

What's a LIRA?

Lead Inspection and Risk
Assessment Best Practices

Michelle Seldon, Program Administrator



**VIRGINIA DEPARTMENT OF HOUSING
AND COMMUNITY DEVELOPMENT**
Partners for Better Communities



OH SNAP!!! What's a LIRA???

- Greetings!
- Questions – in chat, call, or email. My contact information is below.



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Current Grant Cycle 2025 - 2029



Began
March 2025

Our goal is
to serve at least
192 households in
the State of
Virginia

The City Danville
is now under the
DHCD grant!



City of Roanoke
is excluded
from the DHCD
grant!!!



Humble Beginnings...

The very 1st home that the LHR program remediated! This was completed in 2022 by Southside Outreach Group.



During the 2020 grant cycle, the program remediated over 130 homes!!!

Walmart Chicken Nuggets Contaminated with Lead

New Study Finds Severe Pediatric Lead Poisoning in US a Substantial Health Concern

Evaluating Bathtubs for Lead Hazards

What Home Lead Test Kits Can Tell You and What They Can't - Consumer Reports

Lead in children's 'fast fashion'

Lead Toxicity From Imported Jewelry

Arsenic, lead in baby formula products

Florida Testing Candy for Arsenic

Lead in Spices – A Hidden Risk

Lead in Water: Strong Association Between Lead Pipes and Elevated Blood Lead Levels?

Lead and Cadmium in Canned Pears Imported from China

Lead in Toys: What Every Parent Needs To Know This Holiday Season



California AG Warns Baby Food Companies About Compliance

Lead in Paint: We Are Concerned About the EPA-Lowe's Settlement

Lead Exposure in Children: What Special Educator Need to Know

Diaper Paste Testing - Shocking, yet not surprising

What's a LIRA???

LIRA is an acronym for Lead-Based Paint Inspection and Risk Assessment Report. A **LIRA** is a comprehensive report. It is an evaluation of a property to identify and manage potential lead hazards.



Assess. Manage. Consult.

Lead-Based Paint Inspection and Risk Assessment Report



Prepared For:

Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

Issue Date: March 16, 2026

F&R Project Number: [REDACTED]

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FandR.com

A Minority-Owned Business

3015 Dumbarton Road
Richmond, VA 23228

What's in a LIRA???



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The **LIRA** includes the purpose of the inspection, lead based paint testing and determination, site description and sketch, scope of services, pictures, the inspection and how the results were determined.

It also includes the **risk assessment** and methodology.

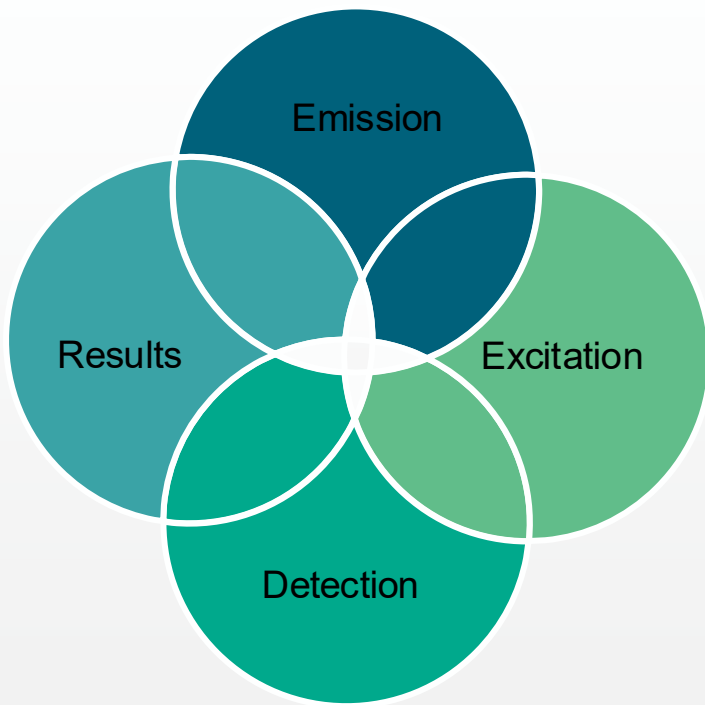
The risk assessment encompasses paint film evaluation, visual review of surfaces and bare soil, occupant questionnaire, condition of building, limited dust wipe sampling and analysis for lead, limited sampling and analysis of bare soil areas for lead, limited water and analysis for lead, and the work plan, which is included as a separate document. and much, much more.



