaces or in dust at a property, the LPAT will develop a plan for lead hazard control.

Under the Plan, all replaced building components should be at least equal in quality to the lead painted components they replace. The judgement on what constitutes “equal to” should be made by the LPAT, who will design the hazard control in collaboration with owners and occupants. If an owner decides to replace a building component with a higher cost equivalent item, the additional cost shall be paid by the property owner.

The plan contemplates that the first prioritization of any lead hazard control plan is replacement of lead painted windows and doors, which will yield largest health benefit in the shortest time period.

If the existing substrate is incapable of supporting an enclosure system, it should be either repaired to support an enclosure, or the component should be replaced.

Walls: For lead painted interior walls and ceilings, (new plaster is an acceptable enclosure method, as long as the new lathe is physically attached to the substrate).

Floors & Stairs: Enclosure with new subflooring and finish goods (paint stabilization should not be permitted on lead-painted floors and lead-painted stairs because of the likelihood of deterioration due to traffic and on-going impact).

Ceilings: Paint stabilization or enclosure with drywall or equivalent.

Window trim: Replacement (or off-site stripping and repainting for ornate, unique items).

Window troughs: Replacement or enclosure.

Other window parts: Replacement (or off-site stripping and repainting for ornate, unique items).

Window or Door Lintels: Replacement (or, if load-bearing; enclosure).

Door Replacement: (or off-site stripping and repainting for ornate, unique items).

Door Frames: Replacement (or enclosure if load-bearing).

Interior Trim: Replacement (or off-site stripping and repainting for ornate, unique items) or Paint stabilization.

Cabinets/Shelving: Paint stabilization or replacement (or off-site stripping and repainting for ornate, unique items).

Radiators/Pipes: Paint stabilization or replacement (or off-site stripping and repainting for ornate, unique items).

Stairs: Enclosure or replacement

Dust Actionable Lead Dust: Removal to clearance standards.

4.3. Requirement of General Contractor

GC must be a CDPH-certified Lead Supervisor and/or Worker.

Under Title 17, CCR § 35001-35050 and § 36000-36100,

A Certified Supervisor:

- May perform Lead abatement activities
- May supervise individuals performing lead abatement activities
- May prepare lead abatement plans
- May not perform lead hazard evaluations, including clearance inspections.

A Certified Worker:

- May perform lead abatement activities
- May not prepare lead abatement plans
- May not perform lead hazard evaluations, including clearance inspections.

4.4. Pollution Occurrence Insurance

Pollution and Occurrence Insurance is required for lead abatement contractors. LPAT must submit copies of the required insurance with contracts. LPAT and contractor must include a copy of the Lead Certification from CDPH with bid packages.

4.5. Prompt Payment Requirement

LPAT shall compensate lead assessors, contractors, and suppliers for services rendered within thirty (30) days of invoice receipt and satisfactory LPAT final inspections.

Appendices (Under Development)