

Statement from NORMI regarding Chinese Drywall 03/2009

This paper is being written with the intention of being a “living” document current to the date above but initially copyrighted as the date below. This document may be updated or revised as new and accurate information comes forth regarding this emerging issue. We have tried to collect only factual information to support our decision to recommend only removal and replacement of the offending drywall. Any other solution addressing relative humidity, air purification or encapsulates should be seen as temporary with only minimal positive effects.

Drywall now identified as “Chinese Drywall” appears to be off-gassing a number of volatile organic compounds (VOCs) the primary of which is Hydrogen Sulfide (H₂S) as a result of the manufacturing process and has been detected in drywall shipped to the US and received between 2004-2008 as a result of the high demand in the aftermath of multiple hurricanes. The current evidence shows:

- The levels of H₂S are sufficient enough to corrode copper, brass, and some other metal building materials,
- The corrosion process may be accelerated by increased relative humidity in the indoor environment,
- There are varying degrees of other toxic compounds in the gypsum that may be as troubling,
- Homes may contain different amounts of drywall but a rule of thumb would suggest that a single family detached dwelling is likely to have the same drywall throughout the home where condos and multi-family building could have a mix of different kinds from different manufacturers,
- Approximately 13 manufacturing facilities in China could be involved,
- At least 550 million pounds of this drywall has been offloaded in at US ports since 2004 (one estimate suggests that this is enough to supply 250,000 average-sized homes however, this drywall was supplied to both single family detached and multi-family dwellings under construction.
- There is evidence that this drywall has been found in Florida, Arizona, Colorado, Georgia, Louisiana, Maryland, Nevada, New Jersey, New Mexico, North and South Carolina, Virginia, and Texas.
- Estimates be made that as many as 41 states may have found this drywall.

Health concerns vary, of course, but the municipalities and federal agencies have officially establish NO STANDARD for levels of H₂S in residential indoor environments, therefore, it is unknown what might be considered a “Safe” level. OSHA has established safe levels for the workplace but that is a different matter.

The corrosion that has been occurring to buildings appears to be seen as damage in the following ways:

- Noxious odors smelling like sulphur or “rotten eggs”,
- Corrosion of copper tubing, wiring, and water lines, as well as, some other metals (pics attached)
- Corrosion might also be seen in jewelry, chrome, and silver so plumbing faucets and drains might appear tarnished more quickly than normal,
- It has been reported that wiring in smoke detectors, televisions and other electronics may be affected due to the deterioration of lead soldering,
- Some nails and nailing plates may be affected.

A initial visual screening may be completed to determine if there is a reason to suspect the problem and then testing from a reputable lab (like EMSL, maybe others) can take place to verify that what is suspected is, in fact, present. Only after documented proof from a qualified lab should a solution be implemented. There are no short-cuts and no methods currently available to test for these levels of VOCs outside of laboratory analysis.

Our position is, therefore, that because off-gassing is occurring both INTO the living envelope (on the interior side of the drywall) and OUTWARD from the living envelope (into the cavity of the walls) there is no solution that will result in significantly reducing levels of H₂S that does not include the entire removal and replacement of every sheet of defective drywall. Any attempt to mask the odor or deal only with the interior envelope (or living space) should be seen as a temporary fix with no guarantee that the levels of H₂S will be reduced or, if reduced, for how long.

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