

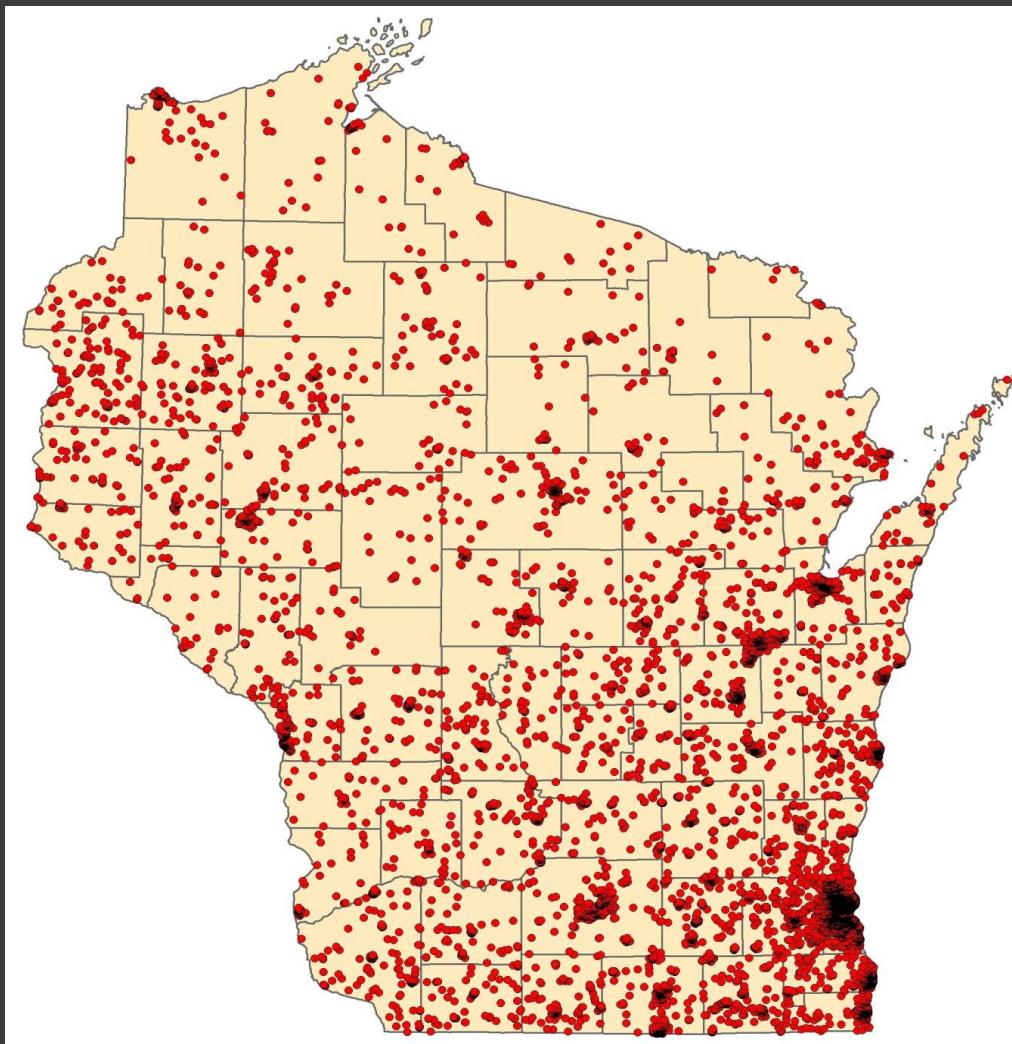


NARI JANUARY 2014

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Lead & Asbestos Section

Protecting Children from Lead Poisoning with Wisconsin's Lead-Safe Renovation Rule

