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## Meeting Dates

- May 23** *Asbestos & Lead - Douglas Avvine from IAQ Plus*
- Jun 9** ***LAST CHANCE** - Ct Law Seminar*
- Jun 27** *Foundations - Michael Beaudoin from Techno Metal Posts-Solutions*
- Jul 25** *Indoor Air Quality & Mold- Douglas Avvine from IAQ Plus*

**Holiday Inn  
201 Washington Ave  
North Haven  
(203) 239-6700**

## Asbestos - A Review of the Past, Present and the Future

By Dr. Kamashwaran Ramanathan

The word asbestos comes from the Greek word meaning 'inextinguishable' or 'indestructible'. Once considered a 'magic mineral' due to its unique properties of fire resistance and thermal insulation, asbestos has a variety of uses in building materials such as flooring, roofing, insulation, cements, mortars, etc. It can be subdivided into two major classifications of minerals: amphiboles and serpentines. Chrysotile, the most common type of asbestos found in building material, is a serpentine mineral. Amosite, Tremolite, Crocidolite, Actinolite and Anthophyllite are amphiboles. Amphibole fibers have single solid cylindrical shapes which usually only break transversally, whereas Serpentine fibers are like ropes and are composed of many smaller fibrils which tend to unwind. Chrysotile is very flexible and less likely to be friable than the amphiboles.

There are many methods for the identification and quantification of asbestos in bulk samples including polarized light microscopy (PLM), transmission electron microscopy (TEM), x-ray diffraction, infrared adsorption, etc. There are limitations with all the methods. For example, x-ray diffraction cannot differentiate between fibrous and non-fibrous varieties of similar minerals. Microscopic examinations such as polarized light microscopy or transmission electron microscopy provide information on the confirmation of asbestos and are the most commonly used methods. PLM analysis with dispersion staining is much more rapid and cost efficient in comparison to the TEM analysis, and makes it the method of choice in most cases. For all bulk samples the use of both the stereo and polarized light microscope for identifying and quantifying asbestos is considered to be the method of preference by the vast majority of people. If the sample being tested is water or another liquid, the TEM method is employed.

*Figure 1: Chrysotile bundles in 1.550 HD liquid with central stop dispersion staining.*



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## President's Corner

Bernie Caliendo

**B**usiness appears to have picked up recently in most areas of the state, although not at the level it was the last few years. I've read reports that the sub-prime loans that were prevalent a couple years ago may come back to hurt the economy with higher interest rates for mortgages on new and future home sales. Lets all hope business picks up and stays that way! Some other national statistics recently published stated the percentage of home buyers obtaining home inspections are at the highest levels they have ever been. Buyers are becoming more savvy to the condition of the homes they are buying. With the price of homes at their highest level, buyers are demanding a full, comprehensive inspection and are willing to pay for quality service rather than a quick and cheap one.

By now all who purchased the Building Science books should have received them. If not, contact CAHI by e-mail at [info@ctinspect.com](mailto:info@ctinspect.com). Anyone interested in purchasing one should contact us as soon as possible. We have a couple left for sale @ \$30.00 each.

Also, by now you all should have received you membership renewal package in the mail. Please renew promptly. We are already planning new trips and seminars in order to maintain the quality of our continuing education and benefits. In addition, your attention to completing the information on the application will help us maintain the accuracy of your listing on our web site.

As CAHI celebrates it's 15<sup>th</sup> year, we want to thank you all for your support. Let us know if there is anything we can do for you!

Bernie

## RECALL

### U.S. Consumer Product Safety Commission

#### **Lamson & Sessions Recalls Floor Electrical Outlets Due to Shock or Electrocution Hazards**

**Name of product:** Carlon® Drop-In Floor Boxes

**Manufacturer:** Lamson & Sessions, Cleveland, Ohio

**Hazard:** The recalled floor boxes are wired incorrectly resulting in reverse polarity. This poses a shock or electrocution hazard to consumers.

**Incidents/Injuries:** Lamson & Sessions has received one report of an incident with the recalled floor boxes. No injuries have been reported.

**Description:** The drop-in floor boxes are used to provide an extra electrical outlet in the floor. They were sold under the Carlon® brand name and have a brass finish cover approximately 3½" in diameter. "Carlon" is stamped into the plastic above the receptacle and the model number is located to the left of the receptacle. Model numbers E971FBDI and E971FBDIB are included in this recall.