Testing for lead-based paint is done using a handheld **XRF analyzer**. **XRF** stands for **x-ray fluorescence lead paint analyzer**. An **XRF analyzer** is portable, versatile, fast, and accurate.



The XRF analyzer works through 4 steps:



Emission

The device emits primary x-rays towards the sample

Excitation

Causes interaction with the atoms, which therefore causes fluorescence

Detection

Detects measurements of energy and intensity of emitted x-rays

Results

Processes the data and displays elemental composition almost immediately without damaging surfaces

File Home Insert Page Layout Formulas Data Review View Automate Developer Help

Clipboard Font Alignment Number Styles Cells Editing Sensitivity Add-ins Copilot

K192

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Viken Detection																		
2	Pb200i																		
3	XRF Lead Paint Analyzer																		
4	1504																		
5	Pb200i-5.3.1																		
6																			
7	Reading	Concentration	Result	Components	Side	Substrate	Color	Condition	Room	Floor									
8	1	0.9 mg/cm2	Negative	Calibration															
9	2	1 mg/cm2	Positive	Calibration															
10	3	0.9 mg/cm2	Negative	Calibration															
11	4	0.2 mg/cm2	Negative	Wall	A	Plaster	Tan	Intact	Living Room	First									
12	5	0.1 mg/cm2	Negative	Wall	B	Plaster	Tan	Intact	Living Room	First									
13	6	0.2 mg/cm2	Negative	Wall	C	Plaster	Tan	Intact	Living Room	First									
14	7	0.3 mg/cm2	Negative	Wall	D	Plaster	Tan	Intact	Living Room	First									
15	8	0.2 mg/cm2	Negative	Ceiling	C	Plaster	White	Intact	Living Room	First									
16	9	4.7 mg/cm2	Positive	Baseboard Molding	C	Wood	White	Deteriorated	Living Room	First									
17	10	4.3 mg/cm2	Positive	Door	A	Wood	White	Deteriorated	Living Room	First									
18	11	4.9 mg/cm2	Positive	Door Casing	A	Wood	White	Deteriorated	Living Room	First									
19	12	4.1 mg/cm2	Positive	Door Casing	C	Wood	White	Deteriorated	Living Room	First									
20	13	9.5 mg/cm2	Positive	Window 1 Sill	A	Wood	White	Deteriorated	Living Room	First									
21	14	3 mg/cm2	Positive	Window 1 Sash	A	Wood	White	Deteriorated	Living Room	First									
22	15	3.1 mg/cm2	Positive	Window 1 Casing	A	Wood	White	Deteriorated	Living Room	First									
23	16	5.8 mg/cm2	Positive	Window 2 Sill	A	Wood	White	Deteriorated	Living Room	First									
24	17	3.1 mg/cm2	Positive	Window 2 Sash	A	Wood	White	Deteriorated	Living Room	First									
25	18	3.1 mg/cm2	Positive	Window 2 Casing	A	Wood	White	Deteriorated	Living Room	First									

*****Results transferred from XRF analyzer to Excel spreadsheet**

readings Sheet1 Sheet2 +

Ready Accessibility: Investigate

Results transferred from EXCEL spreadsheet to LIRA from XRF analyzer

This examples includes a total of two hundred eighty-six XRF readings on the dwelling's interior and exterior. One hundred sixty-two of the readings collected from painted building materials tested at the subject site were positive for LBP. The readings that tested positive for lead are listed on the table to the right. This information is also used to create a scope of work or work plan.



Reading Number	Component	Substrate	Color	Side	Room	Floor	Condition
15	Window 1 Casing	Wood	White	A	Living Room	First	Deteriorated
16	Window 2 Sill	Wood	White	A	Living Room	First	Deteriorated
17	Window 2 Sash	Wood	White	A	Living Room	First	Deteriorated
18	Window 2 Casing	Wood	White	A	Living Room	First	Deteriorated
19	Window 3 Sill	Wood	White	B	Living Room	First	Deteriorated
20	Window 3 Sash	Wood	White	B	Living Room	First	Deteriorated
21	Window 3 Casing	Wood	White	B	Living Room	First	Deteriorated
22	Window 12 Sill	Wood	White	D	Living Room	First	Deteriorated
23	Window 12 Sash	Wood	White	D	Living Room	First	Deteriorated
24	Window 12 Casing	Wood	White	D	Living Room	First	Deteriorated
36	Baseboard Molding	Wood	White	B	Dining Room	First	Deteriorated
37	Cased Opening	Wood	White	A	Dining Room	First	Deteriorated
38	Door Casing	Wood	White	B/C Corner	Dining Room	First	Deteriorated
39	Window 9 Sill	Wood	White	D	Dining Room	First	Deteriorated
40	Window 9 Sash	Wood	White	D	Dining Room	First	Deteriorated
41	Window 9 Casing	Wood	White	D	Dining Room	First	Deteriorated
42	Window 10 Sill	Wood	White	D	Dining Room	First	Deteriorated
43	Window 10 Sash	Wood	White	D	Dining Room	First	Deteriorated