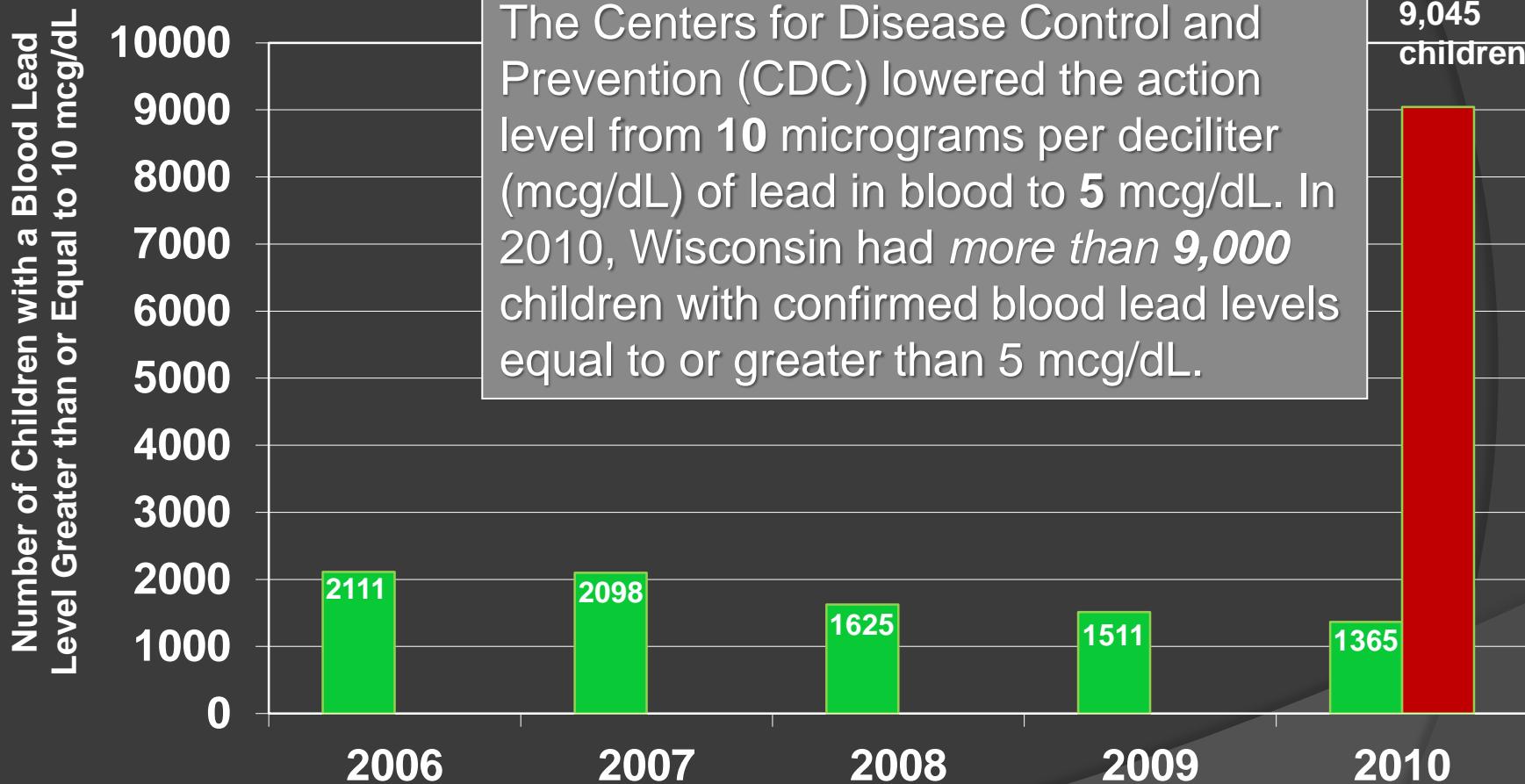
Lead Poisoning is a Statewide Problem



Each red dot represents an address related to a lead-poisoned child, 1996 - to present

More than 47,000 children!

Number of Wisconsin Children Under Age 6 with Lead Poisoning, 2006 - 2010



Preventing Lead Poisoning is Cost Effective

- Based on a review of the scientific literature, the estimated *minimum* savings of preventing lead poisoning is *\$45,608 per child* from additional lifetime earnings and avoided healthcare, special education, and justice system costs.
- This translates to over two billion dollars saved if those 47,000 poisoned Wisconsin children had been protected from lead exposure in the first place.

Children still need protection from lead exposures now and in the future.

The Lead-Safe Renovation Rule

Ensures lead-safe renovations in pre-1978 housing and child-occupied facilities by requiring:

- Training and certification of renovators
- Pre-renovation education for and occupants
- Use of lead-safe work practices
- Final cleaning verification



Wisconsin RRP Program by the Numbers

Current numbers vs. 2011

- Accredited RRP training providers: **22**
 - Down from 26
 - Over 15,500 have completed the 1-day RRP training course
- Certified Renovators: **7,598***
 - Down from over 8,800
- Certified Companies: **4,371**
 - Down from over 5,500

* Includes certified Lead-Safe Renovators, Lead Abatement Supervisors and Lead Abatement Workers qualified to conduct lead-safe renovation

Certified Renovator Responsibilities

- Provide on-the-job training (OJT) in lead-safe work to uncertified workers
- Be at jobsite during containment set-up and final clean-up
- Supervise work & ensure ongoing containment of dust & debris
- Be available by phone to return promptly
- *Personally* conduct final cleaning verification
- Have certification card when at a job site
- Prepare renovation records

Required Pre-Renovation Education



- Before work starts, the renovator must provide the *Renovate Right* pamphlet to:
 - Owners and occupants
 - Parents of children in child-occupied facilities
- Obtain a signature of receipt
- Keep records for 3 years

Recognized Lead Test Kits

The Department of Health Services recognizes **3M LeadCheck** and **ESCA Tech D-Lead** test kits for testing for the presence of lead on painted surfaces in pre-1978 housing and child-occupied facilities.