**Remedy:** Consumers should immediately unplug anything that is plugged into the floor box and contact Lamson & Sessions to determine if their floor box is included in the recall. Consumers with recalled units will receive a free repair.

To see this recall on CPSC's web site, including pictures of the recalled product, please go to: <http://www.cpsc.gov/cpscpub/prerel/prhtml07/07159.html>



*Connecticut Association of Home Inspectors, Inc.*

Last Chance

**"Ct Law Seminar"**

*Spend a morning with Attorney Kent Mawhinney*

Dear Fellow Inspectors,

As we have received over two dozen calls asking about the required law seminar, CAHI has decided to schedule one more law seminar this renewal cycle for those in need.

Anyone who has had an inspector's license since July 1, 2005, MUST have a 3-hour "Ct Law Seminar" in their continuing education portfolio in order to renew your license by June 30, 2007. The Department of Consumer Protection and the Home Inspection Licensing Board **WILL** be conducting a random audit this year to make sure inspectors are obtaining a minimum of 20 hours of continuing education during this 2-year cycle, July 1, 2005 to June 30, 2007 (including the 3 hour Law, Rules & Regulation course) for licensing renewal.

Date & Time: **Saturday, June 9, 2007 from 8:30 to 11:30 am.**

Location: **Holiday Inn, 201 Washington Ave (RT 5) North Haven, CT.**

Fee: **\$99.00** Don't wait. Sign up today!

Doors open at 8:00 am, continental breakfast & refreshments will be served

**REGISTER & PAY**

1. **Online:** [www.ctinspect.com](http://www.ctinspect.com) - On the home page click on "Special Events", click on "CT Law Seminar", click on "add to cart", fill out the form and pay by credit card.

-Or-

2. **US Mail:** Fill out the form below, detach and mail with payment to CAHI, 75 Pond View Circle, Beacon Falls, CT 06403

**CT Law Seminar 6/9/07**

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

Address: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ Ph # ( ) \_\_\_\_\_ - \_\_\_\_\_

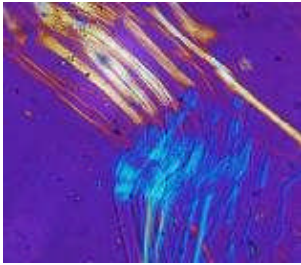
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Signature: \_\_\_\_\_ Amount: \$99.00

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Figure 2: Chrysotile bundles in crossed polars and red compensator.



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Most authorities in the United States and the rest of the world consider asbestos to be one of the major occupational health and safety problems in the world today. Asbestos was one of the first hazardous air pollutants regulated under Section 112 of the Clean Air Act of 1970, and many applications of asbestos have been forbidden by the Toxic Substances Control Act (TSCA). Asbestos litigation, which has become the longest and the most expensive mass tort in U.S. history, has been estimated to have approximately 850,000 claimants suing for asbestos related injuries. The costs have exceeded \$70 billion, leading to bankruptcies of at least 74 companies and loss of more than 50,000 jobs so far. It is estimated that 10,000 people in the United States die each year from asbestos-caused diseases, including one out of every 125 American men who die over the age of 50. The rate at which people are diagnosed with the diseases relating to asbestos exposure is expected to likely increase through the next decade. It has been estimated that the total costs of asbestos litigation in the USA alone may eventually reach \$200 billion.

Since asbestos is naturally present in two thirds of the rocks in the earth's crust, we need to be prudent towards maintaining a working and living environment in which airborne asbestos is in a concentration low enough that it will not result in adverse health effects. The bio-persistence of asbestos fibers following inhalation has been a topic of much interest for researchers throughout the world. Understanding this may help in further understanding the effects of the different asbestos fibers on human health. Calidria chrysotile (California, USA), Canadian chrysotile (textile grade), and Brazilian chrysotile (Cana Brava Mine) are the three different commercial chrysotile fibers that have been studied in detail. Researchers at UC Davis have recently completed the largest study to examine the question of whether naturally occurring asbestos also poses a cancer risk. Published in the American Journal of Respiratory and

Critical Care Medicine, the study found that living near asbestos-containing rock is indeed associated with an increased risk of developing mesothelioma. Reports like this underscore the need to understand asbestos and its effects in more detail.