Dust Wipe Sampling

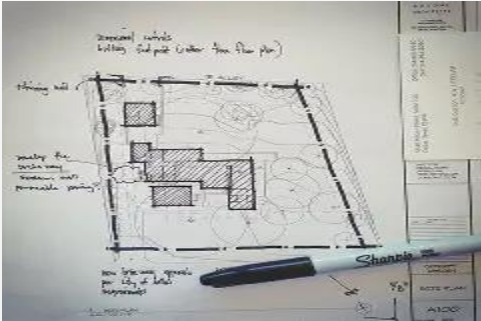
Soil Sampling

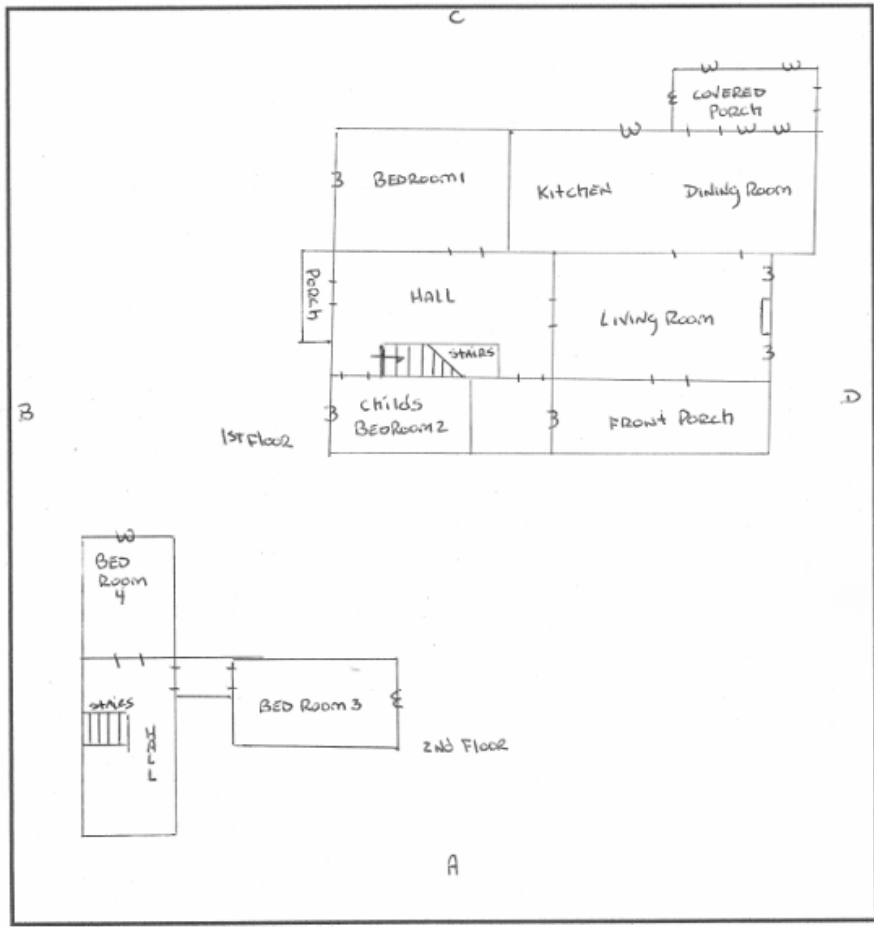