Using a Paint Test Kit in Wisconsin

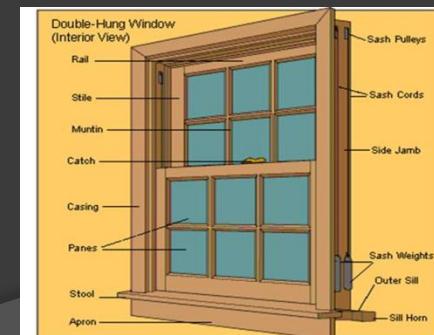
- Only a certified Lead-Safe Renovator may use a lead test kit
- Paint testing may **only** be performed at the request of the property owner or person contracting for your services
- The test kits are limited to use on paint or other coatings on wood, ferrous metal, drywall or plaster substrates

Using a Paint Test Kit in Wisconsin

- The certified Lead-Safe Renovator must follow the manufacturer's instructions for using the recognized test kit.
- Each distinct component and surface to be disturbed must be tested separately with unused testing materials.
- Test only the components that will be disturbed during the renovation project.

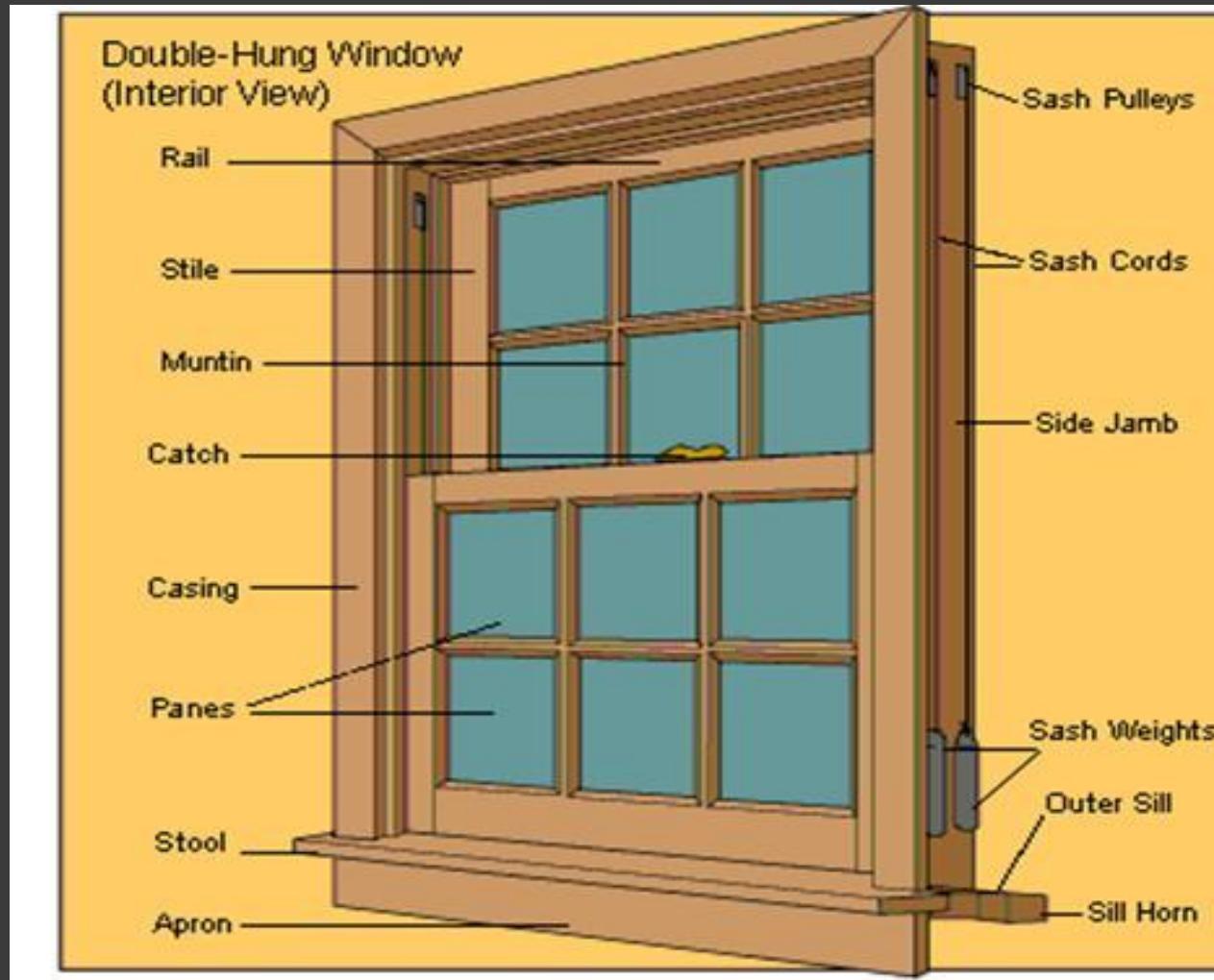
Using a Paint Test Kit in Wisconsin

- The Lead-Safe Renovator must keep a record of:
 - The manufacturer and model of each test kit used
 - Verification that the test kit used is recognized by the department
 - A description of each component tested (including the specific location)
 - The result for each location tested



Window System Components

Which window components require separate testing?



Using a Paint Test Kit in Wisconsin

- A written lead test kit report must be provided to the person contracting for the work within 10 days of completing the renovation project
