

## Lead 101

### LEAD INSPECTOR RISK ASSESSOR TRAINING



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### Interesting Fact



- Pre-1978 housing may contain lead-based paint
- Romans added lead to sweeten their wine.
- Wealthy Roman families had increased risk of “going crazy”
- Could this have contributed to the fall of the Roman Empire?
- Were the wealthy Romans lead poisoned?

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### Lead Exposure

#### Environmental

- Paint
- Dust
- Soil
- Water

#### Non-Environmental

- Ayurvedics
- Imported Food, Spices
- Occupational
- Hobbies
- Jewelry, Toys, Clothing

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## Lead Paint



- Lead in paint was banned in 1978
- Pre-1978 housing may contain lead-based paint
- 74% of homes built prior to 1980 have lead paint
- **Pre-1950** even higher probability lead paint
- In CT, 35% of housing stock is pre-1950

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## Lead Paint Hazard Standards

### Toxic Levels:

- Paint for sale (wet paint): **> 0.06% lead by weight**
- Paint chip: **≥ 0.5% lead by weight**
- X-ray Florescence Analyzer (XRF): **≥ 1.0  $\mu\text{g}/\text{cm}^2$**



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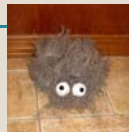
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## Lead Dust



- Not visible (typically)
- Very fine
- High friction leaded surfaces create dust
- Created by renovating pre-1978 homes

### **Solution:**

- Wet cleaning and lead-safe work practices

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## Dust Hazard Standards

### Dust Hazard

Risk Assessment:

Floor:  $\geq 40 \mu\text{g}/\text{sq. ft}$

Window sill:  $\geq 250 \mu\text{g}/\text{sq. ft}$



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## Soil

May contain:

- paint chips
- lead dust



### Solution:

- Cover bare areas by planting grass, shrubs, or with mulch
- Wipe shoes on mats or remove shoes before entering the home

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## Soil Hazard Standard

- **> 400 ppm** must be abated

- Planting grass
- Shrubs
- Mulch
- Excavate, Remove & Replace
- Other landscaping material



- **> 5,000 ppm** must use permanent methods

- Concrete
- Pave
- Excavate, Remove & Replace

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## Water

- Lead pipes
- Solder
  - Lead solder banned in plumbing = 1986
- 40 million households private wells
  - Higher risk of lead in pipes
- Chemical changes made to water systems
  - Change in water source without correct corrosive control
  - Flint, MI (corrosive water = leaches lead from pipes)



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## Water Hazard Standards

Public water systems:

- .015 mg/L or 15 ppb



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## Clearance Standards

### Dust Clearance

Post Abatement:

Floors: <40 µg/sq. ft  
Window sill: < 250 µg/sq. ft  
Window well: < 400 µg/sq. ft



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## Non-Environmental Sources

### Occupational

- Demolition Work
- Bridge Work
- Factory Work
- Arms Manufacturing
- Battery recycling
- Firing Ranges

### Food

- Gardening
- Imported Foods



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## Non-Environmental Sources

### Hobbies

- Ceramics
- Stained glass soldering
- Firearms/bullet making

### Children's Products

- Toys
- Jewelry
- Clothes



### Cultural

- Ayurvedics
- Makeup



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## Ayurvedics – plant based

- Herbs, minerals, metals, animal products
- 1 in 5 contain harmful levels of lead, mercury, and arsenic\*
- Imported from India & South Asian countries
- Regulated as dietary supplements
  - (i.e. medical standards do not apply)



\*Robert B. Saper, MD, MPH; Stefanos N. Kales, MD, MPH; Janet Paquin, PhD; Michael J. Burns, MD; David M. Eisenberg, MD; Roger B. Davis, ScD; Russell S. Phillips, MD. (2015, December, 15). Heavy metal content of Ayurvedic Herbal Medicine Products. Retrieved from JAMANetwork./journals

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## Gardening

Food contamination from...

- Improper food handling
  - Working with contaminated soil then touching food
- Lead contaminated soil (controversial)
  - Test soil prior to planting
  - Use a raised garden with new soil



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## Imported Foods and Candy

Packaging food products:

- Leaded ink is used in/on candy wrappers
  - 1995 FDA policy for industry ban on leaded ink
- Lead solder is used to seal imported metal food cans
  - 1991 US banned the use of lead solder on US manufactured food products
  - 1995 US banned the use of lead solder on imported food products

Problem is.....

- Only a small amount of imported products are tested
- Potential food contamination
- Limited FDA standards



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## Occupational Lead Exposure

- Painters, renovators, abatement workers, etc...

- Lead dust can contaminate.....
  - ✓ Interior of vehicle
  - ✓ Clothes
  - ✓ Shoes

- Important to remember....

- Shower on worksite if possible
- At a minimum wash hands and face
- Change clothes and shoes before leaving worksite
- Remove shoes before entering home
- Wash work clothes separately



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## Hobbies: Pottery & Ceramics

- Imported pottery may be coated in glaze containing lead
- Over time lead may leach out of the pottery
- If unsure, use as decoration rather than for food



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## Lead in Pewter

- Low grades of pewter may contain lead
- Over time lead may leach out into food and beverages
- Do not store food or beverages in pewter containers



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## Potential Leaching Sources

Lead Crystal



Pots and Pans



Pressure cooker's rubber seal



Lead can leach out of lead crystal, pitted pots and pans and rubber seals into acidic beverages or food!!!

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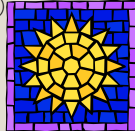
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## Hobbies: Lead Soldering

- Used in stained glass
  - Releases toxic lead fumes
- Should be done away from children and pregnant women
- Done in well ventilated area
- Use personal protective equipment (PPE)



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## Lead and Firearms

- Lead dust is generated from bullets moving down barrels and when hitting bullet traps in a firing range
- High levels of dust may settle on instructors or shooters skin and/or clothing
- Clothing and shoes should be changed before entering the car or home.
- Showering can remove any lead dust on the skin

### Lead in Firing Ranges Fact Sheet:

[https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental\\_health/eoha/pdf/FiringRangeFSpdf.pdf?la=en](https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/eoha/pdf/FiringRangeFSpdf.pdf?la=en)

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## Children's Jewelry

- Inexpensive jewelry can have high levels of lead
  - Discount stores and gumball machines



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Do you know.....



Jarnell Brown

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In Minnesota on February 22, 2006, Jarnell Brown died from lead poisoning after swallowing a metal charm, which laboratory testing revealed to be 99.1% lead

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Who was Freddie Gray?



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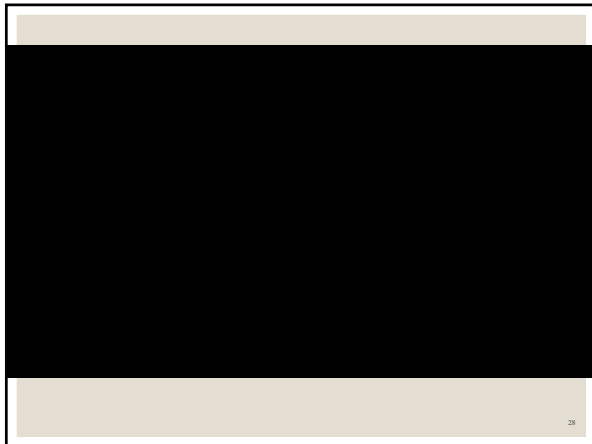
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» Before Freddie Gray was fatally injured in police custody in 2015, and the city of Baltimore, MD was plunged into rioting, his life was defined by failures in the classroom, run-ins with the law and an inability to focus on anything for very long

» Many of those problems began when he was a child and living in a house built in 1910, according to a 2008 lead-poisoning lawsuit filed by Gray and his siblings against the property owner. The suit resulted in an undisclosed settlement

<http://www.baltimoresun.com/news/maryland/sun-investigates/85104543-132.html>



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# Child Case Management

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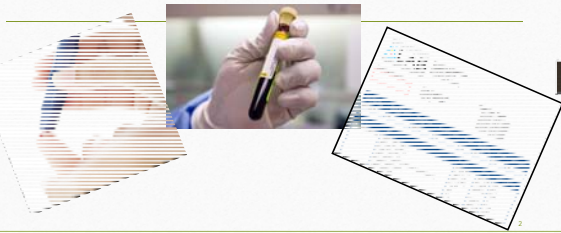
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## WHERE DOES IT ALL BEGIN?




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### Adverse Health Effects of Lead Exposure



- Death
- Encephalopathy
- Nephropathy
- Frank Anemia
- Colic
- Decreased hemoglobin synthesis
- Increased vitamin D metabolism
- Increased risk of hypertension in adulthood
- Increased nerve conduction velocity
- Increased level of erythrocyte protoporphyrin
- Decreased vitamin D metabolism
- Decreased calcium homeostasis
- Developmental toxicity
  - Delayed puberty
  - Decreased growth & hearing
- Developmental toxicity
  - Decreased IQ levels & academic abilities
  - Attention-related behaviors
  - Anti-social behaviors

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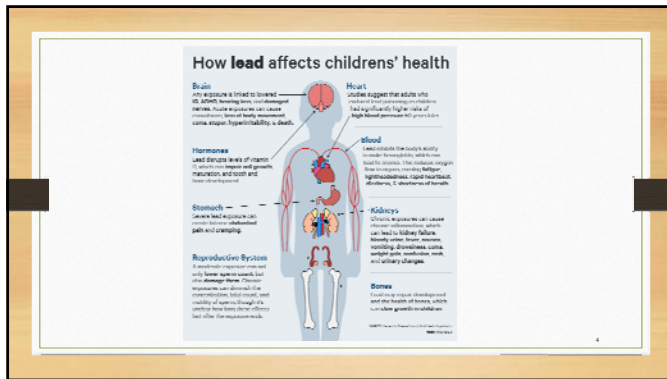
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**A. Universal Blood Lead Testing is Mandated**

Test children:

- Between 9 months and 36 months of age, each year for elevated blood lead levels
  - Most providers test at 12 months and 24 months of age
- Between 36-72 months of age, if not previously been tested, regardless of risk
- < 72 months of age, with developmental delays (especially if associated with pica)

➤ Every child in CT **MUST** be tested twice for a BLL between the ages of 9-36 months

- Generally pediatricians test at 12 and then again at 24 months

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**Blood Lead Level Reporting**

Laboratories must report BLLs  $\geq 10\mu\text{g}/\text{dL}$  (includes Leadcare II) within 48 hours to DPH and LHD

CGS § 19a-110(a)

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## FOR A CHILD WHO HAS RECEIVED A BLOOD LEAD TEST...



**Requirements and Guidance for Childhood Lead Screening**  
by Health Care Professionals in Connecticut  
Lead Poisoning Prevention and Control Program  
Revised April 2015  
www.ct.gov/dph

**A. Universal Blood Lead Testing is Mandated**

**Test children:**

- Between 9 months and 36 months of age, each year for elevated blood lead levels
- Blood provides test at 12 months and 36 months of age
- Between 36-72 months of age, if not previously been tested, regardless of risk
- < 12 months of age, with developmental delays (especially if associated with poor)

**B. Diagnosis, Testing, and Follow-up**

Venous Results for Confirming Capillary (Screening) Blood Lead Results with a Venous Blood Lead Test*	
Result of screening test (µg/dL)	Perform Venous Blood test within:
5-19	3 months
20-44	1 month-1 week*
45-59	48 hours
60-69	24 hours
≥ 70	Immediately

Schedule for Follow-up Venous Blood Lead Testing for Children with an Elevated Blood Lead Level*		
Blood Lead Level (µg/dL)	Early follow-up (1 <sup>st</sup> 2-4 tests after identification)	Late follow-up (after BLL begins to decline)
5-14	3 months	6 - 9 months
15-19	1 - 3 months	3 - 6 months
20-24	1 - 3 months	1 - 3 months
25-44	2 weeks - 1 month	1 month
> 45	As soon as possible	Chelation with subsequent follow-up

### Capillary screening test follow-up:

If result of screening test (µg/dl) is	Perform Venous Blood test within:
5-19	3 months
20-44	1 month-1 week*
45-59	48 hours
60-69	24 hours
≥ 70	Immediately

### Venous test follow-up:

Venous blood lead level (µg/dL)	Early followup (first 2-4 tests after identification)	Late follow-up (after BLL begins to decline)
5 - 14	3 months	6 - 9 months
15 - 19	1 - 3 months	3 - 6 months
20 - 24	1 - 3 months	1 - 3 months
25 - 44	2 weeks - 1 month	1 month
> 45	As soon as possible	Chelation with subsequent follow-up

### Problems with retesting:

➤ If a medical provider is not following DPH REQUIREMENTS AND GUIDELINES:

- Educate provider on screening requirements
- Notify the LR&HHP
- Contact Regional Lead Treatment Center (RLTC),
  - Ask them to contact the doctors to remind/re-educate
- Refer the family to the RLTC for follow-up care



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### Problems with retesting:

➤ If the parents or guardians are refusing to get a child retested....