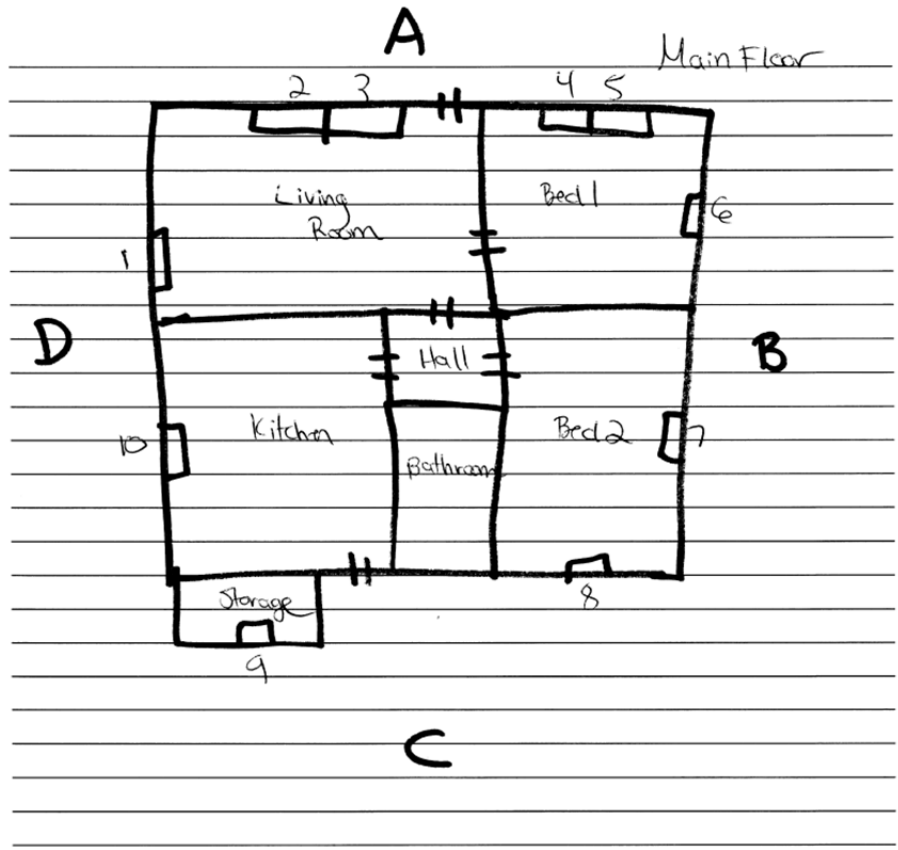
Potable Water Testing

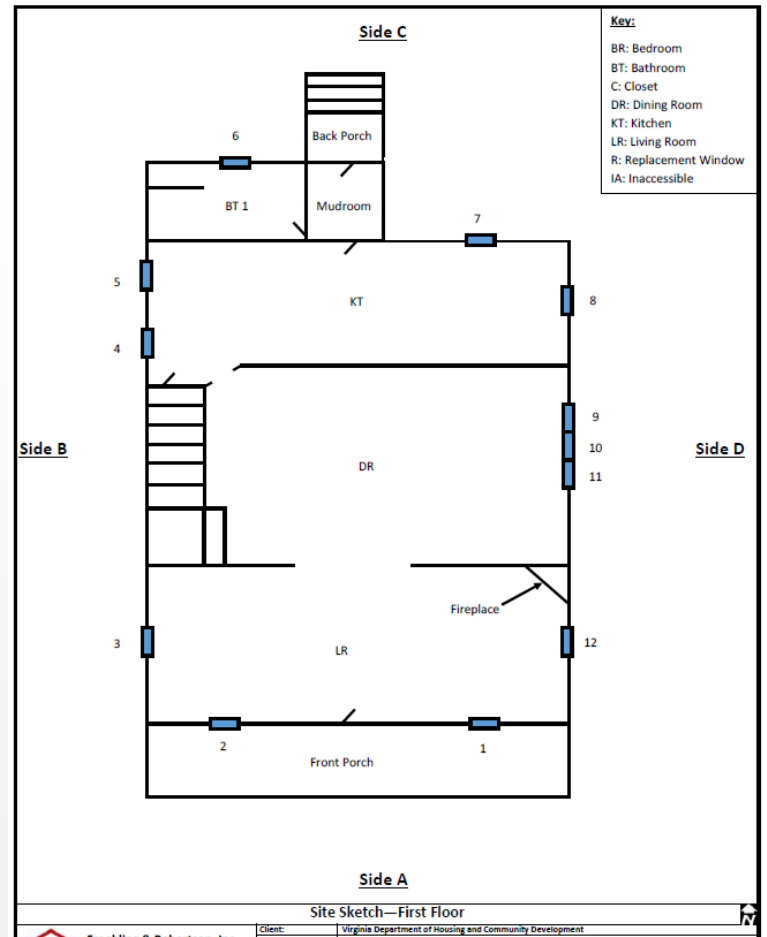
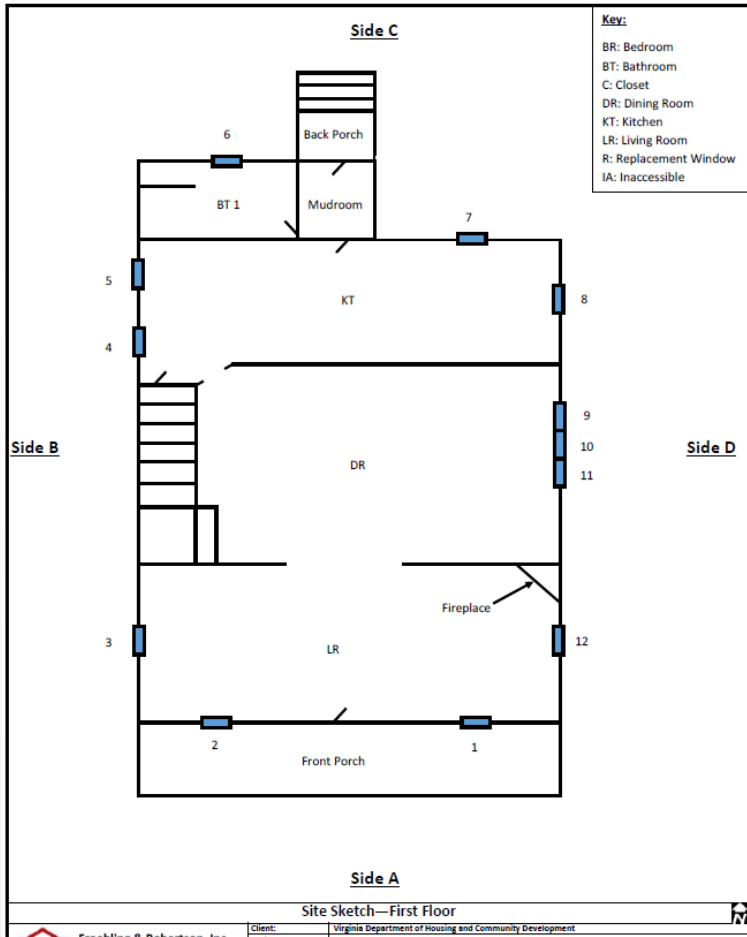