- A Test Kit Documentation Form may be downloaded from the Wisconsin Lead Safe website at:

www.dhs.wi.gov/lead/RenovatorRule/TestKit.htm



LEAD-SAFE RENOVATION ENFORCEMENT

Enforcement Options

Civil Enforcement Actions may include:

1. Letter of Inquiry / Warning Letter
2. NON
3. NON with Order (plan of correction required)
4. NON with Civil Forfeiture (monetary penalty)
5. Suspension/Summary Suspension
6. Revocation
7. Denial
 - Multiple enforcement actions may be taken
 - Enforcement Conference may be used

Enforcement Policy

Year One: April 22, 2010 - April 22, 2011

- Provided onsite compliance assistance to untrained and uncertified contractors
- Ordered untrained or uncertified contractors to get training and apply for certification within 60 days of Notice of Noncompliance (NON)
- Sent warning letters or NONs with a plan of correction to certified contractors
- Few civil forfeitures (\$ penalties)

Enforcement Policy

Year Two and forward: Beginning April 22, 2011, the enforcement policy went into full effect, including

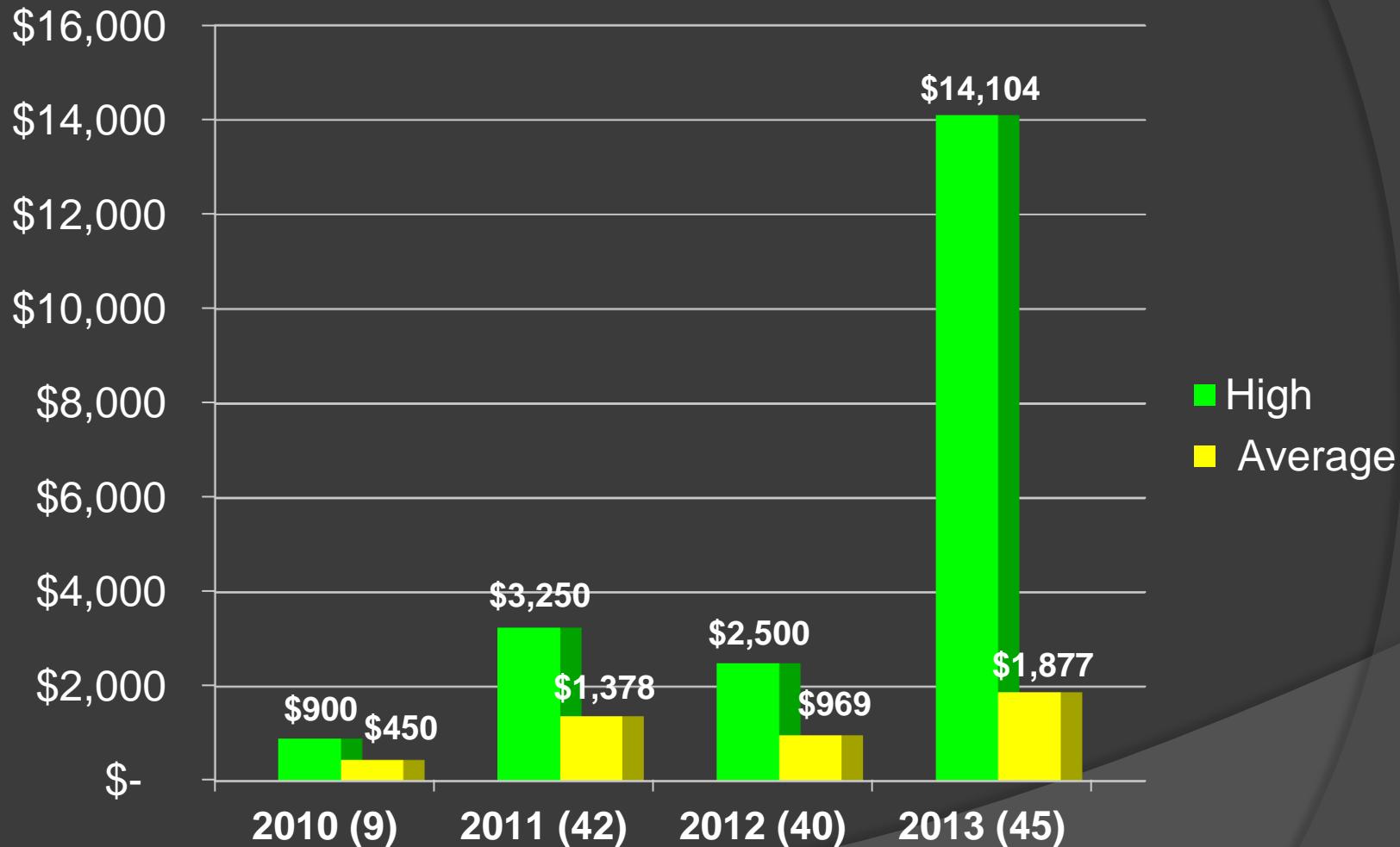
- NONs requiring plans of correction
- Use of a standardized penalty worksheet to determine appropriate civil forfeitures
- Civil forfeitures have ranged from \$100 to \$14,104
- Most NONs involve multiple violations and the largest tend to involve larger companies and multiple projects

