



# VAREI Newsletter

The Voice of Virginia's Home Inspectors

Virginia Association of  
Real Estate Inspectors

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## Defective Drywall From China Found in Southeastern Virginia Homes

Inside this issue:

Drywall from China is turning into the next product liability problem for real estate professionals and home inspectors. The Florida Department of Health has determined the material gives off volatile sulfide compounds which cause serious damage to copper components in houses. So far the material only has been reported in southeastern Virginia. Chinese drywall was used in construction in houses throughout the Deep South and there is no reason to believe it won't show up in other parts of Virginia.

### How To Tell if a House has Drywall from China.

**First.** The house would have been built, remodeled, or added to between 2004—2008.

**Second.** Be aware of unusual smells when you first enter the house. You are looking for a smell of a burnt match or slight sulfur odor. It may smell musty. Be suspicious if you smell anything

unusual and note abnormal smells in your report.

**Third.** Ask the owners if they have had their air conditioner's evaporator coil replaced. If they have, this may be a sign of Chinese drywall. The volatile sulfur compounds (or maybe something else given off by the drywall) severely corrode evaporator coils and create pinhole leaks which release the refrigerant. (see Photo) The normally copper colored components of the coil are black with a powdery residue that contains sulfides. Some people in Virginia Beach have had coils replaced eight times in just three years. Apparently operation of the AC system concentrates the air flow and allows the sulfides to aggressively attack the evaporator coil.

**Fourth.** Pull some switch or receptacle plates and look at the bare copper equipment ground. In homes with Chinese drywall, these wires have turned black. Switches don't work, etc. Other

electrical components are affected such as microwave electronics, TVs, ranges and refrigerators also are corroded. Some microwaves reportedly have caught fire.

**Fifth.** Look for a stamp somewhere on the back of the wall-board. It should say: MADE in CHINA or KNAUF, or TIANJIN. VENTURE SUPPLY is a stamp found in southeastern Virginia. But sometimes there is no stamp or you can't see it.

**Comment:** The presence of defective drywall is causing huge problems for home owners, health departments, builders, and drywall suppliers in much of the country. The class action lawsuits have begun and some builders are moving people out and tearing out all the sheetrock in homes and replacing it. Not all builders use sheetrock. Some apply plaster over "blue board". There are no reports of blue board coming from China.

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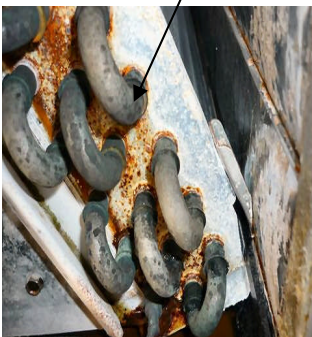
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## Damage From Chinese Drywall

Three year old evaporator coil blackened and pitted.

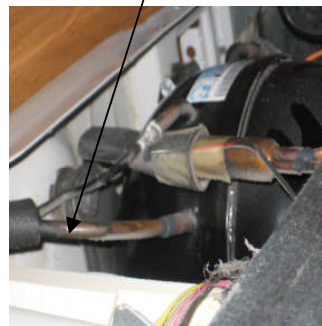


Ground turned black from volatile compounds in drywall. Corrosion increases resistance.



Ground wire has turned black. Should be the color of the penny.

Blackened refrigerant line on refrigerator. Mother board already replaced.



The Virginia Department of Health names home inspectors as professionals to contact to determine if their homes have drywall from China.

In a section titled "Who can I contact to inspect my home"? VDH tells people to "contact licensed professionals: plumbers, electricians, building contractors, home inspectors, environmental contractors, heating and air conditioning contractors and other licensed professionals."

Note: Nothing here about certification.