- Enlist the help of Pediatrician
- A referral to DCF may be warranted (it depends on the situation & BLL)

**CT DCF Mission:**

*Working together with families and communities for children who are healthy, safe, smart and strong.*

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### Effective Child Case Management Practices

- Management of BLLs  $\geq 5 \mu\text{g/dL}$
- Monitor BLL increases and decreases
- Utilizing template letters from Lead Maven
- Provide education to guardians

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### Child Case Management

Local health staff are responsible for:

- ✦ Having an individual case management file for each child
- ✦ Sending a reminder letter for each child who has a capillary test between 5 ug/dL and 9 ug/dL.
- ✦ Providing case management (letters, phone calls, home visits) for each child who has a venous test  $\geq 5$  ug/dL.
- ✦ Providing case management (letters, phone calls, home visits) for each child who has a capillary test  $\geq 10$  ug/dL.
- ✦ As needed, referring any parent or pediatrician to staff in the Regional Lead Treatment Centers

**Required Case Management Follow-Up By Test Result Level:**

Test Results	Testing Reminder Letter to Guardians	Standard Educational Information	Call Doctor to Confirm Result	Refer to Regional Treatment Center	Epidemiological Form	Comprehensive Lead Inspection	Call Parents (as needed)
Capillary 5- 9 ug/dL	X	X (recommended, but not required)					
Capillary $\geq 10$ ug/dL	X	X					X

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### Diagnostic Testing and Follow-up for $BLLs \geq 5 \mu\text{g/dL}$

➤ Lead Maven generates testing due dates

**Event Summary**

**Basic Information**

Event ID: 101643392

External ID: 101643392

Event Type: Blood Lead - Child

Person: Ann Phang (Birth Date: 9/15/2016 | 1 Female)

Address: 123 Main Street, West, CT 01010 (SAR)

City: West

County: 01010

Investigator Status: Open

Linked Events: 1 linked event(s) (View)

Attachments: 2 attachment(s) (Add)

Additional Information: Testing Due Date: 01/12/2017

Linked Cases: 1 linked case (View)

Linked Case: 101643392 - 123 Main Street, West, CT 01010 (SAR)

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### Diagnostic Testing and Follow-up for $BLL \geq 5 \mu\text{g/dL}$

Lead Maven System generates

## REMINDER LETTERS

March 09, 2017

To the Parents/Guardians of Jane Doe  
111 Main St  
Anytown, CT 06001

Dear Parents/Guardians of Jane Doe,

I would just like to remind you that your child Jane Doe is due for a follow-up venous blood lead test by 06/01/2017 because of his/her most recent blood lead test taken on 03/03/2017 with a result of 12  $\mu\text{g/dL}$ . Please contact your doctor's office to schedule a time to get your child retested. If your child has had blood taken recently, contact his/her doctor to check on their blood lead test result.

Thank you in advance for your time. Contact me at (860) 448-4882 with any questions or concerns.

Sincerely,

Case Manager  
Anytown Health District  
Childhood Lead Poisoning Prevention Program

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**Standard Educational Information Packet:**  
can be downloaded from the DPH website, complies with CGS



**Lead Poisoning Prevention**


**Where is Lead Found?**

- Paint: Lead can be found in paint that was made before 1991 and can be on any painted surface in your home, like porches.
- Dust: Lead dust in the home is comes from lead chipping and peeling, sanding and scraping old remodeling or old paint (lead dust problem).
- Soil: Old paint that has fallen off the outside of a house can lead to lead dust in the soil.
- Lead can also be found in ceramic dishes, crystal, glass, water pipes, solder and fittings, and old home remedies.
- Some jobs and hobbies can expose children and adults. Examples are painting, house remodeling, auto work, making jewelry, car stereo/battery or old indoor firing ranges.

**Is Your Child At Risk For Lead Poisoning?**

If you answer yes to any of these questions you may be at risk, even if your child is older.

- Does your child live in or often visit a building that...




**Eating Right Helps Fight Lead Poisoning**

Lead tricks the body into thinking it is iron, calcium or zinc. Eating healthy can help decrease the lead from staying in the body.

Don't let your child go through the day on an empty stomach!

**Five Basic Food Groups**

- Breads, cereals and grains
- Vegetables
- Fruit
- Milk and milk products
- Meat, chicken, fish, nuts, and beans



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**Child's Case File Contains:**



- All BLL results
- The Epidemiological Investigation Form (must have hardcopy)
- Dates and/or notes related to:
  - Letters sent, contact attempts, notes of telephone conversations, etc.

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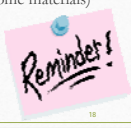
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***Document, Document, Document...***

- Times & dates of contact with family & PCP
- Confirm that educational material provided is understood (available in Spanish on DPH webpage, other languages for some materials)
- Monitor follow-up care and retesting schedule



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### Child Case Closure Criteria

#### ➤ BLL drops to a venous level of $< 5 \mu\text{g/dL}$

- No open environmental case

#### ➤ Child relocates:

- Within CT
  - Case will be shared with new LHD
  - Close case



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### Child Case Closure Criteria

#### ➤ Outside of CT

- Notify LR&HHP
- Try to get new address
- DPH will contact new State's Lead Program
  - DPH must close case



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### Child Case Closure Criteria

#### ➤ Administrative closure

- Should have documentation of at least three (3) unsuccessful attempts to locate family (MD does not know where family is, no one lives at house, no working phone, mail undeliverable, etc.)
- Ask DPH case manager to close case
- Not to be used often

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Any Questions?

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Please don't hesitate to call  
Sherine, Brianna, Kim or Jim  
860-509-7299

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# Timeline for Completing EBLL Investigation

When do I have to complete it and why?



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## Definitions:

- Elevated blood lead level** - a blood lead concentration equal to or greater than twenty (20) micrograms per deciliter (µg/dl) or as defined by Connecticut General Statutes section 19a-111.
- Epidemiological investigation** - an examination and evaluation to determine the cause of elevated blood lead levels. An epidemiological investigation will include an inspection conducted by a lead inspector to detect lead-based paint and report of findings. This investigation must also include evaluation of other sources such as soil, dust, pottery, gasoline, toys, or occupational exposures, to determine the cause of elevated blood lead levels. The investigation may also include isotopic analysis of lead-containing items.

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## What is an Epi Investigation?

**Comprehensive Lead Inspection (CLI)** - an inspection which identifies lead based paint surfaces and hazards. This includes XRF testing, dust, water and soil collection and analysis. Additionally, evaluate other non-environmental sources as a potential lead hazard.

**Epidemiological Form** - document current version Epiform9 3-15-18, which identifies potential lead exposures and/or factors that could causes a child to have a high BLL.



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## Notification of BLL to LHD

Blood Lead Level results received from:

- Laboratory
  - Labs must report  $\geq 10\mu\text{g}/\text{dL}$  within 48 hours
- Maven
- DPH Lead, Radon and Healthy Homes Program

**Notification = Beginning of Timeline**

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## Initiate Epidemiological Investigation

- Schedule epidemiological interview and comprehensive lead inspection
  - Document all communication (phone, letter, fax)

Why?

- **CGS § 19a-111**
- **RCSA § 19a-111-3(c)(1)**

**Initiate within 5 working days after Notification of EBLL**

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## Completion of Epidemiological Investigation

- Completed Epidemiological Form
- Completed comprehensive lead inspection
  - Tested all painted surfaces
  - Taken all samples (dust, bare soil and water)
  - Receipt of all laboratory results
- All information must be entered in Maven

Why?

- **CGS § 19a-111**

**Completed within 30 days from Notification of EBLL**

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## Inspection of Other Dwellings

- Must occur if a child <6 lives in the same building as an EBL child
- Must include testing of all defective surfaces (interior, exterior and common areas)

Why?

- **RSCA § 19a-111-3(c)(2)**
- **RSCA § 19a-111-2(a)(b)(d)(e)**

**Begin within 30 days from  
Notification of EBL – Complete ASAP**

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**STATE OF CONNECTICUT**  
DEPARTMENT OF PUBLIC HEALTH

**LEAD INSPECTION AND TESTING SUMMARY FORM**

This lead inspection and testing summary form must be completed and sent to the property owner of the property in accordance with Section 19a-111c-3 (g) of the regulations of Connecticut State Agencies concerning Lead Poisoning Prevention and Control. A Comprehensive Lead Inspection is one performed to satisfy CGS 19a-111 (epidemiological investigation) and CGS 19a-111(d) (on-site inspection). Bare soil areas, dust and water are required to be tested for the presence of lead as part of a comprehensive lead inspection.

**PROPERTY INSPECTED/TESTED**

(Check): Residence ☐ Child Day Care Center/Group Day Care Home ☐ Family Day Care Home ☐  
Name: \_\_\_\_\_

(Check One): Comprehensive Lead Inspection ☐ Limited Testing ☐

Street Address: \_\_\_\_\_ Apt.# \_\_\_\_\_ Floor: \_\_\_\_\_

City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

If Apartment, Number of Units: \_\_\_\_\_ Year Property Built: \_\_\_\_\_

**PROPERTY OWNER**

Name: \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

**INSPECTING ENTITY**

1. If Comprehensive Inspection:

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## Lead Inspection Testing Summary Form

- After completion of Epi Investigation
  - Submit LITSF to:
    - Property Owner
    - Local Health
    - DPH Commissioner
    - Enter into Maven

Why?

- **CGS § 19a-111j**
- **RCSA § 19a-111-3(d)**

**Must be submitted 2 days after completion  
of Epidemiological Investigation**

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## Notification Sign

- Posted at every entrance
  - By property owner
    - ✓ Template on dph website "For Local Health"

Why?

- **RCSA § 19a-111-3(e)**

Must be posted 2 days after receipt of  
Inspection Report

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## Lead Abatement Order

- Lead order must be:
  - Issued and signed by DoH
  - Sent to Property Owner
    - ✓ By certified mail with return receipt
    - ✓ Hand delivered with date documented
  - Enter date issued into Maven
- Template on DPH website "For Local Health"

Why?

- **CGS § 19a-111**
- **CGS § 19a-111j**
- **Lead Program Response Protocol Step 5**

Completed within 30 days from  
Notification of EBLL

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## What do you do.....

- If you have not received all environmental lab results within 30 days from notification of an EBLL?
  - Order letter **must** be sent for lead painted surfaces and any positive environmental results that you have received
- After receipt of all environmental lab results
  - Send addendum to order letter for positive results

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### What is the “Notification of Inspection Results” date?

- Date that Property Owner received Lead Abatement Order letter
  - Date from return receipt of certified mail (green card)
  - Date that Lead Abatement Order was hand delivered
- Important reference date



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### Lead Management Plan

- Must be completed for intact leaded surfaces
- Must be submitted by property owner
- Template on DPH website “For Local Health”

Why?

- CGS § 19a-111j
- RSCA § 19a-111-2(e)

**Must be submitted by property owner 60 days after receipt of notification of inspection results**

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### Lead Abatement Plan

- Submitted by property owner
  - Can be completed by:
    - ✓ Property Owner
    - ✓ Certified Planner Project Designer
      - Verify certification
- Enter date received into Maven
- Template on DPH website “For Local Health”

Why?

- CGS § 19a-111j
- RSCA § 19a-111-5(a)

**Submitted within 15 working days of notification of inspection results**

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## Review Lead Abatement Plan

- Document date that lead abatement plan was received
- Read through abatement plan
  - Ensure all positive XRF results are addressed
  - Make sure that appropriate abatement methods are used verify contractor licenses
  - Any questions call us
- Enter approved abatement plan date into Maven

Why?

- **CGS § 19a-111j**
- **RSCA § 19a-111-5(a)**

**Complete Lead Abatement Plan review  
within 10 working days of receipt**

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## Start of Lead Abatement

- Approved Lead Abatement Plan
- Know actual start date
- Conduct site visit(s) during abatement
  - Verify Licensed Lead Abatement Contractor
  - Enter start date into Maven

Why?

- **CGS § 19a-111j**
- **RCSA § 19a-111-5(a)**

**Abatement shall begin within 45 working days  
from notification of inspection results**

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## Lead Abatement Completion

- Completed in a timely manner
- Document progress
- Enter completion date into Maven

Why?

- **CGS § 19a-111j**
- **RCSA § 19a-111-5**



**The sooner the better!**

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## Re-Inspection

- LHD notified of completed Lead Abatement
- LHD must conduct a re-inspection
  - Verify that all work was done according to approved abatement plan
- Collect clearance dust wipe samples (LHD or Consultant)
  - Well, sill and floor in each room or area that was abated
  - Floor sample 10 feet from entrance of abated area
- Enter date into Maven

Why?

- CGS § 19a-111j
- RSCA § 19a-111-3(h)(1)



Completed 10 working days after notification of completion of Lead Abatement

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## Letter of Compliance

- The following information must be included:
  - Date of re-inspection
  - Dust levels have been found to be in compliance
  - Include statement that the management plan for intact leaded surfaces must be followed (if applicable)
  - Completed by a Code Enforcement Official or Consultant

Why?

