

## LEAD HAZARD EVALUATION REPORT

### Section 1-Date of Lead Hazard Evaluation Inspection date

### Section 2-Type of Lead Hazard Evaluation (Check one box only)

Lead inspection     Risk assessment     Clearance inspection     Other (Limited Inspection)

### Section 3-Structure Where Lead Hazard Evaluation Was Conducted

Address (number, street, apartment (if applicable)) 2049 Montera Drive	City Hacienda Heights	County	ZIP code 91745
Construction date (year) of structure 19??	Type of structure (check one box only) <input type="checkbox"/> Multi-unit building <input type="checkbox"/> School or Daycare <input type="checkbox"/> Single Family Dwelling <input type="checkbox"/> Other (specify)	Children Living in Structure? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know	

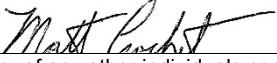
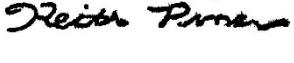
### Section 4-Owner of Structure (If business/agency, list contact person)

Name Contact Name	Telephone number Contact Number		
Address [number, street, apartment (if applicable)] «PROJECT_INFOADDRESS»	City «PROJECT_INFOCITY»	State CA	ZIP code «PROJECT_ZIP»

### Section 5-Results of Lead Hazard Evaluation (Check all that apply)

No lead-based paint detected     Intact Lead-based paint detected     Deteriorated Lead-based paint detected  
 No lead hazards detected     Lead Contaminated Dust Found     Lead Contaminated Soil Found     Other (specify)

### Section 6-Individual Conducting Lead Hazard Evaluation

Name Inspector Names	Telephone number 714-894-5700		
Address (number, street, apartment (if applicable)) 16531 Bolsa Chica, Suite 205	City Huntington Beach	State CA	ZIP code 92649
CDPH certification number 12 14441 25548	Signature 		Date Inspection date

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

### Section 7-Attachments

- A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
- B. Each testing method, device, and sampling procedure used;
- C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

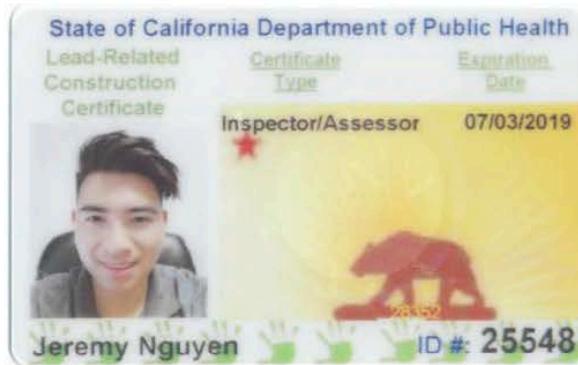
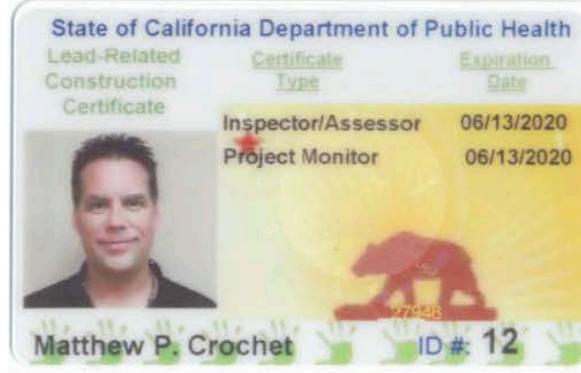
*First copy and attachments retained by inspector*

*Second copy and attachments retained by owner*

*Third copy only (no attachments) mailed to:*

California Department of Public Health  
Childhood Lead Poisoning Prevention Branch Reports  
850 Maria Bay Parkway, Building P, Third Floor  
Richmond, CA 94804-6403 Fax (510) 620-5656

## Lead Inspector/Risk Assessor/Project Designer Certifications





## CERTIFICATE OF LIABILITY INSURANCE

BARR&amp;CL-01

PHILLIPS

DATE (MM/DD/YYYY)  
3/2/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERNS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0E67768

Legends Environmental Ins. Services  
130 Vantis  
Suite 250  
Aliso Viejo, CA 92656

CONTACT NAME:	Elizabeth Leach
PHONE (A/C, No, Ext):	(949) 297-5537 52011
FAX (A/C, No):	(949) 297-5960
E-MAIL ADDRESS:	Elizabeth.Leach@ioausa.com
INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westchester Surplus Lines Insurance Company	10172
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