**From the Board**

**ALHI Board Chairman, Fred Heppner**, says the revised HI regulations were signed by the Governor in mid-May. There will be a 60 day public comment period followed by more state review. The Board will be expanded by four members as a result of legislation passed by the GA. HI's who do mold testing or remediation that may disturb lead paint should apply for Board appointment. Contact Fred: fghepp@aol.com



You can't make it up!  
B. Garrison, Abingdon



Unvented bath fan.  
S. Tully, Yorktown



Check metal duct work on or near the crawl space floor. J. Cranor, Glen Allen

## Agenda and Speakers Set for October Meeting

**When:** October 3, 2009 **Where:** Cultural Arts Center, Glen Allen  
**Registration:** 7:30—8:15 **Conference:** 8:15-4:00; 6 CEUs pending  
**Cost:** \$140 (includes annual membership, a listing and personal profile on the VAREI website and lunch)

### Vendors

### Speakers

**Joe Loferski** is a professor in the Department of Wood Science and Forest Products at VA Tech University. He specializes in wood engineering with emphasis on structural design and long term performance of wood and wood-based composites; and diagnosis and prevention of moisture and decay problems. He is best known for his work on wood connections and wood deck construction. He has been featured in *JLC* and is nationally recognized for his research on catastrophic deck failure.

**Roger Robertson** is chief of inspections for the Chesterfield County Department of Building Inspection. He has been in the code enforcement field for over twenty years. He has served as chairman of numerous committees of the Virginia Building and Code Officials Association, the Virginia Department of Housing and Community Development, and the International Code Council. He is an excellent speaker and a certified instructor for the International Code Council and a certified Lead Instructor of the Jack Proctor Building Code Academy.

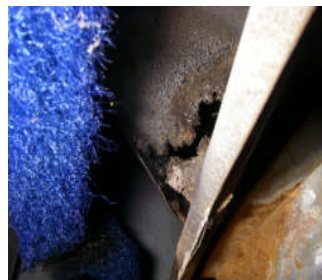
**John Bouldin** is a well-known veteran home inspector from northern Virginia. He is a PhD candidate in wood science and engineering at Virginia Tech. Engineered wood truss and floor framing systems and wood science for home inspectors are his specialties. He has given presentations at ASHI, NAHI, and ITA conferences. John was instrumental in shaping the original home inspection regulations and was one of the first members on the ALHI Board.

To register for the conference, fill in the attached form. Fax the form to John Cranor at: [866-929-9103](tel:866-929-9103). Pay your annual dues prior to the conference at [VAREI.org](http://VAREI.org). Or send a check to the Treasurer at the address on the back of the news letter.

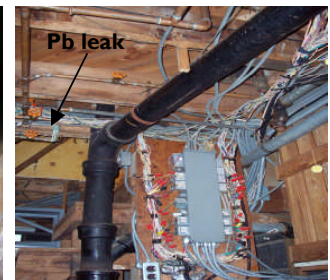
## Photo Gallery



PVC used as dryer vent.  
J. Cranor, Glen Allen



Back of an old oil furnace.  
J. Cranor, Glen Allen



What do you say about this?  
J. Gannon, Charlottesville

## Virginia Department of Health Issues Statement on Chinese Drywall

Health authorities from the Consumer Products Safety Commission down to state agencies are scrambling to determine if the volatile compounds given off by Chinese drywall are harmful to human health. There is no doubt among many homeowners who report nosebleeds, respiratory problems, watery eyes, coughing, etc. Many of these people say their conditions clear up after they leave the house. Some health authorities are attempting to document what is in the wallboard that causes health problems.

The Florida Department of Health has taken the lead and issued its first preliminary report in late March. Their environmental testing showed several things; that the wallboard was substantially different than US manufactured sheetrock in that it gave off sulfide compounds that created a sulfur smell; that it contained much more organic material than US wallboard; and that the sulfur smell intensified in the presence of high humidity. The FDH said nothing definitive about the effects on human health, however, and continues to study the problem.

Meanwhile the CPSC has pulled samples of the wallboard from southeastern Virginia, among other places, in an attempt to determine what is in

the sheetrock and whether there are substantial health effects.