- RSCA § 19a-111-4(f)



Mail 5 working days after lead inspector has found dwelling free of lead hazards

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## Post Abatement Inspection Report

Completed by Code Enforcement Officials **only**

- Post Abatement Inspection Report includes:
  - Visual inspection
    - ✓ Document date
  - Passing clearance dust wipes
  - Statement indicating all surfaces have been abated
  - Management plan (if applicable)
    - ✓ Document date
- Enter date into Maven

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## Post Abatement Inspection Report

- Send Post Abatement Inspection Report
  - Property owner
  - DoH
  - DPH Commissioner
- Enter date into Maven
- Notify CT DPH to close case

Why?

- **CGS § 19a-111j**
- **RSCA § 19a-111-3(h)(1)**

Mail within 2 working days after  
re-inspection is completed

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## FYI.....

Code Enforcement Officials **can**  
issue a combined Letter of  
Compliance/Post Abatement  
Inspection Report



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# THE INSPECTION

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## Your Responsibility for “The Inspection”

- Identify the source(s) or potential source(s) of lead
  - Including non-environmental sources
- Investigate all accessible areas in the residence
  - Including all exterior structures
- Investigate other residences
  - Other units within building w/child < 6
  - Other residences the child frequents
  - Childcare



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## A Comprehensive Lead Inspection (CLI) must be done when

- EBLL  $\geq 20$   $\mu\text{g}/\text{dL}$  venous
- Two 15-19  $\mu\text{g}/\text{dL}$  venous tests > 90 days apart
  - Shall begin within 5 working days
- Other dwelling unit with child < 6 years
  - Must be conducted within 30 days
- Licensure for OEC

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## CLI Must be conducted by

- **Trained Code Enforcement Official (CEO)**
  - Must be current with training certificate
- **Licensed Lead Consultant**
  - Certified Lead Inspector
  - Certified Lead Inspector/Risk Assessor

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## Be Prepared

- Review Surfaces that you need to test
  - ✓ 19a-111-3(1) (A&B) interior and exterior
- Field kit:
  - Tool box with:
    - Dust wipes with tubes
    - Zip lock bags for soil sampling
    - Water sampling bottles (at least 2)
    - Labels
    - Pens- permanent marker
    - Paint scraper/hammer
    - White paper
  - Flashlight
  - Camera
  - Tape measure
  - Tape for template
  - Safety goggles
  - Gloves
  - Spoons
- Room Layout Sheets
  - ✓ Interior, exterior, common areas
- Laboratory Collection Forms



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## Be Prepared

- XRF
  - DPH has 3 (2 LPA 1s, 1 Heuresis)
  - On loan at Local Health Department
    1. Meriden (Heuresis)
    2. Stamford (LPA 1)

Make sure battery is charged!



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## XRF Safety



- Must be trained in Radiation Safety (web based training)
- Must handle with care
- Minimize exposure by distance and shielding
- Keep others from being on the side of the XRF when operating
- Must wear a dosimeter badge

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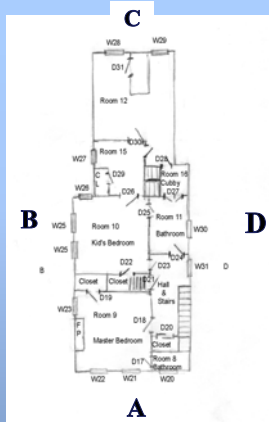
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## Starting your interior inspection

- Your safety is priority!!
- Proceed room to room in systematic, orderly fashion
- Show orientation
  - ✓ A, B, C, D
  - ✓ Note locations of doors, windows, closets, stairs
  - ✓ Name & # rooms/areas
  - ✓ Note condition of paint
  - ✓ Note housing issues that need correction prior to Abatement
  - ✓ Don't forget Common Areas



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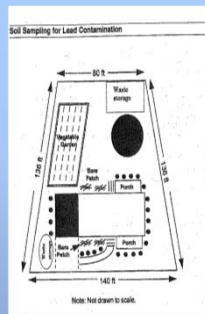
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## Don't forget the exterior

- Walk/survey the property
- Use A, B, C, D orientation
- Sketch all exterior buildings
  - ✓ detached garages
  - ✓ porch
  - ✓ sheds
  - ✓ play area/play ground equipment
  - ✓ gardens
  - ✓ fence



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## Soil Sampling

### Supplies:

1. Disposable gloves
2. Hard shell containers
3. Labels - marker
4. Lab forms
5. Spoons
6. Bag for completed samples
7. Bag for trash

- Sample bare soil - drip line, play areas, gardens, etc.
  - ✓ Note sample locations on exterior sketch
  - ✓ Document sampling methodology (grab vs. composite)
- Results are reported in ppm or µg/mg

### Action/Hazard level:

400 ppm = control hazard

> 3000 ppm = permanent abatement method

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## Soil Sampling Methodology

### Two types:

#### Composite soil sampling

- Multiple grab samples equidistant over an area
- Combine grab samples from one side of the dwelling into one composite
- Use core tool or plastic spoon
- Go to ½ inch deep
- Include paint chips if present
- No more than 10 grabs per composite

#### Grab Soil Sampling

- One sample per location
- Use core tool or plastic spoon
- Go to ½ inch deep
- Include paint chips if present



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## Water Sampling

### Supplies:

1. Water collection container from DPH Lab
2. Labels - marker
3. Lab forms
4. Bag for completed samples



- Collect when water has not been used for 6 hours
- Collect 2 water samples per dwelling
- Label both water bottles (1<sup>st</sup> & 2<sup>nd</sup> draw)

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## Water Sampling



### First draw water sample:

- Collect as soon as water is turned on
  - ✓ Identifies:
    - Premise plumbing (Water service lines within the home)
    - Fixtures

### Second draw water sample (flush sample):

- Collect after 2 minutes of flushing
  - ✓ Private wells may need to run water longer
  - ✓ Identifies:
    - Water from exterior service line/well

### Action/Hazard level:

15 ppb = 15 µg/L = 0.015 mg/L

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## Dust Wipe Collection

### Supplies:

1. Disposable gloves
2. Ghost Wipes - required
3. Hard shell containers
4. Labels - marker
5. Lab forms
6. 1 sq ft template or ruler
7. Masking tape
8. Bag for completed samples
9. Bag for trash



- Must sample Floor & Window Sill
- Document/describe location
- Place in labeled container and submit to lab

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## Dust Wipe Collection 101

- Always change gloves between sample collection
  - ✓ Do not touch anything other than the wipe and the surface to be sampled
- Fold the wipe completely before inserting it in the tube
- Consider pre-labeling dust wipes tubes
- Clean any templates between sampling locations
- A minimum of 2 unused or blank wipes must be submitted
  - ✓ 1 – 20 dust wipes samples = 2 blanks
  - ✓ Then add 1 blank wipe for every additional 20 samples submitted
  - ✓ 21 – 40 dust wipes samples = 3 blanks
  - ✓ 41 – 60 dust wipes samples = 4 blanks
- **MUST** include the dimensions of sampling area

### Action/Hazard level:

Floors:  $\geq 40 \text{ ug/ft}^2$

Interior Window Sills:  $\geq 250 \text{ ug/ft}^2$

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## Paint Chip Sampling

- XRF results are inconclusive
- No flat surface to test
- XRF instrument will not fit in the area to be tested



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## Paint Chip Sampling

### Supplies:

1. Disposable gloves
2. Labels
3. Hard shell containers
4. Cutting device
5. Bag for Collection



New Jersey Department of Environmental Protection Division of Environmental Health Laboratory Services 1000 South Plainfield Avenue, Suite 200, Plainfield, NJ 07060 Phone: 973-260-1000			
Subcontractor's Information		Name: _____	
Address: _____		City: _____	
State: _____		Zip: _____	
Contractor's Information		Name: _____	
Address: _____		City: _____	
State: _____		Zip: _____	
Date: _____		Collector's Name: _____	
<b>TEST REQUESTED</b> <input type="checkbox"/> Lead (Pb) (EPA 9001-01) <input type="checkbox"/> Lead (Pb) (EPA 9001-01) <input type="checkbox"/> Other: _____			
*** PLEASE GROUP EACH SAMPLE TYPE ON A SEPARATE FORM ***			
LABORATORY USE ONLY	Sample No.	Sample ID	Location of Sample
A			
A			
A			

- Document/describe location
- Cut and collect 1-4 sq. inches of paint (sample all layers)
- Place in labeled container and submit to lab
- Inspector must repair surface if it was intact

### Action/Hazard Level:

≥ .3% by weight or 3,000ppm

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## EPA approved Lead Swabs

- Are these approved in CT as an acceptable method for testing for the presences of lead?

NO!



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## Other Samples

- Spices
- Pottery
- Toys
- Cosmetics
- Candy
- Candy wrappers
- Ayurvedics
- Hobby supplies



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## Lab Submission Form

### Supplies:

1. Disposable gloves
  2. Hard shell containers
  3. Labels - marker
  4. Lab forms
  5. Bag for completed samples
- Call us in advance
  - Description of product
  - Obtain original product with packaging if possible
  - Take pictures of product
  - Place in labeled container
  - Submit to DPH lab

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## Dr. Katherine A. Kelley Public Health Laboratory

395 West Street  
Rocky Hill, CT 06067

**MAIN NUMBER**  
(860) 920-6500

**FAX**  
(860) 920-6710

**Sample/Specimen  
Receiving**  
(860) 920-6680

**Outfitting (Supplies)**  
(860) 920-6674/6675




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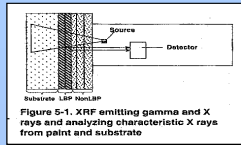
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## XRF Analyzers 101



- Instrument exposes a painted surface to radiation emitted from a sealed source
- The source is cobalt-57 (Co-57)
- Co-57 emits energy in the form of gamma rays
- The elements in the paint are “excited” and respond by emitting energy in the form of x-rays, this response is known as fluorescence

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## XRF Use & Operation (LPA 1 specific)



- Geiger counter
  - Take readings before and after use
- Choose a job number (new unit)
- Set abatement level (1.0 mg/sq.cm)
- Calibration: In **“Time Corrected”** mode (select mode)
  - Measure standard calibration block (1.0 mg/sq.cm.) **3 times**
  - Record on data form (<7-1.3 acceptable)
  - Measure blank side (0.0 mg/sq.cm.) **3 times for reference**
- Go to **“Quick”** mode (select mode) - complete all measurements
- Repeat calibration step at end of job and/or every 4 hours

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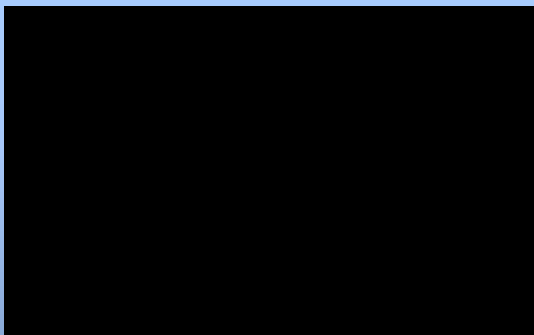
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## Heuresis Video



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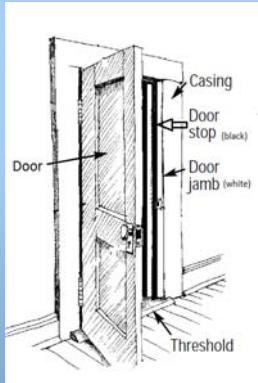
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## DOOR COMPONENTS



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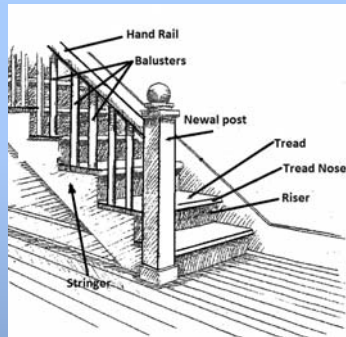
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## STAIR COMPONENTS



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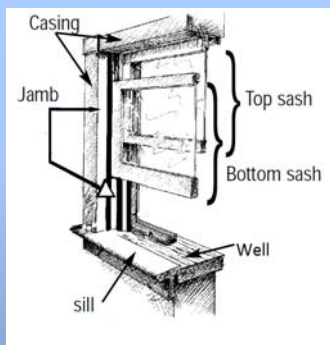
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## WINDOW COMPONENTS



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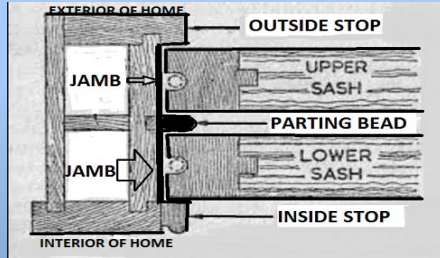
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## WINDOW COMPONENTS

CROSS SECTIONAL VIEW OF  
WINDOW COMPONENTS



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## Post Abatement Testing:

Types of Abatement	Type of Testing
Replacement of window/door/trim	Clearance dust wipes
Paint Removal <ul style="list-style-type: none"> <li>Chemical stripping</li> <li>Mechanical stripping</li> <li>Wet scraping</li> <li>Wet sanding</li> <li>Heat gun</li> </ul>	XRF testing
Encapsulations <ul style="list-style-type: none"> <li>Rigid enclosure</li> <li>Cementitious</li> <li>Liquid</li> </ul>	Clearance dust wipes
Soil 6" of landscaping material <ul style="list-style-type: none"> <li>Mulch</li> <li>Soil</li> </ul>	Visual Inspection/Verify depth
Soil removal/tiling/mixing <ul style="list-style-type: none"> <li>Including after exterior work</li> </ul>	Soil sample testing

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## Post Abatement Testing:

Clearance wipe sampling must be done:

- In every room where abatement was done
- Common areas where abatement was done
- Entrance and exit of abatement area

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## Clearance Standards:

Floors:  $< 40 \mu\text{g}/\text{ft}^2$

Window sills:  $< 250 \mu\text{g}/\text{ft}^2$

Window wells:  $< 400 \mu\text{g}/\text{ft}^2$

Soil:  $< 400 \text{ ppm or mg/kg}$

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## Lead Abatement Waste Disposal

- Homeowner and Lead Abatement Contractor are responsible for managing waste
- Up to 10 cubic yards
  - ✓ Homeowner is allowed to dispose of
- > 10 cubic yards
  - ✓ TCLP (Toxicity Characteristic Leachate Procedure)

Hazardous waste:

5 mg/kg, 5 mg/l or 5 PPM

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## DEEP Regulation

CT Hazardous Waste:

- **Must** be shipped/transported by permitted transporters
- **Must** go to a permitted hazardous waste treatment, storage or disposal facility (TSDF)



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## Waste Disposal

For additional information on  
hazardous waste handling  
requirements

**CT DEEP:**  
**Ross Bunnell**  
**(860) 424-3274**



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## Methods of Abatement

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### What is Abatement?