Recently EPA's National Risk Management Research Laboratory (NRMRL) has tested a new method for asbestos removal that may drastically change the way asbestos is currently removed. Comparing this new method to the conventional method in use today shows that this method not only saves time but also the money involved in such work. When employed, this new method was able to complete the project within a day as compared to the conventional method that took 9 days to complete similar work. The new method was also able to save as much as 40 to 60 percent of the conventional costs. Further information on this new experimental method can also be obtained from the U.S. EPA's NRMRL website.

Aerotech P&K now offers Asbestos analytical services through its EMLab, Inc. affiliate. Please see <http://www.emlab.com/app/services/Services.po?c=8> for more details.

#### References:

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3. <http://en.wikipedia.org/wiki/Asbestos>
4. <http://www.epa.gov/nrmrl/news/news092006.html>
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10. Yung-Sung Cheng, Thomas D. Holmes, Bijian Fan. 2006. Evaluation of Respirator Filters for Asbestos Fibers. Journal of Occupational and Environmental Hygiene, 8 (1) 26-35.

Article submitted by Bernie Caliendo. Permission given by the author through Aerotech P&K.

# Lead Safe Work Requirements to Protect Children During Renovation, Repair and Painting Activities

March 16, the EPA announces the availability of new renovation studies - <http://www.epa.gov/lead/pubs/renovation.htm>

On January 10, 2006 EPA proposed requirements to minimize the introduction of lead hazards resulting from the disturbance of lead-based paint during renovation, repair, and painting activities in most housing built before 1978 (71 FR 1588). The proposal introduces lead training, certification, and safe work practice requirements for contractors involved in these activities. It is one component of a comprehensive program to ensure the use of lead-safe work practices that will also include training and an education and outreach campaign targeted at both workers and consumers. EPA believes this new program will further its goal to eliminate childhood lead poisonings as a major public health concern by the year 2010.

## Background

Lead is a highly toxic metal that was used for many years in paint. Lead can cause a range of health effects, from cognitive impairment and learning disabilities, to seizures and death. Children under six years are most at risk because their developing nervous systems are especially vulnerable to lead's effects. In 1978, there were three to four million children with elevated blood lead levels in the United States. Significant progress has been made to reduce lead poisonings. As of 2002, an estimated 310,000 children had elevated levels of lead in their blood, according to the Centers for Disease Control and Prevention. While the Consumer Product Safety Commission banned lead-based paint for residential use in 1978, more than 38 million U.S. homes still contain some lead-based paint, with two-thirds of the houses built before 1960 containing lead-based paint.

Section 402(c)(3) of TSCA directs EPA to revise regulations codified at 40 CFR 745 subpart L to ensure that individuals engaged in renovation and remodeling activities that create lead-based paint hazards are properly trained; that training programs are accredited; and that contractors engaged in such activities are certified.

Contact the National Lead Information Center (NLIC) to speak with an information specialist: 1(800) 424-LEAD [5323]

## Press Releases, Fact Sheets, Proposed Rules and Other Notices

- **Notice of Availability; New Renovation Studies (March 16, 2007)** - EPA is announcing the availability of two new studies in the Renovation, Repair, and Painting Program rulemaking docket [EPA-HQ-OPPT-2005-0049]. Since the 2006 proposal, two new studies assessing hazards associated with renovation activities have been completed. They include one study conducted by EPA, and a second study conducted by the National Association of Home Builders (NAHB). EPA is offering the opportunity for the public to comment regarding the proposed work practice standards in light of these studies. Comments should be submitted to the docket for the proposed rule by April 16, 2007.
  - Draft Final Report on Characterization of Dust Lead Levels After Renovation, Repair, and Painting Activities.
  - Lead-Safe Work Practices Survey Project Report, Atrium Environmental Health and Safety Services, LLC, for the National Association of Home Builders, November 2006.\*

*\* This report is included in these materials because the subject matter of the report relates to lead-safe work practices. The presence of this report on this site does not constitute or imply endorsement, recommendation, or approval by the United States Government. The views and opinions of the report's authors, as expressed therein, do not necessarily state or reflect those of the United States Government and may not be used for advertising or product endorsement purposes.*

- **Proposed Rule: Lead; Renovation, Repair, and Painting Program.** As part of this proposed rule, EPA developed a sample acknowledgment form to help renovation firms comply with the existing Pre-renovation Education Rule and the requirements of this proposal. This form should not be used by renovation firms until a

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## Licensing Board Update

1. The proposed addition to the Standards of Practice concerning homes serviced by wells is moving forward with the substitute language which requires identifying components and conditions but not performing any tests.
2. The proposal also includes deleting the word "except" from Subdivision 12 of Subsection d of Section 20-491-13 of the General Limitations and Exclusions. It's taken 6 years to get this corrected.
3. The Department of Consumer Protection is contemplating auditing 100% of license renewals this year due to the fact that audits have never been performed on home inspectors and the small amount of licensees, in comparison to the thousands of other trade and professional licensees the department oversees. At a minimum, 10% will be audited.
4. The next licensing board meeting scheduled for July has been postponed until September.