Enforcements to date

April 2010 – Present

- Conducted 668 lead inspections
- 81 enforcement actions initiated – over $\frac{1}{2}$ included \$\$ penalties
- Conducted 235 renovation inspections
- 167 renovation enforcement actions initiated – over $\frac{1}{2}$ included \$\$ penalties

Enforcement Penalties



Most Common Violations

- Contractor not trained or certified (company and/or individual)
- Failure to distribute Renovate Right pamphlet
- Uncontained pressure washing
- Power sanding or grinding with no HEPA* vacuum attachment
- No containment, failure to maintain containment, or distribution of dust and debris
- Improper waste handling
- Failure to clean

* HEPA = High Efficiency Particulate Air, a type of air filter for removing very fine particles.

Mineral Point Complaint

- Complaint from tenant
 - Landlord scraped and power-sanded exterior of a 4-unit rental property
 - Failed to use plastic to contain dust and debris
 - Failed to conduct daily cleaning on the exterior
 - Failed to distribute the “Renovate Right” pamphlet

Note: Children under age 6 resided at the property.



















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Enforcement Response

- Coordinated with Iowa County Health Department to monitor cleanup of the property
- Required landlord to distribute “Renovate Right” to tenants
- Landlord cleaned up property and replaced bare soil with new soil and added gravel to the driveway/parking area

Enforcement Response

- Forfeiture based on these violations:
 - No certified Lead-Safe Renovator
 - Uncertified company conducting renovation
 - Failure to provide Renovate Right pamphlet
 - Failure to contain dust and debris (exterior)
 - Use of prohibited work practice (pressure washing)
 - Failure to perform daily cleanup (exterior)
 - Failure to perform post-renovation visual inspection
 - Total Forfeitures: **\$ 2,187**

La Crosse Complaint

Citizen complaint that contractor was removing painted siding without containment that also may contain asbestos







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Enforcement Response

- Required contractor to hire a certified asbestos abatement contractor to remove remainder of siding and dispose of material properly.

Enforcement Response

- Forfeitures based on these violations:
 - No certified Lead-Safe Renovator
 - Uncertified company conducting renovation
 - Failure to provide Renovate Right pamphlet
 - Failure to contain dust and debris (exterior)
 - Failure to manage waste
 - Failure to perform daily cleaning (exterior)
 - Forfeitures totaled: **\$1,550**

Additional Enforcement-Asbestos

- Forfeitures based on these violations:
 - Uncertified individuals conducting abatement
 - Uncertified company conducting abatement
 - No certified supervisor on site
 - No occupant protection plan or project log
 - Failure to notify of an asbestos project
 - Forfeitures totaled: \$800

Asbestos In Construction

Asbestos is a mineral that is mined



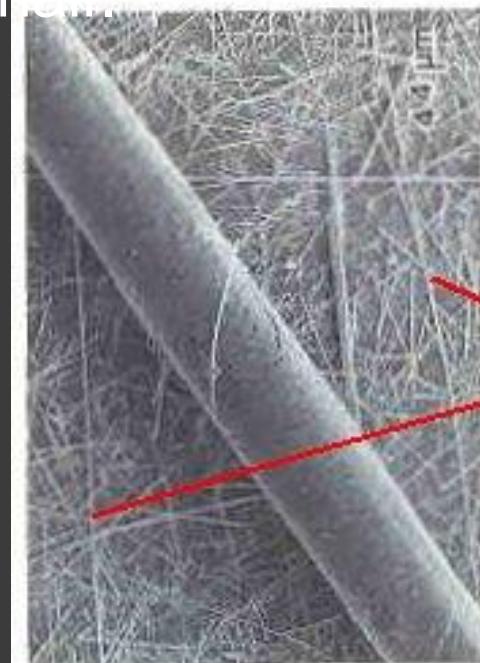
Most asbestos mines are in Quebec, Canada and the Russian Urals, accounting for $\frac{3}{4}$ of the world production of chrysotile asbestos.