**Definition:**

Abatement means any set of measures designed to **eliminate lead hazards** in accordance with standards established.... including, but not limited to, the **encapsulation, replacement, removal, enclosure or covering** of paint, plaster, soil or other material containing toxic levels of lead....

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### Abatement Methods

Per 19a-111-4(c)(3)(A-C)

1. Replacement
2. Encapsulation
3. Removal

**Note: Enclosure is a form of encapsulation**

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## 1. Replacement

- o Removal of components containing lead-based paint
- o Replaced with new components




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## 1. Replacement

Examples of replacement:

- o Windows
- o Doors
- o Trim



**Note: Replacement is feasible for many exterior and interior architectural components**

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## 2. Encapsulation

Types of Encapsulant:

- o Rigid encapsulant (ex. enclosure)
- o Liquid encapsulant
- o Cementitious encapsulant




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## 2. Encapsulation

- o Permanent cover over the lead-based surface
- o Lead-based paint inaccessible if applied correctly
- o Liquid Encapsulants contain bitrex (makes surface unpalatable)
- o Surfaces with lead-based paint are covered & sealed
- o Shall bond to the substrate (not just the surface paint)

**Note: All encapsulated surfaces must be included on a lead management plan**

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## 2. Encapsulation

Examples of Rigid Encapsulants:

- o Vinyl siding
- o Dry wall
- o Fiberglass
- o Wood



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## 2. Encapsulation

DPH Approved Liquid/Cementitious Encapsulants:

- o LeadLock
- o L-B-C Lead Barrier Compound Type III/Child Guard
- o Plaster-In-A-Roll
- o Faster Plaster Wall Liner



**Note: Only products listed on the DPH Registry are authorized for use in CT. Must follow manufacturer's guidance for application thickness.**

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## 2. Encapsulation

The following ARE NOT encapsulants:

- ◊ A new coat of paint or primer
- ◊ Wall paper coverings
- ◊ Contact paper
- ◊ Any unapproved encapsulant
- ◊ Any products advertised as a lead-based paint sealant



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## 3. Removal of Lead Paint

Removal methods include:

- ◊ Chemical stripping
- ◊ Mechanical stripping
- ◊ Wet scraping/Wet sanding



**Note: Must be XRF tested <1.0 mg/cm<sup>2</sup> after removal is done, documented and placed in environmental file**

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## 3. Removal of Lead-Based Paint

Chemical stripping:

- ◊ Stripper is applied and removed by manual scraping
- ◊ Variety of removal products
- ◊ All layers of lead-based must be removed



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### 3. Removal of Lead-Based Paint

#### Mechanical Stripping

- Requires the use of power tools:
  - Needle guns (metal surfaces)
  - Vibrating, belt and rotary sanders
  - Other impact strippers that employ the use of steel studs that rotate in an enclosed head to impact the painted surface (metal surfaces)



**Note: Mechanically powered abatement equipment requires the use of HEPA-equipped vacuum attachments**

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### 3. Removal of Lead-Based Paint

#### Wet sanding/scraping:

1. Manually removes loose and peeling paint
2. Mist the peeling paint before scraping/sanding
  - ✓ reduces the amount of lead dust
3. Paint chips and dust that are generated must be controlled




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### 3. Removal

#### Heat Gun:

- Softens the paint
- Then scrapped off



**Note: To prevent vaporization, the temperature must not exceed 700 degrees Fahrenheit**

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### 3. Removal - Soil Abatement

- Placement of mulch/grass seed/landscaping material:

- Visual inspection
- Verify depth of material
  - 6 inches



- Removal/replacement:

- Test replacement soil prior to replacement
- Request copies of lead test from contractor

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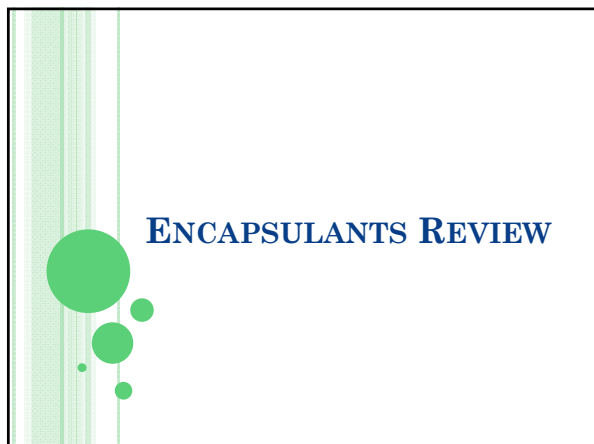
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State of Connecticut - Department of Public Health  
LEAD AND HEALTHY HOMES PROGRAM  
REGISTRY OF AUTHORIZED ENCAPSULANT PRODUCTS

Encapsulants are coatings applied to lead in non-hazardous forms that are made to be long lasting barriers over lead paint. Conventional paint is not an encapsulant. Only the products listed on this Registry are authorized for use in Connecticut. Encapsulant use is prohibited on fireproofs, window casings, window parting beads, window stops, window sills, door jambs, door edges, or friction surfaces. Follow manufacturer's instructions/recommendations for product use. Please refer to the Encapsulant Product Fact Sheet and manufacturer's literature for more detailed information on each product. Authorizations followed by an asterisk (\*) are valid for a one year period from the authorization date indicated.

Product Name	Manufacturer	Not Listed for Use on These Surfaces	Finished Product Thickness	Respiratory Protection Required	Occupancy During Application	Interior Use	Authorization Date
Leadtek™ (Leadtek Lead Coat™) (Liquid)	Leadtek Encapsulant, Inc. 705 S. Berkeley St. Berkeley, CA 94705 (800) 386-1882	Friction surfaces, surfaces with chalking or adhesive residue properly prepared.	15 Mils; exterior 10 Mils; interior	For spray application use NIOSH/NIOSH approved Full Face and Heat Resistant NIOSH/NIOSH approved PPE, SC, 207 or Equivalent	See timing chart of spray application. No, in each area of brush or roller work. Occupancy permitted after brush or roller work is complete and after proper ventilation provided for 24 hours after application.	Interior: YES Exterior: YES	6/1/15 (Original 12/1/15 revision to 60 thickness*)
Leadtek™ Epoxy Compound Epoxy II (Epoxy/Epoxy) Epoxy II (Epoxy/Epoxy) (Liquid)	Leadtek Encapsulant, Inc. 705 S. Berkeley St. Berkeley, CA 94705 (800) 386-1882	Friction surfaces, surfaces with adhesive residue, and surfaces where temperature exceeds 125°F. Chalking surfaces must be adequately prepared.	7 Mils.	For spray application use NIOSH/NIOSH approved respirator.	Occupancy in adjacent rooms is permitted during brush or roller application. Occupancy during spray application is not permitted. Occupancy permitted once application has dried and cured.	Interior: YES Exterior: YES	5/1/2004*

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State of Connecticut - Department of Public Health  
LEAD AND HEALTHY HOMES PROGRAM  
REGISTRY OF AUTHORIZED ENCAPSULANT PRODUCTS

Encapsulants are coatings applied to lead in non-hazardous forms that are made to be long lasting barriers over lead paint. Conventional paint is not an encapsulant. Only the products listed on this Registry are authorized for use in Connecticut. Encapsulant use is prohibited on fireproofs, window casings, window parting beads, window stops, window sills, door jambs, door edges, or friction surfaces. Follow manufacturer's instructions/recommendations for product use. Please refer to the Encapsulant Product Fact Sheet and manufacturer's literature for more detailed information on each product. Authorizations followed by an asterisk (\*) are valid for a one year period from the authorization date indicated.

Product Name	Manufacturer	Not Listed for Use on These Surfaces	Finished Product Thickness	Respiratory Protection Required	Occupancy During Application	Interior Use	Authorization Date
Plaster-In-A-Ball (Epoxy/Plaster) (Epoxy) Integrated into Plaster	Plaster-In-A-Ball Systems 200 Caroline Drive P.O. Box 88 Cherry, South Carolina 29007-0088 (800) 863-3386	Not for use on interior surfaces other than walls and ceilings. Not recommended for use in areas where contact with moisture is likely.	10 Mils.	Generally not required during normal use and handling of water based products. PPE as required for Plaster-In-A-Ball.	Occupancy in adjacent rooms is permitted during application. Occupancy after application permitted after 24 hours.	Interior: YES Exterior: YES	5/1/16*
Plaster-In-A-Ball (Epoxy/Plaster) (Epoxy) Integrated into Plaster	Plaster-In-A-Ball Systems 200 Caroline Drive P.O. Box 88 Cherry, South Carolina 29007-0088 (800) 863-3386	Not for use on interior surfaces other than walls and ceilings. Not recommended for use in areas where contact with moisture is likely.	10 Mils.	Generally not required during normal use and handling of water based products. PPE as required for Plaster-In-A-Ball.	Occupancy in adjacent rooms is permitted during application. Occupancy after application permitted after 24 hours.	Interior: YES Exterior: YES	5/1/16*

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## REMINDER!

- Application of all authorized encapsulant products must be done in the method and thickness instructed by the manufacturer

Question:

Why should we test substrates and encapsulants?

Answer: To test and demonstrate the substrate and/or encapsulant is effective.

4

## PRODUCT FACT SHEETS

Each approved encapsulant on the Registry of Authorized Encapsulants have a product fact sheet. All product fact sheets state:

- Product description
- Application to achieve required product thickness
- Recommended uses
- Prohibited uses
- Surface preparation
- Application
- Occupancy information
- Cautions
- Warranty
- Care & maintenance

Refer to the manufacturer for detailed instructions on how to use their specific product.

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STATE OF CONNECTICUT - DEPARTMENT OF PUBLIC HEALTH LEAD AND HEAVY METALS PROGRAM 410 CAPITOL AVENUE, WASHINGTON, CONNECTICUT 06103			
ENCAPSULANT PRODUCT FACT SHEET			
Encapsulants are coatings that are applied in liquid or semi-liquid form and are made for long-lasting barriers over lead paint. Encapsulated paint is not an abatement. Only the products listed in the Connecticut Department of Public Health Encapsulant Registry are authorized for use. The following information does not constitute an endorsement of the safety or efficacy of any product. It is the responsibility of the user of this product to establish appropriate safety and health practices and to follow instructions and representations of the manufacturer. The product listed on this fact sheet has Connecticut authorization for lead paint abatement on interior and exterior surfaces.			
NAME: <b>LEAD-IT</b>			
Lead Barrier Compound Type II (Interior/Exterior) (DHS Board (Interior/Exterior))			
REQUEST MADE FROM: <b>Harvard Technologies, Inc.</b> 630 Fulton Avenue, Cambridge, MA 02142-0002			
PRODUCT DESCRIPTION: Highly elastic, non-solvent, water-based copolymer. Applies to interior and exterior surfaces. Resistant to abrasion and weather. Compatible with Lead-It Primer and Lead-It Topcoat. Meets all applicable federal, state, and local regulations. Application equipment: airless spray, brush, roller.			
APPLICATOR TO ACHIEVE REQUIRED THICKNESS: Brush or roller: 2 mils Airless spray: 1 mil			
RECOMMENDED USES: Interior and exterior surfaces. Surfaces with additional preparation such as sanding or grinding of lead paint. Surfaces with additional preparation such as sanding or grinding of lead paint.			
UNDESIRABLE USES: Non-porous, non-impact surfaces of cabinets and drawers. Surfaces with additional preparation such as sanding or grinding of lead paint.			