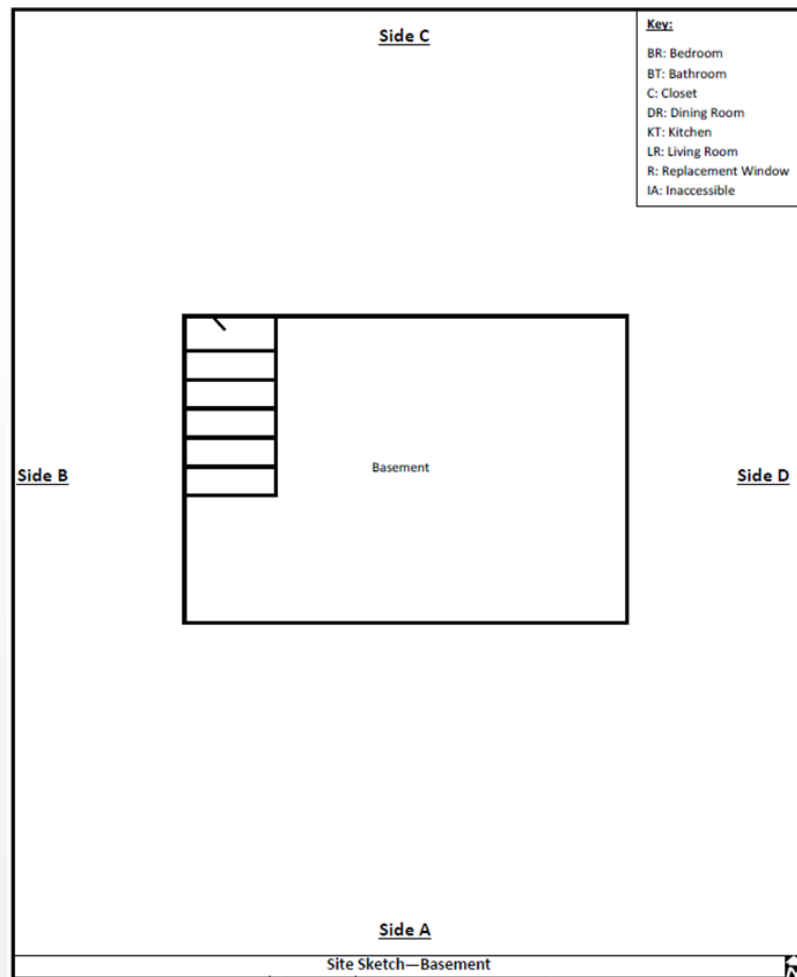
Let's compare a computer-generated sketch vs. a hand-drawn sketch