What is asbestos?

Asbestos is made of *fibers*.

Asbestos fibers are 1,200 times *smaller* than a human

hair...



Amosite asbestos fibers seen under electron microscope appear as tiny, fine, straight images.

Human Hair



Over **3500** products are estimated to contain asbestos. Material is considered to be asbestos containing material, or ACM, when it contains more than 1% asbestos.

Why use asbestos?

Asbestos Properties:

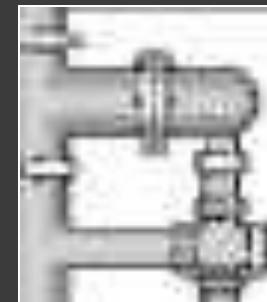
- Tensile/mechanical strength
- Incombustible – will not burn
- Corrosion/chemical resistance
- Electrical, heat & sound insulator
- Friction resistance
- Bacteria resistance
- Drying characteristics



Where is asbestos used?

Three categories of asbestos containing building material uses:

- **Thermal System Insulation**
- **Surfacing**
- **Miscellaneous**



Types of asbestos products

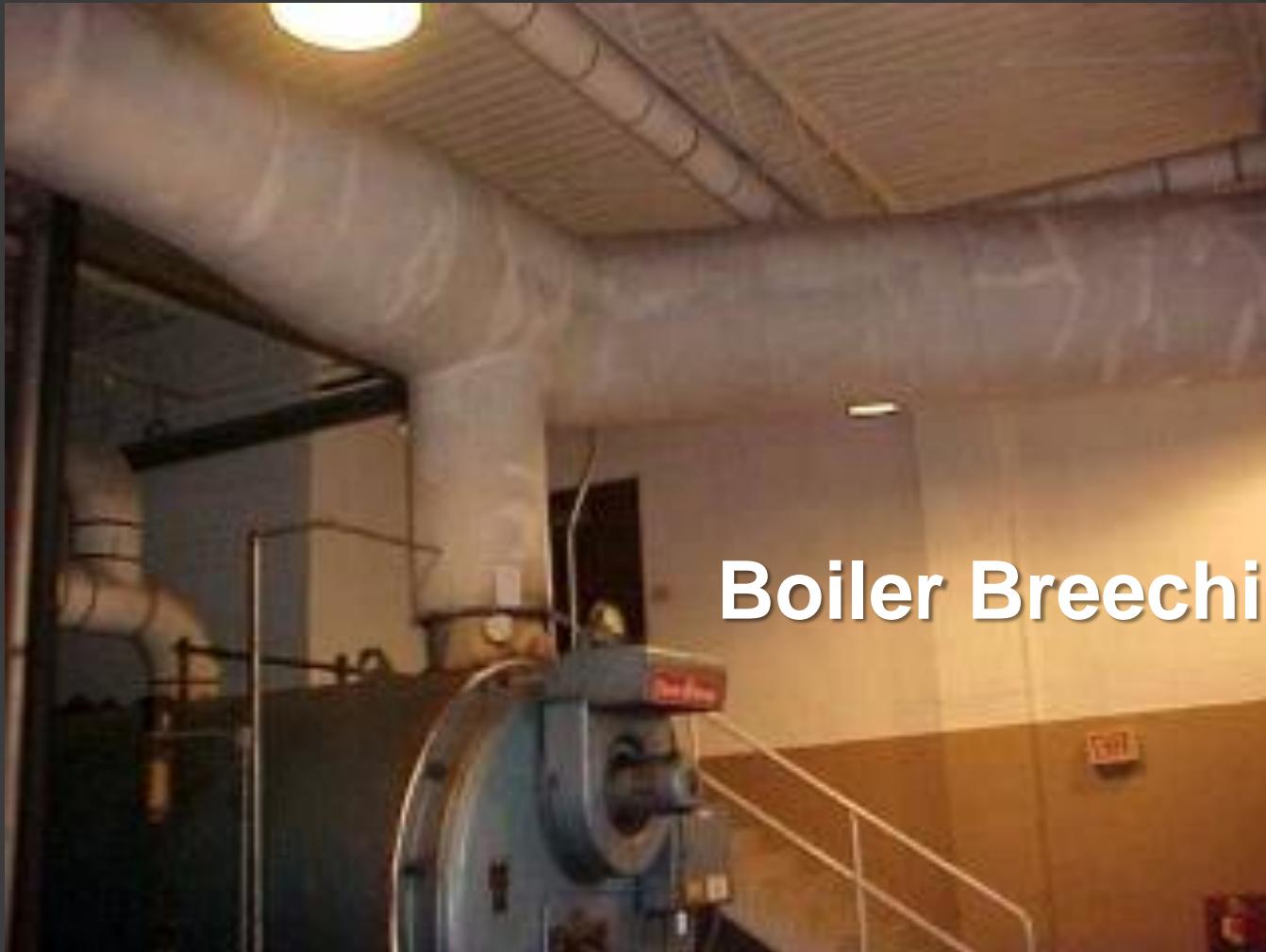
Thermal System Insulation (TSI)