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**THE APPLICATION & MAINTENANCE OF LIQUID ENCAPSULANTS: FOR CODE ENFORCEMENT OFFICIALS, PROPERTY OWNERS, LEAD CONSULTANTS & LEAD CONTRACTORS**

This guidance document (20 pages) includes:

- Definition & Background Information
- Related Information for Encapsulant Use
- Eligibility of Surfaces
- Encapsulation Permitted with Preparation
- Common Preparation Procedures
- Tools and Personnel
- Test 1: X-Cut Tape Test
- Test 2: Patch Test
- Before Application information
- Maintenance

**Documentation:**

- Lead Paint Surface/Substrate Assessment Form
- Encapsulant Maintenance Form (management plan)

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**THE APPLICATION & MAINTENANCE OF LIQUID ENCAPSULANTS**  
For code enforcement officials, property owners, lead abatement contractors



State of Connecticut  
Department of Public Health  
Lead, Radon and Healthy Homes Program  
Division of Environmental Health  
410 Capitol Ave, MSB 1210D  
P.O. Box 345008  
Hartford, CT 06134-0508  
(860) 529-7200

March 28, 2017  
Version 3

Revised 1/2017

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- State of Contents.....3
- Definition and Background Information.....4
- Related Information for Encapsulant Use.....4
- Eligibility of Surfaces.....4
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- General Cleaning.....4
- Surface Preparation.....4
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- Tools and Personnel.....4
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- Mixing.....4
- Coverage per Gallon.....4
- Film Thickness.....4
- Range Equipment.....4
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- Cleaning of Tools.....4
- Removal and Disposal of Masking Materials.....4
- Over-spray, drips or spills.....4
- Management Plan.....4
- Repairs.....4
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### SURFACE PREPARATION FOR X-CUT TESTS

- General cleaning
- Surface repairs
- De-glossing
- Mold/mildew removal
- Surface priming

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### TEST 1: X-CUT TEST (TESTING THE SUBSTRATE)

1. Clean surface
2. Use a utility knife and make two (2) straight cuts in the paint film down to the substrate. These cuts must be about two (2) inches long, intersecting near the middle to form an "X". DO NOT cut into the substrate.
3. Inspect the cuts to establish that the paint film has been penetrated to the substrate. If not, repeat steps 1 and 2 in a different location. DO NOT attempt to deepen a previous cut.
4. Take a 3" length of tape and place the center of the tape at the intersection of the cuts.
5. Smooth the tape into place over the "X" and rub the tape firmly.
6. After 90 seconds, remove the tape by pulling straight down with a quick smooth motion.

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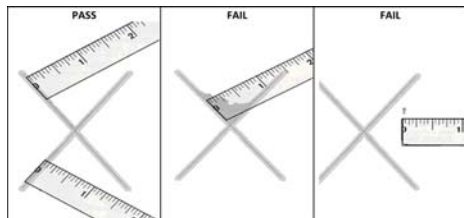
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### INTERPRETATION OF SCORES



Greater than  $\frac{1}{32}$ " of paint is removed on either side of the cuts

Removal of paint more than  $\frac{1}{32}$ " away from the cuts.

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**Licensed Lead  
Abatement  
Contractors must  
keep log of X-cut  
and Patch test**

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**WHERE TO FIND REGISTRY AND APPLICATION &  
MAINTENANCE OF LIQUID ENCAPSULANT MANUAL**

All of the following documents can be found on  
[www.ct.gov/dph/lead](http://www.ct.gov/dph/lead) under the heading "Lead Abatement  
Guidance Document"\*

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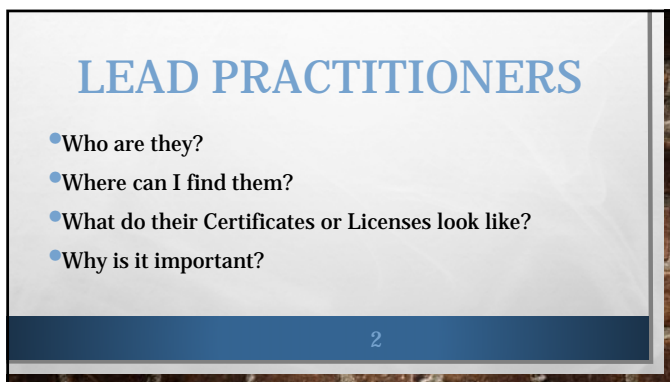
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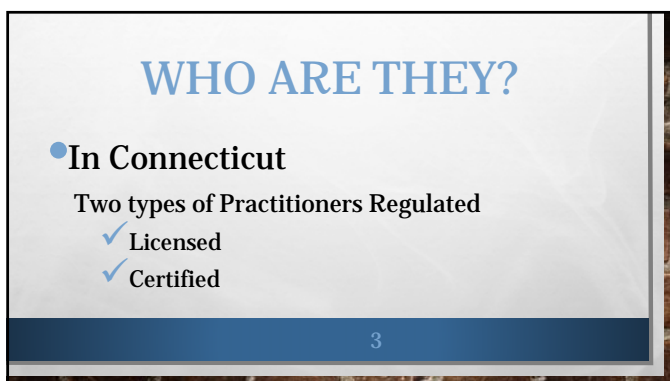
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REMEMBER.....

COMPANIES ARE **LICENSED**



HIRE **CERTIFIED** INDIVIDUALS

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## LICENSED LEAD PRACTITIONERS



- Licensed Lead Abatement Contractor
- Licensed Lead Consultant Contractor

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## Certified Lead Practitioners



- Certified Lead Abatement Worker
- Certified Lead Abatement Supervisor
- Certified Lead Inspector
- Certified Lead Inspector Risk Assessor
- Certified Lead Planner Project Designer

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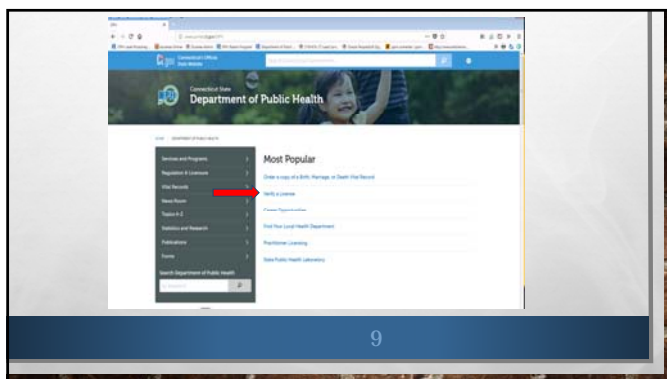
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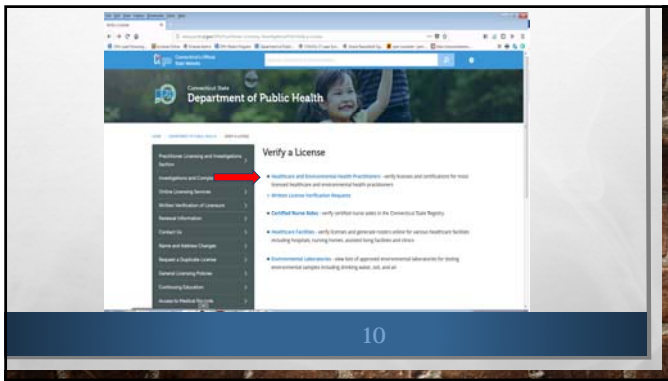
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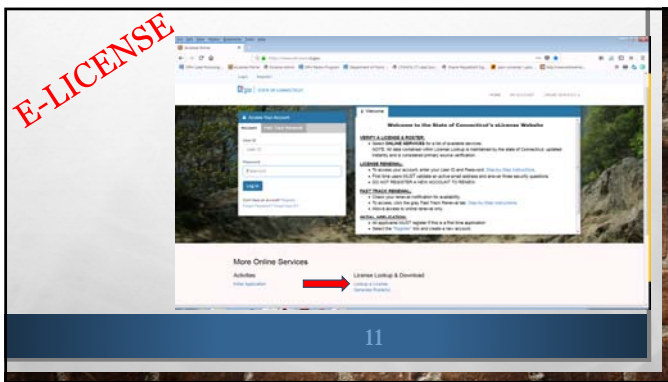
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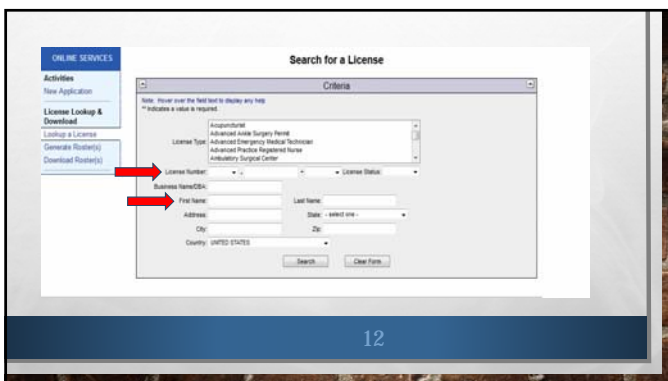
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## What if I can't find them by Name or License number?



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**Activities**  
New Application  
License Lookup & Download  
Lookup a License  
Generate Roster(s)  
Download Roster(s)

**Welcome to the State of Connecticut's eLicensing Website**  
An online renewal, verification and credential management system

All data contained in the License Lookup is maintained by the state of Connecticut, updated regularly and is considered primary source verification. You may obtain the online function by clicking "Lookup a License" under ONLINE SERVICES to view a full search screen.

Licensees may update a practitioner profile, renew their license and change their address through this service. To access the online system, please click "Login" in the top right corner of this screen and enter the User ID and Password provided on the renewal notice. First time users must also submit an active email address. To remove click "Create/Recover a Username" under Activities.

1. Licenses for physicians, surgeons, dentists and nurses issued by the Department of Public Health may be renewed online.  
Questions can be emailed to the [Department of Public Health](#).

1. All licenses, permits and registrations issued by the Department of Consumer Protection may be renewed online.  
Questions can be emailed to the [Department of Consumer Protection](#).

1. All licenses, permits and registrations issued by the State Board of Accountancy may be renewed online.  
Questions can be emailed to the [State Board of Accountancy](#).

Thank you.

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**Activities**  
New Application  
License Lookup & Download  
Lookup a License  
Generate Roster(s)  
Download Roster(s)

**AVAILABLE ROSTERS FOR DOWNLOAD**

1. Accountancy	Click the link to download roster
2. Architecture	Click the link to download roster
3. Audiology	Click the link to download roster
4. Automotive Engineering/Technical Technician	Click the link to download roster
5. Barbering	Click the link to download roster
6. Chiropractic	Click the link to download roster
7. Cosmetology	Click the link to download roster
8. Criminal Justice (Police, Fire, Sheriff, etc.)	Click the link to download roster
9. Dental	Click the link to download roster
10. Dietetics	Click the link to download roster
11. Engineering	Click the link to download roster
12. Firearm License	Click the link to download roster
13. Health Care	Click the link to download roster
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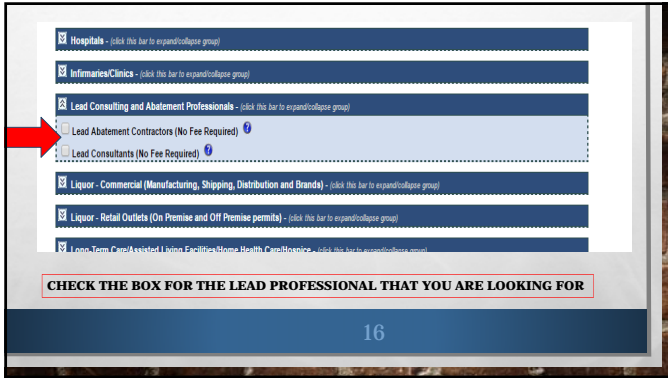
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☒ Hospitals - (click this bar to expand/collapse group)

☒ Infirmarys/Clinics - (click this bar to expand/collapse group)

☒ Lead Consulting and Abatement Professionals - (click this bar to expand/collapse group)

☒ Lead Abatement Contractors (No Fee Required)

☒ Lead Consultants (No Fee Required)

☒ Liquor - Commercial (Manufacturing, Shipping, Distribution and Brands) - (click this bar to expand/collapse group)

☒ Liquor - Retail Outlets (On Premise and Off Premise permits) - (click this bar to expand/collapse group)

☒ Long-Term Care/Assisted Living Facilities/Nursing Homes/Health Care Facilities - (click this bar to expand/collapse group)

**CHECK THE BOX FOR THE LEAD PROFESSIONAL THAT YOU ARE LOOKING FOR**

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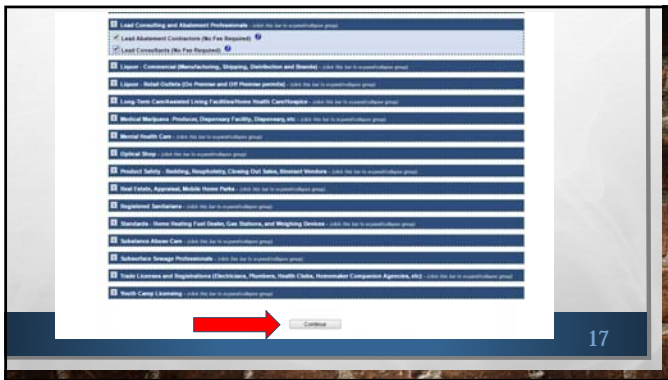
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☒ Lead Abatement Contractors (No Fee Required)