## INSURED

Barr & Clark  
16531 Bolsa Chica Street, Suite 205  
Huntington Beach, CA 92649

## COVERAGES

## CERTIFICATE NUMBER:

## REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	X COMMERCIAL GENERAL LIABILITY  CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  X Contractors Poll.  _____		X	G46606954001	03/09/2017	03/09/2019	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (EA occurrence) \$ 50,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Deductible \$ 2,500
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:						COMBINED SINGLE LIMIT (ea accident) \$ _____ BODILY INJURY (Per person) \$ _____ BODILY INJURY (Per accident) \$ _____ PROPERTY DAMAGE (Per accident) \$ _____ \$ _____
	AUTOMOBILE LIABILITY  ANY AUTO OWNED AUTOS ONLY Hired AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY						EACH OCCURRENCE \$ _____ AGGREGATE \$ _____ \$ _____
	UMBRELLA LIAB EXCESS LIAB DED RETENTION \$						PER STATUTE E.L. EACH ACCIDENT \$ _____ E.L. DISEASE - EA EMPLOYEE \$ _____ E.L. DISEASE - POLICY LIMIT \$ _____
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				
A	*Professional Liab.			G46606954001	03/09/2017	03/09/2019	Each Claim 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

\*Professional Liability is written on a Claims Made basis.

The City of Hemet is Additional Insured for General Liability with respect to work performed for them by the Named Insured as required by written contract, per Blanket Additional Insured endorsement ENV-3100 (08-04) & ENV-3225 (10-08). Liability Coverage is Primary and Non-Contributory, per endorsement ENV-3101 (08-04) & ENV-3226 (10-08).

## CERTIFICATE HOLDER

NOTE: This is a copy of our general liability insurance. Your city or company's specific insurance is on file.

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

## AUTHORIZED REPRESENTATIVE



CI CW A02 10 11

## CERTIFICATE OF INSURANCE

This certificate is issued for informational purposes only. It certifies that the policies listed in this document have been issued to the Named Insured. It does not grant any rights to any party nor can it be used, in any way, to modify coverage provided by such policies. Alteration of this certificate does not change the terms, exclusions or conditions of such policies. Coverage is subject to the provisions of the policies, including any exclusions or conditions, regardless of the provisions of any other contract, such as between the certificate holder and the Named Insured. The limits shown below are the limits provided at the policy inception. Subsequent paid claims may reduce these limits.

<b>Certificate Holder:</b>  This is a copy of our general auto insurance. Your company or city's specific insurance is on file.	<b>Named Insured:</b> BARR & CLARK, INC. 16531 BOLSA CHICA ST STE 205 HUNTINGTON BEACH CA 92649-3595
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Automobile Liability			
<b>Insurer Name:</b> Allstate Insurance Company			
<b>Policy Number:</b> 648761551			
<input type="checkbox"/> 1 -- Any Auto	<input type="checkbox"/> 2 - Owned Autos Only	<input type="checkbox"/> 3 - Owned Priv. Pass. Autos Only	
<input type="checkbox"/> 4 -- Owned Autos Other Than Priv. Pass. Autos Only	<input type="checkbox"/> 5 - Owned Autos Subject to No Fault	<input type="checkbox"/> 6 - Owned Autos Subject to a Compulsory UM Law	
<input checked="" type="checkbox"/> 7 -- Specifically Described Autos	<input type="checkbox"/> X 8 - Hired Autos Only	<input type="checkbox"/> X 9 - Nonowned Autos Only	
<b>Policy Effective Date :</b>		<b>Policy Expiration Date:</b>	
<b>Limits of Insurance:</b>	\$1,000,000	Combined Single Limit (each accident)	
	BI Per Person	BI Per Accident	PD Per Accident
<b>Description of Operations/Locations/Vehicles/Endorsements/Special Provisions</b>			
<b>Interested Party Type:</b> Additional Insured - All Other			
THIS CERTIFICATE DOES NOT GRANT ANY COVERAGE OR RIGHTS TO THE CERTIFICATE HOLDER.			
IF THIS CERTIFICATE INDICATES THAT THE CERTIFICATE HOLDER IS AN ADDITIONAL INSURED, THE POLICY(IES) MUST EITHER BE ENDORSED OR CONTAIN SPECIFIC LANGUAGE PROVIDING THE CERTIFICATE HOLDER WITH ADDITIONAL INSURED STATUS. THE CERTIFICATE HOLDER IS AN ADDITIONAL INSURED ONLY TO THE EXTENT INDICATED IN SUCH POLICY LANGUAGE OR ENDORSEMENT.			