Pipe, boiler and duct insulation

- Pipe lagging or “mag”
- Cements and “muds” for pipe elbows
- Block, batt and blanket insulation
- Aircell pipe wrap
- Paper duct wrap
- Gaskets and ropes



TSI



Boiler Breeching

TSI



Pipe Elbows

Mechanical Insulation on pipe elbows in ceiling space:

Asbestos was typically mixed with Portland Cement to form hard elbow insulation.

TSI

Asbestos Papers



Duct Insulation



TSI

Asbestos tape

ASBESTOS CLOTH
AT EXHAUST DUCT &
FAN CONNECTION
(HERRIN LAB)



SEAM TAPE ON
FURNACE DUCT
(BOAT WORKS,
HOPKINS MARINE
STATION)

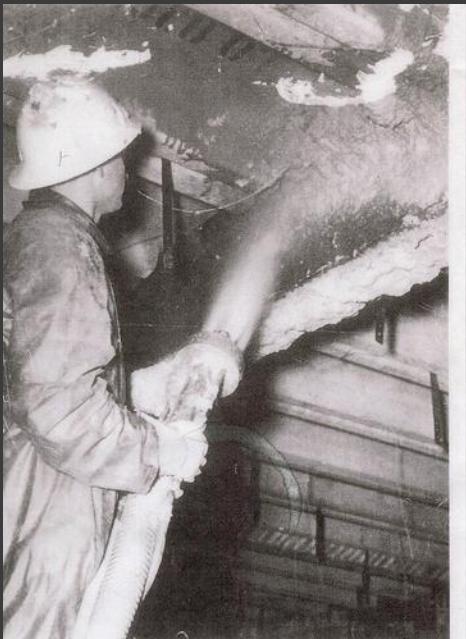


Types of asbestos products

Surfacing Materials

Sprayed-on applications

- Fireproofing
- Architectural decoration



Trowelled-on applications

- Acoustical plasters



Surfacing Materials

Asbestos is often found on ceilings as a sprayed-on material. Generally, this material is friable. If it is encapsulated or has a hard coating, it does not represent a hazard unless disturbed.