☒ Lead Consultants (No Fee Required)

☒ Liquor - Commercial (Manufacturing, Shipping, Distribution and Brands) - (click this bar to expand/collapse group)

☒ Liquor - Retail Outlets (On Premise and Off Premise permits) - (click this bar to expand/collapse group)

☒ Long-Term Care/Assisted Living Facilities/Nursing Homes/Health Care Facilities - (click this bar to expand/collapse group)

☒ Medical Marijuana - Production, Dispensing Facility, Dispensary, etc. - (click this bar to expand/collapse group)

☒ Medical Health Care - (click this bar to expand/collapse group)

☒ Medical Shop - (click this bar to expand/collapse group)

☒ Product Safety - Handling, Packaging, Cleaning Out Sales, Recalled Products - (click this bar to expand/collapse group)

☒ Real Estate, Regional, Mobile Home Parks - (click this bar to expand/collapse group)

☒ Registered Scaffolding - (click this bar to expand/collapse group)

☒ Scaffolding - Home Heating Fuel Stoves, Gas Stoves, and Heating Devices - (click this bar to expand/collapse group)

☒ Scaffolding - Other - (click this bar to expand/collapse group)

☒ Scaffolding - Other - (click this bar to expand/collapse group)

☒ State License and Registration (Electrician, Plumber, Health Care, Miscellaneous Engineering Agencies, etc.) - (click this bar to expand/collapse group)

☒ Youth Camp Licensing - (click this bar to expand/collapse group)

**Continue**

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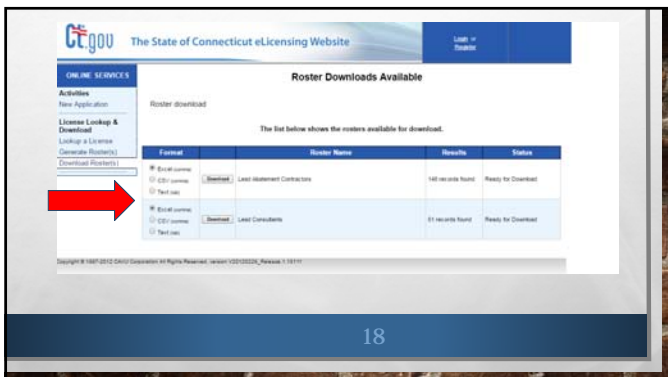
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**CT.gov** The State of Connecticut eLicensing Website

Log In / Register

**ONLINE SERVICES**

Activities

New Application

License Lookup & Download

License & License

Generate Roster(s)

Download Roster(s)

**Roster Downloads Available**

Roster download

The list below shows the rosters available for download.

Format	Roster Name	Results	Status
<input checked="" type="radio"/> Excel format	Lead Abatement Contractors	148 records found	Ready for Download
<input type="radio"/> CSV format	Lead Abatement Contractors	148 records found	Ready for Download
<input type="radio"/> Text file	Lead Abatement Contractors	148 records found	Ready for Download
<input checked="" type="radio"/> Excel format	Lead Consultants	21 records found	Ready for Download
<input type="radio"/> CSV format	Lead Consultants	21 records found	Ready for Download
<input type="radio"/> Text file	Lead Consultants	21 records found	Ready for Download

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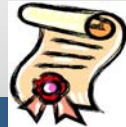


## THIS IS WHAT THE ROSTER LOOKS LIKE...

NAME	CITY	STATE	TELEPHONE	FAX #	EMAIL ADDRESS	WEB ADDRESS	LICENSE DESCRIPTION	LICENSE NUMBER
A. VETS DEMO LLC	VERNON ROCKVILLE	CT	(860) 875-8935	(860) 875-5900	ana@americavets.com		Lead Abatement Con	50.00234
A.S.I.S. CORP	WEST HAVEN	CT	(203) 932-2962				Lead Abatement Con	50.00025
AA-MIA INC	NEW HAVEN	CT	(203) 777-1300	(203) 777-0170	jon@aa-mia.com	www.aa-mia.com	Lead Abatement/Cor	52.002340
ABATEMENT PLUS LLC	WINDSOR	CT	(860) 242-7088	(860) 242-7088	thealy@gbtrino.com		Lead Abatement Con	50.00237
ABATEMENT UNLIMITED INC.	NEW YORK	NY	(212) 962-0925				Lead Abatement Con	50.00235
ABCON ENVIRONMENTAL	NEW HAVEN	CT	(203) 776-7583			www.abconenviro.com	Lead Abatement/Cor	52.00236
ABIDE INC.	EAST LONGMEADOW	MA	(413) 525-0644	(413) 525-0678	maria@abideinc.com	www.abideinc.com	Lead Abatement Con	50.00234
ABREU CONSTRUCTION LLC	FARMINGTON	CT	(203) 757-7002		sales@ctenviro.com	www.ctenviro.com	Lead Abatement Con	50.00230
ACA ENVIRONMENTAL SERVICES INC	YONKERS	NY	(914) 965-5829	(914) 965-7097	isa@acbestcorp.com	www.abbestcorp.com	Lead Abatement Con	50.00235
ACCURATE INSULATION LLC	BRIISTOL	CT	(860) 584-2546	(860) 584-2546			Lead Abatement Con	50.00230
ACQUITECH INSULATION & CONTRACTING LLC	LUDLOW	MA	(413) 592-5326				Lead Abatement Con	50.00230
ADVANCED IMPROVEMENTS LLC	MYSTIC	CT	(860) 536-7663	(860) 536-7674	support@advancedimprovementsllc.com		Lead Abatement Con	50.00237
AHL INC	WEST HAVEN	CT					Lead Abatement Con	50.00046

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## What do the License, Certification Cards and Training Course Certificates look like?

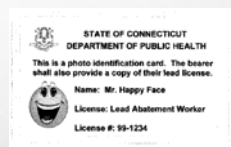


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## CT DPH ISSUED

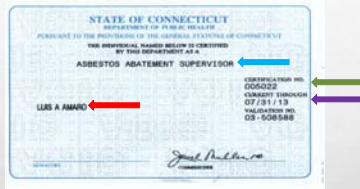
New Photo ID:

- Name of person
- Credential title
- License/Certificate number



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## CT DPH ISSUED



- Name of person, License/Certificate number, Expiration date, Credential title

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## EXAMPLE OF CERTIFICATE FROM TRAINING COURSE



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## IT IS IMPORTANT TO KNOW .....

- Lead Abatement Plan
  - ✓ Check Licenses for approval
  - ✓ Keep copies with the approved plan



**\*\*Must be Licensed or Certified to be in/on an active Lead Abatement site**

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## IT IS IMPORTANT TO KNOW .....

Inspection on Lead Abatement job site:

- Check **All** Licenses and Certifications

- ✓ Document:

- Companies License number and name
    - All individuals on site
      - i. Certification numbers
      - ii. Expiration date on their Training Course certificate

**\*\*Must be Licensed or Certified to be in/on an active Lead Abatement site**



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## WHO ELSE CAN DO LEAD ABATEMENT IN CT?

HOMEOWNERS – IN THEIR OWN HOMES

But is not encouraged!

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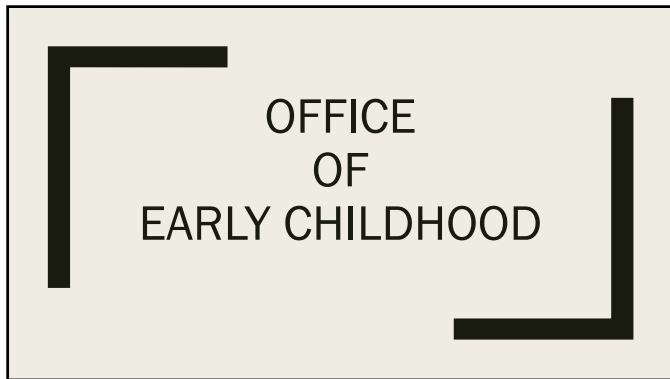
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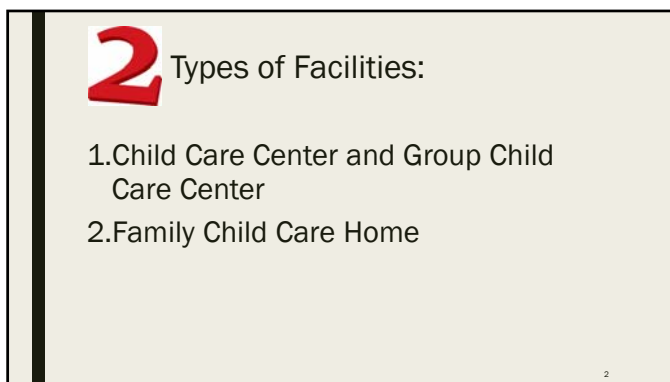
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## Child Care Center/Group Child Care Center

- New Center
  - Comprehensive lead inspection required (paint, dust, water, soil)
    - Prior to opening
    - Conducted in all approved areas (interior, exterior and common areas)
    - Completed by DPH Licensed Lead Consultant
  - Identifies where lead is
    - Intact = lead management plan
    - Defective = lead remediation plan



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## Child Care Center/Group Child Care Center

- Existing Center
  - Comprehensive lead inspection should be on file
    - Any missing components must be completed
      - Missed areas
      - New room(s)
    - Completed by DPH Licensed Lead Consultant
  - Identifies where lead is
    - Intact = lead management plan
    - Defective = lead remediation plan



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## Child Care Center/Group Child Care Center

- LHD's Role(s)
  - Review Lead Hazard Remediation Plan
    - Lists all area(s) where lead hazards were identified and how they will be remediated
    - Remediation must be completed by an EPA RRP Certified Firm
    - Must be approved by LHD before work can begin
  - Review Lead Management Plan
    - Lists all area(s) where intact lead is
      - Including areas that were remediated (paint and soil)
      - Must be approved by LHD at completion of remediation (if needed)

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## Child Care Center/Group Child Care Center

### ■ LHD's Role(s)

- Completion of work
  - Clearance dust wipes must be conducted (by a DPH licensed lead consult or LHD)
    - Confirm all clearance dust wipes pass
  - Perform a visual inspection confirming work is complete
  - Issue a letter of compliance
    - Provide a copy to Center Operator, DPH and OEC
  - Center Operator must retain copies of all information on file

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## FAMILY CHILD CARE HOME WITH A CHILD < 6 RESIDING

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## Family Child Care Home with a child < 6 residing



- OEC staff
  - If a dwelling built before 1978, take a paint chip sample
  - Paint chip sample sent to DPH Lab
  - Negative for lead
    - No further actions
  - Positive for lead
    - Triggers 19a-111 regulations (Non EBL case)
      - Abatement of all defective surfaces

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### Family Child Care Home with a child < 6 residing

- LHD's Role(s)
  - Conduct a comprehensive lead inspection
  - Issue order for lead abatement
  - Review Lead Abatement Plan
    - Abatement must be completed by a DPH Licensed Lead Abatement Contractor
    - Must be approved by LHD before work can begin
  - Review Lead Management Plan
    - Lists all area(s) where intact lead is
      - Including areas that were abated (paint and soil)
      - Must be approved by LHD at completion of abatement

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### Family Child Care Home with a child < 6 residing

- LHD's Role(s)
  - Completion of work
    - Clearance dust wipes must be conducted
      - Confirm all clearance dust wipes pass
    - Perform a visual inspection confirming work is complete
    - Issue a letter of compliance/post abatement inspection report
      - Provide a copy to Provider, DPH and OEC
    - Provider must retain copies of all information on file

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FAMILY CHILD CARE HOME  
WITH NO CHILD < 6 RESIDING

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## NEW RULE

October 2017

### New Rule

- If limited surface area
  - Less than 6 square feet of defective paint on the interior
  - Less than 20 square feet of defective paint on the exterior
    - Not required to test - **first warning**
  - Provider must develop a corrective action plan to stabilize defective painted surfaces
    - OEC must visually verify painted surfaces have been made intact
- Remember, no child < 6 resides

## MORE THAN LIMITED



Family Child Care Home  
with a no child < 6 residing

- OEC's Role(s)
  - If a dwelling built before 1978, has **more than limited surface area defective**
  - Take a paint chip sample
  - Paint chip sample sent to DPH Lab
  - Negative for lead
    - No further actions
  - Positive for lead
    - Must have a comprehensive lead inspection conducted by a DPH Licensed Lead Consultant
      - Conducted in all interior, exterior and common areas
      - Completed by DPH licensed lead consultant

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Family Child Care Home  
with a no child < 6 residing

- Provider must submit
  - Lead Hazard Remediation Plan to DPH
    - Lists all area(s) where lead hazards were identified and how they will be remediated
    - Remediation must be completed by an EPA RRP Certified Firm
    - Must be approved by DPH before work can begin
  - Lead Management Plan
    - Lists all area(s) where intact lead is
      - Including areas that were remediated (paint and soil)
      - Must be approved by DPH at completion of remediation

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Family Child Care Home  
with a no child < 6 residing