<b>Producer:</b> SMART MONEY SOL INC	
<b>Authorized Representative:</b>	Date:



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BU114R-3

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Allstate Insurance Company

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Insured Full Copy



P.O. BOX 8192, PLEASANTON, CA 94588

**CERTIFICATE OF WORKERS' COMPENSATION INSURANCE**

GROUP:  
POLICY NUMBER: 1917813  
CERTIFICATE ID: 243

This is a copy of our general worker's compensation insurance. Your company or city's specific insurance is on file.

This is to certify that we have issued a valid Workers' Compensation Insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon 30 days advance written notice to the employer.

We will also give you 30 days advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policy listed herein. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate of insurance may be issued or to which it may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions, of such policy.

A handwritten signature in black ink, appearing to read "Karen R. Va Lant".

Authorized Representative

A handwritten signature in black ink, appearing to read "Karen Stein".

President and CEO

**EMPLOYER'S LIABILITY LIMIT INCLUDING DEFENSE COSTS: \$1,000,000 PER OCCURRENCE.**

**ENDORSEMENT #0015 ENTITLED ADDITIONAL INSURED EMPLOYER EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY. NAME OF ADDITIONAL INSURED:**

**ENDORSEMENT #2065 ENTITLED CERTIFICATE HOLDERS' NOTICE EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY.**

EMPLOYER

BARR & CLARK, INC  
16531 BOLSA CHICA ST STE 205  
HUNTINGTON BEACH CA 92649

SP

[P14,SP]

# APPENDIX

# C

*PERFORMANCE CHARACTERISTIC SHEET (PCS)*  
**LEAD SPEAK – A BRIEF GLOSSARY & KEY UNITS OF MEASUREMENT**  
**ADDITIONAL LEAD & LEAD SAFETY RESOURCE DATA**

## Performance Characteristic Sheet

**EFFECTIVE DATE:** December 1, 2006

**EDITION NO.: 5**

**MANUFACTURER AND MODEL:**

Make: **Radiation Monitoring Devices**  
 Model: **LPA-1**  
 Source:  **$^{57}\text{Co}$**   
 Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above **for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.**

### FIELD OPERATION GUIDANCE

**OPERATING PARAMETERS:**

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

**XRF CALIBRATION CHECK LIMITS:**

0.7 to 1.3 mg/cm<sup>2</sup> (inclusive)

**SUBSTRATE CORRECTION:**

For XRF results below 4.0 mg/cm<sup>2</sup>, substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.  
 None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings  
 Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

**THRESHOLDS:**

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

## BACKGROUND INFORMATION

### EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

### OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

### XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

### SUBSTRATE CORRECTION VALUE COMPUTATION :

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm<sup>2</sup> for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm<sup>2</sup> at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm<sup>2</sup>. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm<sup>2</sup> NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1^{\text{st}} + 2^{\text{nd}} + 3^{\text{rd}} + 4^{\text{th}} + 5^{\text{th}} + 6^{\text{th}} \text{ Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

### EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

#### **BIAS AND PRECISION:**

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm<sup>2</sup> lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm<sup>2</sup> lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm<sup>2</sup> and none of the quick mode readings were less than 1.0 mg/cm<sup>2</sup>. The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm <sup>2</sup> )	PRECISION* (mg/cm <sup>2</sup> )
0.0 mg/cm <sup>2</sup>	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.1 0.3 0.1 0.0	0.1 0.1 0.1 0.1 0.1 0.1
0.5 mg/cm <sup>2</sup>	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.0 0.2 0.0 0.0	0.2 0.2 0.2 0.2 0.2 0.2
1.0 mg/cm <sup>2</sup>	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.0 0.2 0.0 0.0	0.3 0.3 0.3 0.3 0.3 0.3
2.0 mg/cm <sup>2</sup>	Brick Concrete Drywall Metal Plaster Wood	-0.1 -0.1 -0.1 0.1 -0.1 -0.1	0.4 0.4 0.4 0.4 0.4 0.4

\*Precision at 1 standard deviation.

#### CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristic Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

#### DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, [www.hud.gov/offices/lead](http://www.hud.gov/offices/lead).

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

**Abatement:** A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. (For full EPA definition, see 40 CFR 745.223).

**Bare soil:** Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

**Chewable surface:** An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an "accessible surface" as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

**Deteriorated paint:** Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or otherwise becoming separated from the substrate.

**Drip line/foundation area:** The area within 3 feet out from the building wall and surrounding the perimeter of a building.

**Dust-lead hazard:** Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these *Guidelines*, these are 40 µg/ft<sup>2</sup> on floors and 250 µg/ft<sup>2</sup> on interior windowsills. Also called lead-contaminated dust.