The Virginia Department of Health, Division of Environmental Epidemiology issued a statement in mid-April addressing the metal corrosion associated with drywall imported from China. The statement indicated the sulfur and other chemicals emitted by the drywall may irritate the respiratory system. They went on to say that current health data do not suggest any immediate or chronic health problems associated with Chinese drywall. They will continue to collect and assess data as it becomes available.

The VDH did address the matter of "Freon" being released into homes. They noted the chlorofluocarbons used for refrigeration /air conditioning would not be expected to pose a health risk for homeowners should a leak occur. They did say that with extremely high CFC concentrations individuals have experienced heart beat abnormalities, loss of coordination, narcosis and dizziness.

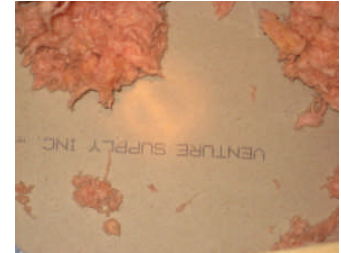
The VDH is advising people that home inspectors are one group of **licensed professionals** who can be contacted to inspect their homes if homeowners

suspect the material is in their homes.

### **Why did the US import drywall from China?**

According to a representative at National Gypsum, there was a shortage of drywall from 2004 to mid-2006. She said even though factories were operating at full capacity and around the clock, they could not keep up with demand. When hurricanes Katrina and Wilma devastated the gulf coast in 2005 the demand for dry wall to rebuild increased and made the shortage worse. Some suppliers have stated they would have had to shut down if they couldn't import from China. Current estimates are that enough drywall was imported to build anywhere from 30,000 to 100,000 homes.

Some press accounts and class action lawsuits allege Chinese drywall contains fly-ash. There could be some truth in that but the details are important. About half the gypsum manufactured in the United States is synthetic—coming from the reprocessing of the residue from coal burning power plants. The resulting material has the same chemical make-up as mined gypsum, according to National Gypsum. "It is not fly-ash." It will be a while before we find out what is in Chinese drywall.



VENTURE SUPPLY stamp on drywall from China.



Plug unused drain ports to prevent air leaks. B. Blackwell, Powhatan

### **VAREI in the News**

**President, John Cranor, was interviewed by WTVR, Richmond on the 11 pm news on May 11, 2009. John was called out by the news team to investigate a homeowner concern that she had defective drywall from China in her home. They filmed John doing the investigation and then interviewed him later. The news reporter noted John was president of VAREI. The home owner did not have Chinese drywall.**

## AFCI Requirements Change

The 2006 Virginia Residential Code states that "on January 1, 2008 all AFCIs should be the combination type." Virginia also is using the 2005 NEC. [So what is a combination AFCI?](#)

There are several types of arc-faults: [series](#) arc-faults and [parallel](#) arc-faults. Series arc-faults are the type that occur when one side of a conductor is damaged and electricity arcs across the damaged section to the same part of the conductor on the other side of the damaged area. Damage on one side of a lamp cord is an example of a series arc fault.

[Parallel](#) arc-faults occur when the ungrounded conductor (hot) comes in contact with the grounded conductor (white) or the equipment ground. This could occur if a support staple was nailed too hard on a wire and with time and expansion and contraction the staple cuts through the insulation and causes a fault between the wires.

The original AFCI circuit breakers only had to detect

parallel arc faults. The combination breakers detect both kinds of faults and thus provide a broader range of protection against fire-causing arcs in homes. These devices may be particularly useful in protecting old wiring systems against dangerous arc-faults.

If you use a tester, check with the manufacturer to see if they offer upgrades for older models.



Insurance companies increasingly refuse to insure fuse panel installations. Can you blame them? D. Gage, Norfolk

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### The voice of Virginia's Home Inspectors

#### Newsletter

The VAREI newsletter will be published quarterly. Contributions from inspectors and photos are welcome. Items will be included in the newsletter at the discretion of the editor and the Board of Directors. Subjects should be of broad interest to Virginia's home inspectors. Ideas for articles including technical subjects also are welcome.