≥ 6

- DPH's Role(s)
  - Review Lead Remediation Plan
    - Remediation must be completed by an EPA RRP Certified Firm
    - Must be approved by DPH before work can begin
  - Review Lead Management Plan
    - Lists all area(s) where intact lead is
      - Including areas that were abated (paint and soil)
      - Must be approved by DPH at completion of remediation

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## Family Child Care Home with a no child < 6 residing



### ■ DPH's Role(s)

- Completion of work
  - DPH Licensed Lead Consultant
    - Conduct clearance dust wipes testing
    - Confirm all clearance dust wipes pass
    - Perform a visual inspection confirming work is complete
    - Issue a letter of compliance/post abatement inspection report
    - Provide a copy to Provider, DPH and OEC
  - Provider must retain copies of all information on file

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### Local health staff are responsible for:

- Allowing Child Care Providers with timely review and approval of lead abatement plans, lead remediation plans and lead management plans
- Conducting a post visual inspection when remediation and abatement are complete
- Conducting comprehensive lead inspections of Family Child Care Homes, when a child < 6 years of age resides and a lead based paint hazard has been identified by OEC
- Issuing post abatement inspection reports/letters of compliance for Family Child Care Homes, when a child < 6 years of age resides
- Issuing post remediation letters of compliance for Child Care Centers, Group Child Care Homes and Family Child Care Homes when no children < 6 years of age reside

### OEC Child Care Licensing Guidance

Child Care Licensing Type	A comprehensive lead inspection is required for initial licensure	Paint chip sampling will be conducted by OEC if any defective paint is present unless previously tested	Lead statement is required if lead hazards present	Lead remediation is required if lead hazards present	Lead statement plan is required	Lead management plan is required for intact lead surface	A post visual inspection and clearance dust wipes are required	A post remediation letter of compliance is required	A post statement inspection report/letter of compliance is required
Child Care Centers (2 or more children 000-0000-0000)	X	X		X		X	X	X	
Group Child Care Homes (1 to 12 children 000-0000-0000)	X	X		X		X	X	X	
Family Child Care Homes (Child < 6 residing)		X	X		X	X	X		X
Family Child Care Homes (no child < 6)		X		X		X	X	X	

Contact [kimberly.ploszaj@ct.gov](mailto:kimberly.ploszaj@ct.gov) if you need further assistance.

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## Contact:

- Kimberly Ploszaj
- Epidemiologist
- (860) 509-7959
- [kimberly.ploszaj@ct.gov](mailto:kimberly.ploszaj@ct.gov)



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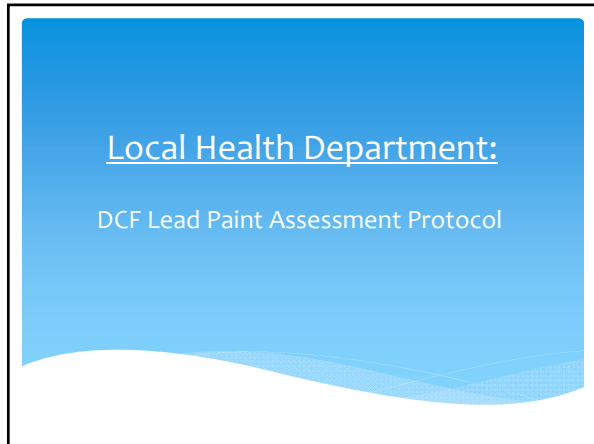
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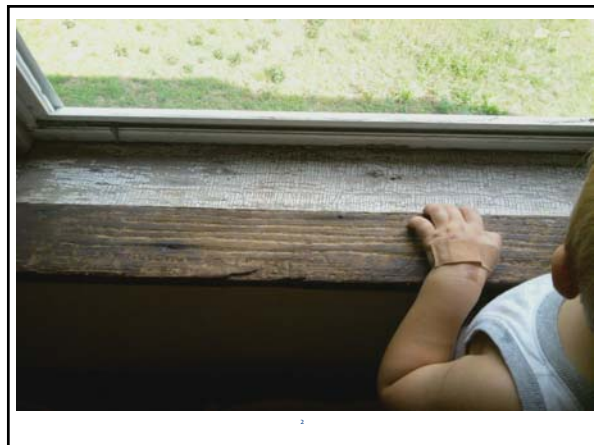
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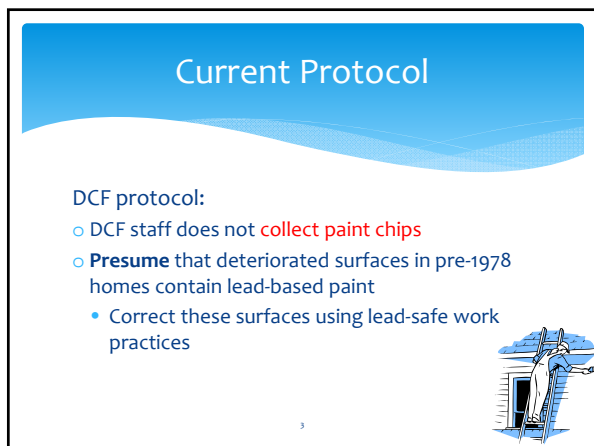
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## Current protocol

Application to renew or become a Foster Home

- Include LR&HHP developed documents:
  - Are There Potential Lead Hazards in My Home?
  - Next Steps Guidance for Deteriorated Paint for Foster Home Applicants

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## Are There Potential Lead Hazards in My Home?

Guidance for DCF Foster Home Applicants

- Does the DCF require a site visit?  
Yes, a site visit is performed when you apply to become a licensed foster care home or renew your license. During this site visit, the DCF worker will visually verify the paint condition.  
DCF wants to ensure the health and safety of every child that is placed in a foster home. In an effort to achieve this, your home will be need to have all deteriorated paint corrected prior to DCF licensure.
- You should have NO deteriorated painted surfaces!
- What is a deteriorated painted surface?  
A deteriorated painted surface is considered to be chipping, peeling, flaking, crumbling paint coming off of any painted surface of your home.
- My home has deteriorated painted surfaces, now what?  
If your home was built before 1978, prior to a site visit by a DCF worker, you should repair and repaint the deteriorated surfaces using lead-safe work practices.

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## Next Steps Guidance for Deteriorated Paint in Homes Built Prior to 1978 for Foster Home Applicants

Chipping, peeling paint on the interior or exterior parts of your home was identified by the DCF case worker **and your home was built prior to 1978**. Prior to becoming a licensed foster home the chipping peeling paint will need to be corrected. You will need to contact your local health department who will help you develop a **lead hazard remediation plan PRIOR** to work beginning. Beginning the work without the approval of the local health department will jeopardize your foster home application with DCF. DCF will NOT license your home without a letter of compliance from your local health department.

1. DCF will notify the local health department of the locations of the deteriorated painted surfaces on the interior and exterior of your home.
2. If you own the home and it is a single family dwelling, you can either correct the deteriorated painted surfaces yourself using lead safe work practices, or hire an EPA certified Renovation, Repair, and Painting (RRP) firm. Directions on how to find an RRP firm are attached.

**OR**

If you live in a rented dwelling (single family or multi-family), the property owner must be notified by DCF of the deteriorated paint. DCF will also notify your local health department. The property owner **must** either become an EPA certified RRP firm or hire one, in order to correct the deteriorated painted surfaces in a lead-safe manner

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## What are the next steps?

- DCF reviews and processes the foster home application
- Schedule site visit



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## What happens during the site visit?

- DCF performs site visit
  - Homes built before 1978
    - Verify paint condition
      - ✓ Intact surfaces
      - Continue with application process



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## What if there is defective paint?

- Defective paint
  - DCF will provide the applicant again with the “Next Steps Guidance for Deteriorated Paint for Foster Home Applicants.”
    - Single-family owner occupied
      - ✓ Property owner can correct deteriorated surfaces
      - ✓ Hire an EPA certified Renovation, Repair and Painting (RRP) Renovator



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## What if it is a rental property?

- o Rented Dwelling (single or multi-family)
  - Property owner and LHD must be notified by DCF
  - Property owner can become an EPA certified Renovator and Firm
  - Hire an EPA (RRP) Renovator



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## How is defective paint documented?

- o DCF will document defective paint using the "Identification of deteriorated painted surfaces" sheets



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Deteriorated paint checklist

	Wall	Floor	Base-board	Door	Door Casing/Lamb	Window	Window Sill	Window Component	Stair Tread	Stair Riser	Ceiling	Chair Rail	Other (List)
ROOM (differentiate between similar rooms with a description)													
Bedroom _____													
Bedroom _____													
Bedroom _____													
Living room _____													
Bathroom _____													
Bathroom _____													

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How does DCF notify Local Health Departments?

o DCF will complete “DCF Notification Letter to Local Health Department”

• Include Identification of deteriorated painted surfaces sheets



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DCF Notification Letter to Local Health Department  
(when deteriorated paint identified at property built prior to 1978 during initial site visit)

Date

Local health department name

Address

Town, CT Zip code

Dear Local Health Department,

On insert date, I conducted a site visit at insert address in response to a foster home application submitted to the Department of Children and Families. During the site visit, I identified areas with chipping/peeling paint. I provided the applicant, insert name of applicant with a fact sheet entitled, *Next Steps Guidance for Deteriorated Paint*. The circumstances of the home are as follows:

No child(ren) under the age of six years are in residence

☐ Single family owner-occupied dwelling; applicant is allowed to perform the work\*.

☐ Single or multifamily rented dwelling; an EPA certified RRP renovator must perform the work\*.

Child(ren) under the age of six years in residence

☐ Single family owner occupied dwelling; applicant is allowed to perform the work\*.

☐ Single or multifamily family rented dwelling; an EPA certified RRP renovator must perform the work\*.

\*Areas where work is performed must undergo clearance dust wipe testing.

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## What does the Local Health Department do?

- Provide guidance to property owner
  - Verify defective surfaces according to "Identification of Deteriorated Surfaces" sheet(s)
  - Assist property owner complete the Model Lead Hazard Remediation Plan (if necessary)
  - Approve Remediation Plan



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### MODEL LEAD HAZARD REMEDIATION PLAN

The objective of this model plan is to assist you in developing a lead hazard remediation plan that meets the criteria of the local health department. Overall, the plan must outline how the project will be conducted in a lead-safe manner. The entire plan (each section) must be completed. Please check off the boxes in each section as you complete the plan. Additionally, **PRIOR TO WORK BEING STARTED** this plan must be reviewed and approved by your local health department/district.

#### ☐ A. Background Information

Date Plan Submitted to the local health department: \_\_\_\_\_  
 Name of property owner: \_\_\_\_\_  
 Submitted by (if different than property owner): \_\_\_\_\_  
 Address of Property: \_\_\_\_\_ Apartment #/if applicable: \_\_\_\_\_  
 City: \_\_\_\_\_ State: CT Zip: \_\_\_\_\_

Signature: \_\_\_\_\_

#### Date of Project:

Estimated Start Date of Project: \_\_\_\_\_  
 Estimated Completion Date of Project: \_\_\_\_\_

Plan prepared by: ☐ Property owner  
☐ EPA RRP Certified Firm  
☐ Other: \_\_\_\_\_

#### ☐ B. Who will conduct the work?

Property Owner: ☐ EPA Certified RRP Firm: ☐  
 Note: As of April 22, 2010, US Environmental Protection Agency (EPA) Lead Renovation, Repair and Painting (RRP) Rule requires that any contractor, maintenance staff, or rental property owner (do-it-yourselfer) who disturbs more than six square feet of lead paint, replaces windows, or does demolition while working in a pre-1978 home must be Lead-Safe Certified (RRP certified firm) and trained in lead safe work practices.

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## After the work has been completed...

LHD can take clearance dust wipes

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Refer property owner to a DPH Licensed Lead Consultant (see "Who to Hire for Clearance Sampling")



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To find a Connecticut Lead Consulting Professional

Go to <https://www.elicense.ct.gov/Lookup/GenerateRoster.aspx>

Scroll down and click on **Lead Consulting and Abatement Professionals**

☒ Home Improvement Contractors/Inspectors  
☒ **Lead Consulting and Abatement Professionals**  
☐ Liquor - Commercial (Manufacturing, Shipping, Distribution and Brands)

Check the box next to **Lead Consultants**

☒ Lead Consulting and Abatement Professionals  
☐ Lead Abatement Contractors (No Fee Required)  
☒ **Lead Consultants (No Fee Required)**

Scroll down to and click on Continue. You can download to Excel, CSV or Text files.

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## What happens after samples have been tested?

- Receive acceptable clearance sample results
- LHD conducts a visual assessment
- LHD completes and mails compliance letter template to DCF



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Letter of Compliance Template

Insert Date

Insert Address

Re: Dust wipe sampling compliance for licensure of a foster home at [insert address of applicant]

Dear [insert DCF work's name],

A visual assessment of the above noted property was conducted by the [insert name of the LHD] on [insert date(s)]. The assessment found that the surfaces you identified to be deteriorated are now intact and have been corrected according to the approved lead hazard remediation plan. The final dust wipe results met the clearance criteria for re-occupancy as described in the Connecticut Department of Public Health, Lead Poisoning Prevention and Control Regulations. A copy of the test results is attached.