Scope of work (work plan)

A formal document that defines the specific tasks, deliverables, timelines, responsibilities, and boundaries required to complete a project.

Easy-to-read report so that owner/occupant can understand the work to be done to the residence. It includes the address of the property, a brief synopsis of the type of remediation to be done, location and component of work to be done, and the lead hazard control description.

LEAD HAZARD CONTROL WORK PLAN

[REDACTED]
Norfolk, VA 23508

Due to the nature and extent of the lead hazard control work, F&R recommends that the house be vacated during the remediation. If work cannot commence immediately, interim controls measures such as a general cleaning by wet wiping and HEPA vacuum should be performed first.

For door casings, doors, or other components that open between rooms, both sides of the component shall be subjected to the interim control. For example, if stabilization of a door in a bedroom which opens to a hallway is specified, the hallway side of the door shall also be stabilized. Focus for stabilization shall be on deterioration areas; however, the entire component shall be treated.

LOCATION	BUILDING COMPONENT	LEAD HAZARD CONTROL DESCRIPTION	CONTRACTOR COST ESTIMATE
EXTERIOR			
Exterior	Street Facing Windows	For the five (5) original street facing windows (Window 1, 2, 13, 14, and 15):	
		<p>Replace: Remove and dispose of original windows. Replace with wooden replacement windows (or equivalent upon approval of the program) matching size, style and dimension, including simulated divided lights. Apply primer and top-coat to any new unpainted wood.</p> <p align="center">And</p> <p>Stabilize: Repair substrate where necessary, remove loose paint, prepare surface, and apply primer and top-coats in accordance with HUD Chapter 11 on the original exterior and interior window components (casings, sills, etc.) where chipping/peeling is present, following acceptable methods</p>	
Exterior	Non-Street Facing Windows	For the sixteen (16) original non-street facing windows (Windows 3, 4, 5, 7, 8, 9, 10, 11, 12, 16, 17, 18, 19, 20, 22, and 23):	

Best practices for LIRA's

REMEMBER...



A lead inspection identifies where lead-based paint is present; a risk assessment evaluates hazards and recommends control actions.

Follow Accredited Protocols. Use HUD guidelines for visual assessment, sampling, and reporting.

Sampling methods consist of XRF analyzer, paint chips, and dust wipes.

Onsite data collection consists of visual assessment, dust sampling, soil sampling, and water testing.

Best Practices for LIRA's (continued)

The inspection only confirms the presence or absence of lead-based paint.

The risk assessment report must include findings, hazard levels, and recommended actions; include maps, sample locations, test results, and compliance with regulations.

Only certified lead inspectors or risk assessors may perform these activities. Also, Clearance Examiners, Lead Abatement Project Supervisors, and Contractors are required to be licensed in Virginia.

LHR Guidelines

- Home built before 1978
- Must meet HUD income guidelines
- At least one child in home must be less than 6 years of age residing or visiting or a pregnant woman
- Landlord with vacant property can also qualify if home will be rented to tenant that meets program guidelines

For more information, visit

www.dhcd.virginia.gov/lhr

To watch our lead video featuring our own Susan Hill, please visit

youtube.com/watch?v=GPQ

WVFatCtM

LHR Program Cost

1

FREE AND VOLUNTARY!!!

2

FREE AND VOLUNTARY!!!

3

FREE AND VOLUNTARY!!!

Get the word
out about the
LHR Program!

Hey!!! Let's Join Forces!!!



Partnerships

Contractor
Networking

Trainings offered
through the Community
College Workforce
Alliance

QUESTIONS???

COMMENTS...



THANK YOU



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