**Friction surface:** Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

**Garden area:** An area where plants are cultivated for human consumption or for decorative purposes.

**Impact surface:** An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

**Interim controls:** A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

**Lead-based paint:** Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0\* mg/cm<sup>2</sup> as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)<sup>\*</sup>NOTE: LBP in LA County is defined as any coating that contains lead equal to or greater than 0.7 mg/cm<sup>2</sup> via XRF or 0.06 % by weight (600mg/g, 600ppm, 600mg/kg) as measured by lab analysis.  
**Lead-based paint hazard:** A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, **paint-lead hazards, dust-lead hazards, and soil-lead hazards**.

**Paint-lead hazard:** Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

**Play area:** An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

**Soil-lead hazard:** Bare soil on residential property that contains lead in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for soil-lead hazards, published at 40 CFR 745.65(c), as of the publication of this edition of these *Guidelines*, is 400 µg/g in play areas and 1,200 µg/g in the rest of the yard. Also called lead-contaminated soil.

## Key Units of Measurement

**Gram (g or gm):** A unit of mass in the metric system. A nickel weighs about 1 gram, as does a 1 cube of water 1 centimeter on each side. A gram is equal to about 35/1000 (thirty-five thousandths of an ounce). Another way to think of this is that about 28.4 grams equal 1 ounce.

**µg (microgram):** A microgram is 1/1000<sup>th</sup> of a milligram. To put this into perspective, a penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

**µg/dL (microgram per deciliter):** used to measure the level of lead in children's and worker's blood to establish whether intervention is needed. A deciliter is a little less than a half a cup.

**µg/ft<sup>2</sup> (micrograms per square feet):** the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in µg/ft<sup>2</sup>.

**mg/cm<sup>2</sup> (milligrams per square centimeter):** used to report levels of lead in paint thru XRF testing.

**ppm (parts per million):** Typically used to express the concentrations of lead in soil. Can also be used to express the amount of lead in a surface coating on a mass concentration basis. This measurement can also be shown as: µg/g, mg/kg or mg/l.

**ppb (parts per billion):** Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as: µg/L (micrograms per liter).

## EPA/HUD Lead-Based Paint and Lead-Based Paint Hazard Standards

### Lead-Based Paint (may be determined in either of two ways)

- ◆ Surface concentration (mass of lead per area) 1.0 µg/cm<sup>2</sup>\*
- ◆ Bulk concentration (mass of lead per volume) 0.5%, 5000 µg/g, or 5000 ppm\*

\*Note: In LA County LBP - surface concentration = 0.7 mg/cm<sup>2</sup> and bulk concentration = 0.06%, 600 mg/g, or 600 ppm

### Dust-thresholds for Lead-Contamination

- ◆ Floors 40 µg/ft<sup>2</sup>
- ◆ Interior Window Sills 250 µg/ft<sup>2</sup>
- ◆ Window Troughs (clearance examination only) 400 µg/ft<sup>2</sup>

### Soil-thresholds for Lead Contamination

- ◆ Play areas used by children under age 6 400 µg/g, or 400 ppm
- ◆ Other areas 1200 µg/g, or 1200 ppm

## **Resources For Additional Information On Lead-Based Paint And Lead-Based Paint Hazards:**

**National Lead information Center & Clearinghouse:**

1-800-424 LEAD

[www.epa.gov/lead/pubs/nlic.htm](http://www.epa.gov/lead/pubs/nlic.htm)

**Centers for Disease Control and Prevention Lead Program:**

[www.cdc.gov/lead](http://www.cdc.gov/lead)

Toll-free CDC Contact Center: 800-CDC-INFO; TTY 888-232-6348

**Consumer Product Safety Commission**

[www.cpsc.gov](http://www.cpsc.gov)

Toll-free consumer hotline: 1-800-638-2772; TTY 301-595-7054

**Environmental Protection Agency Lead Program:**

[www.epa.gov/lead](http://www.epa.gov/lead)

202-566-0500

**HUD Office of Healthy Homes and Lead Hazard Control:**

[www.hud.gov/offices/lead](http://www.hud.gov/offices/lead)

202-402-7698

**Anystate Department of Health and Environment, Lead Poisoning Prevention Program**

<http://depthealth.state.an/lead/>

Hearing- or speech-challenged individuals may access the federal agency numbers above through TTY by calling the toll-free Federal Relay Service at 800-877-8339; see also <http://www.federalrelay.us/tty>.

# APPENDIX

## D

***DUST WIPE & SOIL SAMPLE LABORATORY MANIFESTS AND RESULTS***