Should you have any questions please contact me at [insert office telephone #].

Sincerely,

[insert name of inspector]

[DPH Link to Foster Home Documents](#)

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## Final Steps..

DCF receives compliance letter from LHD

Continue with DCF Application Process



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## HUD LEAD SAFE HOUSING RULE AMENDMENT




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### LEAD SAFE HOUSING RULE AMENDMENT

- January 2017 - HUD modified the Lead Safe Housing Rule (LSHR) to enhance the protections from lead hazards that the current regulations provide
- Amendment compliance by July 13, 2017




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### KEY CHANGES

1. Revising HUD's definition of elevated blood lead level (EBLL)
2. Enhancing the level of inspection protocol for a unit with a child with an EBLL
3. Following state or local government requirements that have established more protective standards




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## 1. REVISING HUD'S DEFINITION OF EBLL

- In 2012, the CDC lowered its reference value for lead in the blood of children under age six to five micrograms per deciliter
- Consistent with CDC's guidance, HUD is now using the reference value of five micrograms per deciliter to identify children with an EBLL




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## 2. UPDATED INSPECTION PROTOCOL

- The LSHR amendment requires that an environmental inspection occur in a unit:
  - receiving tenant based rental assistance, such as Section 8
  - where a child under the age of six resides
    - with an EBLL greater than or equal to five micrograms of per deciliter




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## 2. UPDATED INSPECTION PROTOCOL

- HUD's environmental inspection includes:
  - a lead risk assessment
  - the completion of a questionnaire
    - Table 16.2 Guidelines for Questions to Ask Regarding a Child's Environmental History, as advised in the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition)*




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### 3. FOLLOWING CT STANDARDS

- There are several key differences in definitions and response requirements between HUD and Connecticut
- HUD requires that, if a state or local government establishes **more protective standards**, that housing authorities follow those standards




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### WHAT'S DIFFERENT IN CONNECTICUT?




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### WHAT'S DIFFERENT IN CT?



- If **defective** lead-based paint surfaces or **bare soil areas** with hazardous levels of lead are identified during a HUD risk assessment
  - **CT lead regulations are triggered!**
- This **requires a comprehensive test** of the dwelling unit in which the child resides




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## AND....

- This also **requires that any other dwelling units** (e.g. other apartments) within the same building, where a child less than 6 resides, have a comprehensive inspection
- CT regulations are more **strict**
  - **HUD requires under this amendment that if a state has a more strict approach, that the PHAs must follow that procedure**




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## PHAS AND LEAD INSPECTIONS

Best practice approach:

- PHAs, housing firms or towns can develop a relationship with the local health departments and hire them to complete the required lead inspection (if resources are available)

**OR**

- PHAs, housing firms or towns can hire a DPH licensed lead consultant




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## RESOURCES AND TOOLS




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## CIRCULAR LETTER 2018-08



[https://portal.ct.gov/DPH/Environmental-Health/Lead-Poisoning-Prevention-and-Control/-/media/Departments-and-Agencies/DPH/dph/environmental\\_health/lead/circular\\_letters/2018/201808-DPHs-Response-to-the-LSHR-Amendment.pdf?la=en](https://portal.ct.gov/DPH/Environmental-Health/Lead-Poisoning-Prevention-and-Control/-/media/Departments-and-Agencies/DPH/dph/environmental_health/lead/circular_letters/2018/201808-DPHs-Response-to-the-LSHR-Amendment.pdf?la=en)

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## TRAINING MANUAL



- DPH developed a training manual for public housing authorities (PHAs)
- DPH has co-presented, with HUD, at several training sessions for PHAs

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## THE GOALS

- To ensure that PHAs are following the more strict requirements in CT
- To limit an increase workload for LHDs
  - Once 19a-111 regulations are triggered, LHD must respond
  - LHDs are **not required to perform** the lead inspections

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## DATA SHARING




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## DATA SHARING

- Data may only be obtained from DPH, **not from a local health department**
- Data may only be obtained if PHA has a confidentiality/data sharing agreement with DPH
- DPH reports any matched EBLL data to the PHA quarterly

CONFIDENTIAL




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## DATA MATCHING




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## DATA SHARING AGREEMENTS

- To date, we've executed confidentiality/data sharing agreements with 12 PHAs (3 new PHAs will report during this upcoming quarter), 1 housing firm and the Department of Housing
  - PHAs were selected based on the amount of housing choice vouchers they administer and the town having the availability of HUD funding for property owners
- Due to staffing limitations, DPH was not able to move forward with executing confidentiality/data sharing agreements with all PHAs statewide
  - DPH will continue to work with HUD's Region 1 Office in hopes to obtain a 100% of the housing choice voucher address data
- The existing confidentiality/data sharing agreements capture approximately 79.7% of all of the housing choice vouchers in CT

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## TOTAL MATCHES/EBLLS BY QUARTER

Timeframe	Total Number of Lead Confirmed EBLL of $\geq 5$ $\mu\text{g}/\text{dL}$	Total Number of Confirmed Data Matches	Percentage of Children Residing in Subsidized Housing with a Confirmed EBLL of $\geq 5$ $\mu\text{g}/\text{dL}$
7/1/17 to 6/30/18	1541	44 (unique children)	49/1541 = 2.9%

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## QUESTIONS



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**CONTACT INFO:**

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Epidemiologist  
State of CT Department of Public Health  
Lead, Radon and Healthy Homes Program  
(860) 509-7959  
kimberly.ploszaj@ct.gov



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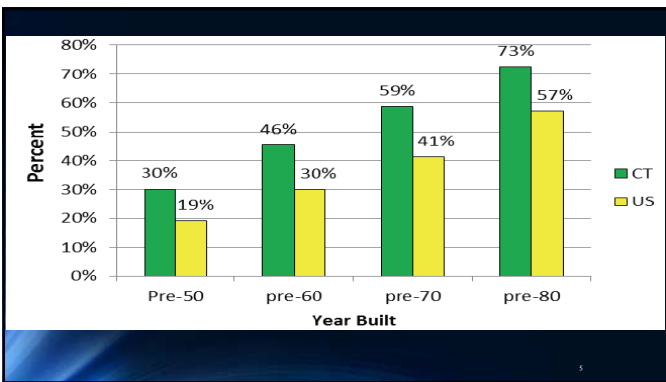
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## Lead Poisoning Prevention and Control Regulations 19a-111-1 through 19a-111-11

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### 19a-111-1 through 19a-111-11

- Definitions
- Applicability of regulations
- Regulatory response protocols
- Notification
- Abatement approval
- Abatement of lead
- Methods of abatement
- Time periods for compliance
- Post abatement inspections
- Worker protection
- Occupant protection

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## Containment

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Containment

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## Liquid Encapsulant

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- Would this product look acceptable to you?
- Yes? No? Maybe?
- How do you know?

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## Liquid Encapsulants

- All liquid encapsulants must be approved by DPH
- Although other products are sold, and even approved by HUD, they **MUST** be approved by DPH
- All approved encapsulants are listed on the "Lead, Radon and Healthy Homes Program Registry of Authorized Encapsulant Products"

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# Reporting

## Failure to Report

### PART I- EXECUTIVE SUMMARY

A combined Lead-Based Paint Inspection and Risk Assessment was performed at [redacted]. The combined Lead-Based Paint Inspection and Risk Assessment was performed for the Lead Action for Medicaid Primary Prevention (LAMPP) Program on September 10, 2014. A historic review letter has been sent to the Connecticut Commission on Culture and Tourism and the results are pending. The site building consists of a single-family residential building.

Three (3) children under six (6) years old resided in the dwelling at the time of inspection. The State of Connecticut Lead Poisoning Prevention and Control Regulations (19a-111-1 through 19a-111-11) along with U.S. Department of Housing and Urban Development (HUD) and U.S. Environmental Protection Agency (USEPA) regulations apply to the site building. None of the children had an Elevated Blood-Lead Level (EBLL) at the time of inspection; however, two (2) of the children had levels that at or above the level of concern, which is 5 µg/dl set forth by the United States Centers for Disease Control and Prevention (CDC).

### A. Were Lead-Based Surfaces Identified? (Check One) ☒ Yes ☐ No

If yes, place an X in the tables below. (Information in tables may not represent all identified lead-based components and surfaces found during inspection.)

EXTERIOR Lead-Based Surfaces	Foundation	Siding &/or Trim	Stairs &/or Stair Components	Porch &/or Stair Components	Doors &/or Trim	Windows &/or Trim	Garage &/or Stair Components
Deteriorated	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Intact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INTERIOR Lead-Based Surfaces	Floors	Baseboards	Walls	Ceilings	Stairs &/or Stair Components	Doors &/or Trim	Closets/ Cabinet Components
Deteriorated	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(X = positive location)

### B. Indicate Peak Values of Sampled Media:

(Check All That Apply)

Was dust tested for lead? ☒ Yes ☐ No

Was soil tested for lead? ☐ Yes ☒ No

No bare soil ☒ Ground from

Was drinking water tested for lead? ☐ Yes ☒ No

Lead Hazard Locations	Floors	Window Sills	Window Walls	Soil	Water	Paint (XRF)	Paint Chip
(Enter highest result for each)	1,000 mg/m <sup>2</sup>	1,700 mg/m <sup>2</sup>	n/a	n/a	n/a	<0.0 mg/m <sup>2</sup>	n/a

⚠

⚡ If yes was checked for any of the questions to the left complete the table above.

### C. Were any rooms, areas or components inaccessible during inspection? (Check One) ☐ Yes ☒ No

If yes, list the inaccessible locations:

Per section 19a-111-4(a) and 19a-111-2(c) of the Lead Poisoning Prevention and Control Regulations:

A lead abatement plan is required for this property ☒ Yes ☐ No

A lead management plan is required for this property ☒ Yes ☐ No

## Failure to Report

- Toxic levels of lead were found that require lead abatement
- CGS 20-478, require licensed lead consultants to comply with the 19a-111 regulations
- The company violated the regulatory requirement that when an inspector "finds a toxic level of lead requiring abatement, the inspector shall report this to the owner, local director of health, and the commissioner"

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## EPA Renovation, Repair and Painting Rule (RRP)




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## What is the RRP Rule?

The RRP Rule:

- establishes requirements for companies and individuals performing renovations
- affects contractors, property managers and others who disturb painted surfaces
- applies to work in houses, apartments and child-occupied facilities built before 1978
- includes pre-renovation education requirements

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### When Does the RRP Rule Apply?

- Anyone who is paid to perform work that disturbs more than 6 square feet of paint on the interior or 20 square feet on the exterior, of a house or child-occupied facility, built before 1978 must be certified
- Rent = **COMPENSATION**




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### What activities are covered?

- Remodeling and repair
- Maintenance
- Electrical work
- Plumbing
- Painting preparation
- Carpentry
- Window replacement




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### How to Become Certified

#### Companies = CERTIFIED FIRM

- Register on EPA's website
- Costs \$300
- Valid for 5 years

#### Individuals = CERTIFIED RENOVATOR

- Take an 8 hour class
- Costs vary between \$150-\$300
- Valid for 5 years




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# Complaints



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## Mechanical Sanding and Dry Scraping

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## Mechanical Sanding and Dry Scraping

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## Mechanical Sanding and Dry Scraping

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## Mechanical Sanding and Dry Scraping

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## Uncontained Debris

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## What Authority does a LHD have?

### REGULATIONS

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### Regulations

The following regulations may be used to order correction of a nuisance:

- 19a-206
- 19-13-B1
- 19-13-B2
- 47a-52 (tenement housing – nuisance)
- 47a-54f (tenement housing – paint nuisance)



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## Resources




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### Helpful Websites:

- [www.ct.gov/dph](http://www.ct.gov/dph)
- [www.epa.gov](http://www.epa.gov)
- [www.osha.gov](http://www.osha.gov)

### CT HUD Funded Programs

Name of Program	Contact(s)	Town(s) Covered
City of Bridgeport	Audrey Gaines ~ 203 376-7231	Bridgeport
CT Children's Healthy Homes Program	Chris Corcoran ~ 860 837-6242	Bridgeport New Haven Danbury Norwalk East Hartford Stamford East Haven Torrington Enfield Waterbury Hartford West Haven Manchester Winchester Meriden Windham New Britain
Naugatuck Valley Health District (CT Children's Healthy Homes Program)	Carol Slajda ~ 203 881-3255	Ansonia Naugatuck Beacon Falls Seymour Dorby Shelton
City of New Britain (CT Children's Healthy Homes Program)	Chris Corcoran ~ 860 837-6242	New Britain
City of Hartford	Arlene Robertson ~ 860 757-4773 Jenrika Figueroa ~ 860 757-4720	Hartford
City of New Haven	Paul Kowalkski ~ 203 946-8273 Jennifer Sanjurjo ~ 203 946-7420	New Haven
City of Norwich	Wayne Shankley ~ 860 823-3770	Norwich
City of New London	Tom Bombia ~ 860 437-4346	New London
City of Waterbury	Francis Ford ~ 203 376-6780 Richard Lee ~ 203 346-3903	Waterbury

**LEAD POISONING  
IS 100%  
PREVENTABLE**