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final Renovation, Repair, and Painting rule is in effect. **Sample Pre-Renovation Form.**

- **EPA's Clean Air Scientific Advisory Committee Lead Review Panel** will conduct a consultation on various technical matters relating to the development of the Renovation, Repair and Painting Program. **Additional information and background materials for the consultation process are available.**
- **Notice of Availability; Lead Hazard Information Pamphlet (March 8, 2006)** - EPA was seeking comment on a new lead hazard information pamphlet for renovation activities, ***Protect Your Family from Lead During Renovation, Repair & Painting.***
- **Notice of Availability of Supplemental Information: Lead; Renovation, Repair and Painting Program (March 2, 2006)** - EPA was seeking comment on, a revised Economic Analysis to support the Renovation, Repair, and Painting Program Proposed Regulation.
- **Notice of Public Meetings: Lead; Renovation, Repair, and Painting Program (2/27/2006).** EPA held public meetings in March/April of 2006 to receive verbal comments regarding the Renovation, Repair, and Painting proposal. To assist the public, EPA prepared a paper, **Renovation, Repair and Painting Proposal; Points to Consider**, which listed the major issues on which the Agency was seeking public input.
- **Fact Sheet - Proposed Rule Establishing Requirements To Protect Children During Renovation, Repair and Painting Activities that Disturb Lead-Based Paint.**
- **Final Report of the Small Business Advocacy Review Panel on EPA's Planned Proposed Rule: Lead-Based Paint; Certification and Training; Renovation and Remodeling Requirements.**
- Additional background information on the development of this proposal. EPA has held public meetings to discuss this rulemaking. Transcripts of these meetings include:
  - **Transcript: December 7, 1998 Public Meeting** about the upcoming Lead Renovation and Remodeling rulemaking.
  - **Transcript: March 8, 1999 Public Meeting** about the upcoming Lead Renovation and Remodeling rulemaking.

## Asbestos

Article submitted by Douglas Auvine

Asbestos is a naturally occurring mineral that has been linked with asbestosis, lung cancer and Mesothelioma. In the 50's and 60's it was considered a miracle material that performed well as an insulator, was chemically resistant, and increased the tensile strength of everything it was added to. As a result it was added to some 10,000 different building materials. Typical examples of building materials that contain asbestos are pipe insulation, boiler insulation, floor tiles and mastics, cove molding glues, sheetrock joint compound, plaster, spray or trowel applied textured ceilings, ceiling tiles, insulation, spray-on fireproofing, window glazing compounds, caulking, roofing materials, transite siding and soffits, and linoleum. Generally speaking, buildings built after 1980 should not contain asbestos-containing materials. However, many of the materials manufactured prior to that date were still used well after 1980. Also, it is not illegal to import materials containing asbestos. We have found many newly constructed structures where the contractor knowingly or unknowingly installed these products. Whenever renovations are planned, suspect materials should be sampled and analyzed for asbestos content so that asbestos containing materials are not disturbed and occupants are not exposed to asbestos fibers. Only a state licensed asbestos inspector can collect such samples. Where demolition is planned, the demo permit will require an asbestos inspection (survey). Asbestos abatement (removal) is highly regulated and must follow strict guidelines for removal and disposal.

Articles published in the CAHI Monthly are the sole opinion of the author. CAHI does not endorse or state a position for or against the content of said articles.

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**Artemis**  
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### CT Home Inspection Licensing Board

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<b>Eric Curtis</b> ,	Public Member
	Public Member

The Licensing Board meetings are held at 9:30 am,  
Department of Consumer Protection, Room 117, 165  
Capitol Avenue, Hartford.

*The public is always welcome.*

E-mail Bernie Caliendo for the latest meeting schedule  
at [bsurehomeinspect@juno.com](mailto:bsurehomeinspect@juno.com)