Surfacing Materials

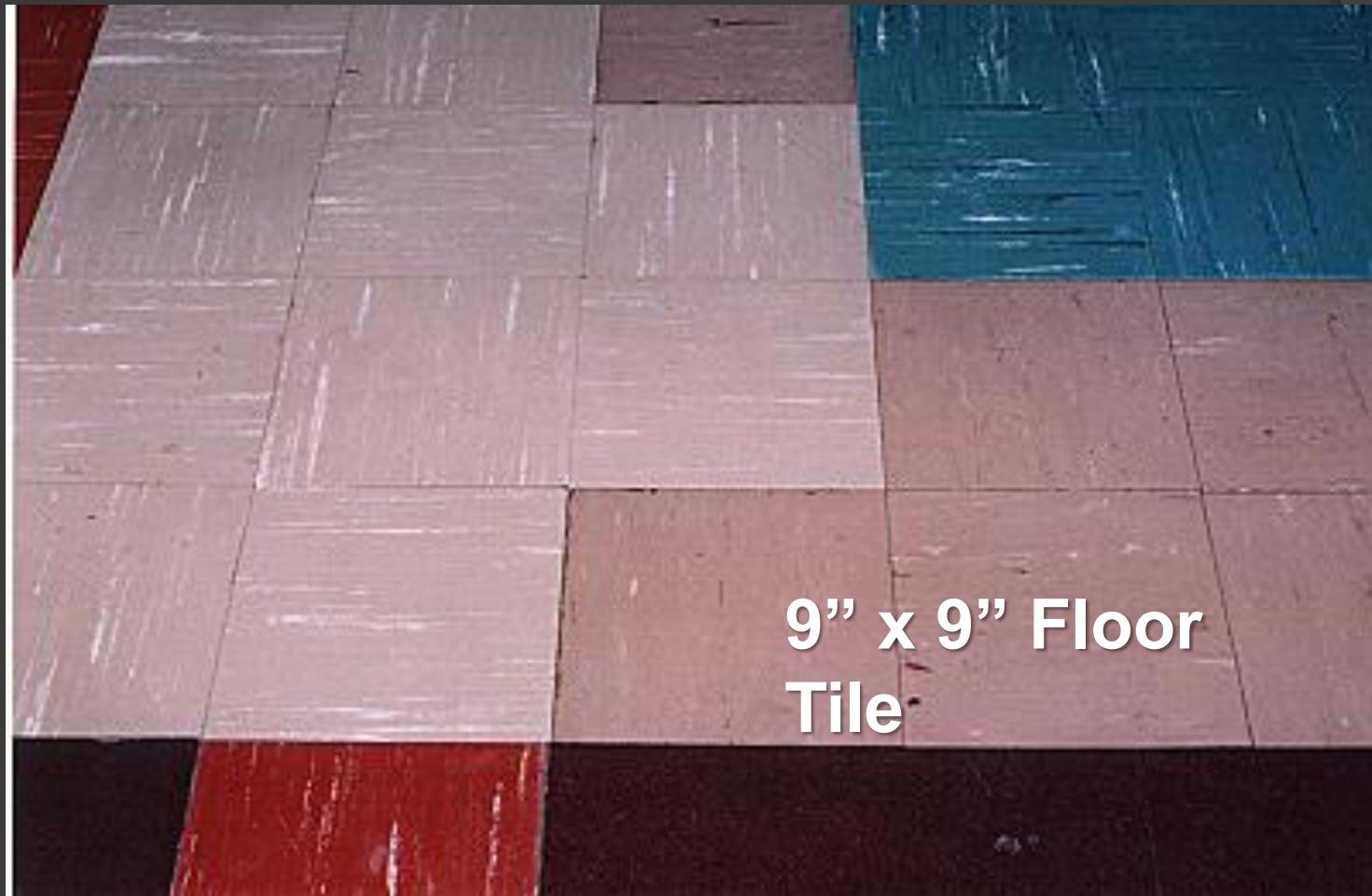


Types of asbestos products

Miscellaneous

- Floor tile
- Ceiling tile
- Transite siding and slate shingles
- Roofing felts
- Wallboard
- Mastics, tars, joint compounds

Miscellaneous



**9" x 9" Floor
Tile**

Miscellaneous

Ceiling tiles and mastics



Miscellaneous



Asbestos cement contains between 10 and 25% asbestos bonded into a cement matrix and is the most commonly used form of asbestos. It is found on garage roofs, soffits and gutters.

Miscellaneous



Linoleum sheet flooring – asbestos is commonly found in the paper backing, containing 80-90% asbestos.

Miscellaneous



Asbestos **transite** or 'slate' siding usually contains 20-40% asbestos.

Miscellaneous



**Asbestos transite
or 'slate' roof
shingles**

Miscellaneous



Unpainted Drywall showing **Taping Compound**. Taping compound may contain asbestos. When drywall is painted it is impossible to determine the extent of the taping compound.

Asbestos and Home Renovations

What you need to know...

Before you start

Will the work disturb asbestos?

- If the material is not wood, metal, glass or fiberglass it may contain asbestos.
- Have a certified asbestos inspector determine if the material to be disturbed is ACM.
- If you do not have the material tested for asbestos you must assume it is ACM.

VERMICULITE

Special Issues

Vermiculite Insulation

- Vermiculite loose fill insulation was used widely as home insulation in Wisconsin attics.
- Vermiculite ‘mica flakes’ insulation is likely to contain asbestos contaminants mixed in with the insulation.

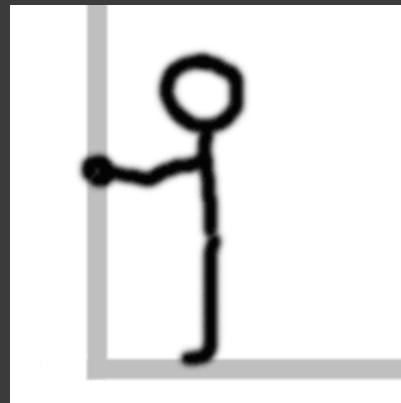


Vermiculite Insulation

Under Wisconsin regulations, loose fill vermiculite insulation is a **Suspect Asbestos-Containing Material**, and is therefore regulated and must be treated as ACM when disturbed or removed.



Questions?



Graphics – WDNR Laboratory Certification Program website -- <http://www.dnr.state.wi.us/org/es/science/lc>