

To: Chinese Drywall Colleagues
Fr: Gary Rosen, Ph.D.
Re: New Techniques for In-Home Air Sampling

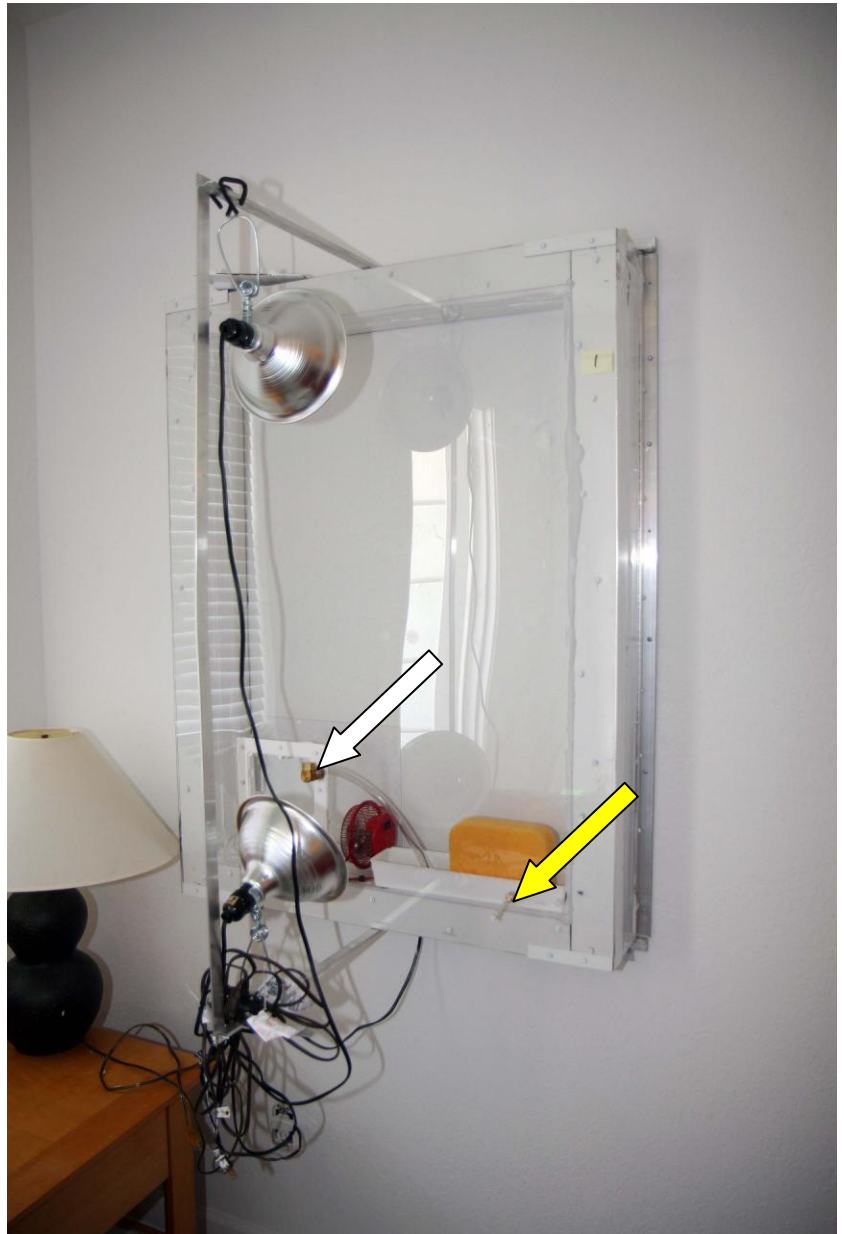
March 23, 2011

We have recently completed our first Molecular Cleanz™ Chinese drywall remediation project. Drywall was remediated in-place. No drywall removal.

A well respected third party CDW testing firm is now performing extensive post-remediation testing. This has required that certain specialized testing equipment be developed.

Post remediation testing to prove the effectiveness of Molecular Cleanz™ testing requires that:

- Any specific wall must be able to be tested for release of corrosive gases as measured by metal coupon corrosion; as well as tested for the release of sulfur (odorous and/or corrosive) gases as measured by air sampling.
- Corrosivity and off-gassing are dependent on several factors such as humidity, temperature, and air flow.
- These parameters need to be controlled within the In-Home test chamber and should be independent of the conditions within the home (otherwise you cannot do post remediation testing except in the summer!)



Once the testing is complete we plan on having an Open House to demonstrate how Molecular Cleanz™ works. The property is located in the Tradition development in Port St Lucie, FL.

During the Open House, people will be able to see the testing apparatuses (chambers) first hand. In the meantime here's a few pictures of what we are doing that may be of interest.

In the picture above the sampling apparatus is designed to measure off-gassing (or actually lack of off-gassing) of any particular wall treated by Molecular Cleanz™.

- The light source(s) allows one to control temperature. Heat can be varied by using different wattage bulbs, number of light sources, and distance of light source to the chamber.
- An interior water source and the surface area (size) of sponge allow one to control humidity.
- Interior water supply can be replenished without opening up the collection chamber (white arrow in picture above points to fill valve.)
- A fan is used to provide internal air flow.
- Yellow arrow in picture above points to connector to which air sampling canister is connected. The quartz-lined stainless steel collection canister arrives from the lab under a vacuum. You simply connect to the outlet port and collect the sample. No pumping is required as with plastic collection bags. Unpressurized air craft cabins do not affect the steel canisters (unlike with the plastic bags.) And the steel containers are opaque and light does not enter and start to break down the sulfur gases (as with the plastic collection bags.)

The test chamber on the right is also located in the home. This chamber is not attached to any wall but is free standing. Inside of the chamber is corrosive drywall that has not been remediated by Molecular Cleanz™. It is a control.

- Yellow arrow points to monitor that displays the internal temperature and humidity.
- White arrow points to a few pieces of corrosive drywall sitting inside the test chamber on an aluminum rack.

Just as in the other test chamber above, the temperature, humidity and air flow can be controlled to simulate conditions of a Florida home in the summer (or any other conditions.)

Sincerely,



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State Licensed Building Contractor
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