E-mail contributions to : hptw@infionline.net

**Mark your e-mail as a newsletter contribution.**

**The Virginia Association of Real Estate Inspectors (VAREI)** was founded as a non-profit association in 2000. VAREI's mission is twofold: to represent the home inspection industry in legislative and regulatory matters; and to promote excellence in the home inspection industry. The organization is headed by a Board of Directors consisting of eleven members. There are four officers; President, Vice President/President elect, Secretary and Treasurer. and seven elected board members. Officers serve a one year term. Board members serve alternating two year terms. There are four standing committees; education, membership, public relations and legislative.

The Board meets four times a year. Meetings are held at a central location in the state that is reasonably accessible to all board members. There is an annual meeting for all VAREI members on the first Saturday in October. The meeting usually is in Richmond.

## Q & A

The Board decided to introduce a limited Q & A session in the newsletter as a means of helping inspectors share observations and professional practices.

**Q:** I recently saw an electric service entrance cable that entered through a mast head and traversed the length of the attic ( not in conduit) and exited a masonry wall where it entered the meter and then connected to the panel box on the nearby garage wall. Is this acceptable?

**A:** There are at least two concerns about this: there is no main disconnect where the service enters the house and the service cable is not protected from physical damage in the attic. Our guess is that this is an older house maybe with a fuse

panel and 125 amp service or so. Look for other issues that would allow you to address the entrance cable in terms of other problems with the electrical service: maybe over fusing and double taps; maybe an overloaded panel. This way you can put your immediate concern about the service cable in context of the overall system. Also insurance companies will not insure fused panels anymore. Say something like " Old wiring system with specific problems as noted. Consult electrical contractor for more thorough evaluation of electrical system including service entrance configuration." Also "consult homeowners insurance company about electrical requirements."

**Q:** What is a good source to determine when a requirement

became code? Examples would be : GFCI in kitchen, 200 pound lateral force test for guard rails, sub panel wiring configurations, etc.

**A:** There is no such index other than copies of the original codes. While every inspector has the desire to consult a code book once in a while, it is better to avoid code references so you don't get into trouble.

For example: The requirement for GFCIs within six feet of a kitchen sink first appeared in the 1990 NEC. But Virginia does not adopt codes for several years after their date of national publication. They adopted the 2006 IRC in March, 2008. You could easily find yourself inspecting a 1992 house with no GFCI receptacles within six feet of the kitchen sink. This is acceptable if the state did not adopt the

1990 NEC until long after the house was built. The 1990 requirement later was modified to require all 125 volt receptacles serving kitchen counter tops be protected by GFCIs. So by calling the absence of these devices a defect you create a problem. You do have to be fair to the house! It is better to make a notation, "GFCI's recommended in kitchen eventually." Something that indicates you observed the absence of these devices but gives you cover in case they were not required. Code knowledge definitely helps improve inspector observation skills and provides the basis of much of our knowledge, but when a particular installation actually became code is another question!

**Q:** Which mortgage organization—HUD, FHA or VHDA—requires a mobile home to have a permanent foundation which includes the full perimeter walls made with brick or block along with mortar?

**A:** VHDA. Others require wood or vinyl.

## VAREI Annual Meeting and Educational Conference

October 3, 2009

Cultural Arts Center

Glen Allen, VA

Registration: 7:30—8:15

Conference: 8:15-4:00 pm

6 CEUs pending

Cost: \$140 (includes annual VAREI membership, a listing and personal profile on the VAREI website, and lunch)

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

E-mail Address: \_\_\_\_\_ (so we can communicate with you)

Mailing Address: \_\_\_\_\_

Primary phone: \_\_\_\_\_ National Affiliation (if any, for CEUs: \_\_\_\_\_

I plan to attend the VAREI annual meeting and conference :    Yes        No

To Register: Copy and fax this form to John Cranor: 866-929-9103

To renew your VAREI membership go to VAREI.org and you can pay by credit card.

**Register soon**

**Seating is limited**

**Join VAREI    Learn, Protect, Share**