

# The Chinese Drywall Human Health Effects

*A Forensic investigator's point of view.*

As a forensic investigator and businessman, developing solutions to people's problems is what we do at U S Building Consultants Inc. Coming into a bad situation and designing the solution to the problem is a win-win situation that we find extremely rewarding. However, over the last several months, traveling through south Florida inspecting and analyzing the Chinese Drywall Crisis has left me and my staff devastated and heartbroken.



I personally found myself leaving clients homes and breaking down in tears. I have investigated and taken part in over 10 different hurricane recovery efforts with hundreds of buildings and homes over two decades in Florida but I don't know if I have investigated anything as difficult to deal with as the Chinese Drywall Crisis.

One of our clients said that "Spiderman, if we could have just seen it coming, we could have been prepared." Tears in her eyes and her little children sick with the out-gassing of possible toxic gases, it was hard not to become emotionally involved with this family. She asked me that if some of the materials in their home was turning black, what about their lungs and other organs. Her husband, a 20 year veteran of the United States Air force and now a school teacher and assistant coach for the local football team is dependent over his children laying all over their home with fatigue and health issues.

The 2-year-old baby is on a breathing machine, cabinets are filled with medication, and their 11-year-old son continues to have major nose bleeds and has visited the doctor more in the last two years than his previous 9 years. Are these conditions that we are seeing just some strange coincidence? I choked up after looking at all the doctor reports spread out over the counter and their eviction notice telling them to get out by the mortgage holder. I asked why they were being evicted. She responded, were paying more on medical bills and medication for our family than we are for the household bills.



I touch the baby's breathing machine, inspect the cabinets of medication, and read page after page of medical reports of this once healthy family now being strangled physically, physiologically and financially by the high toxicity levels of sulfur compounds in their home. It's the same stories all across Florida that we continue to investigate day in and day out. Can all these people experience the same thing with out-gassing sulfur and be wrong. Do they need a psychologist, as some have alluded to, or were they already sick from something else? Why do a lot of the children have breathing problems? How can a perfectly healthy family just two years earlier move into a home after losing everything in Katrina only to be struck down health wise and lose their home all over again to something they didn't even see coming!

As a 47-year-old man and former United States Marine sniper, it can take a lot before I break down or cry. But with the case of Gerard and Crystal Kinler, it truly got to me. They had four beautiful kids and a wonderful family. Maybe having four kids of my own and seeing what they were going through made me question, how would I feel in this situation? What if it was my children spitting up blood and lying around full of fatigue? Sometime during the inspection, I quit seeing them as my clients and I started seeing them as neighbors or friends. Where will they go? How will they pay to have their dream home repaired? What about their jobs, credit, and future for their children? What about the long term health affects to the sulfur compounds that they have been breathing in over the last two years? What happens if the science proves that long-term exposure is toxic and damaging to their health? There are so many questions and too few answers for the Kinler family and others throughout Florida. While the toxicologist is in a legal battle to prove or disprove the human health risk, the physical evidence in the field is overwhelming and should not be ignored.

We went to the Kinler residence to assist them based on our expertise in the environmental conditions of their home but left without being able to help. I am so use to fixing people's problems and found myself hopeless and without the answers I always seem to have. A good expert does not have to know everything; he just has to know where to go to get the answers. In this situation, there was no one to turn to. Priding ourselves as being the CSI of the construction industry, this was both frustrating and disheartening. If anyone can develop a solution to this, we should be able to. However, with no money, FEMA,



or governmental support at this time, I have never felt so hopeless trying to find a way to help so many people in a really bad situation.

I felt a knot in my stomach, when the Kinler's 12-year old son cried out my name in excitement, "hey Spiderman, look at my room." The smell of out-gassing sulfur poured out from his walls and I know he had no idea what may be happening to him. What made it worse; I didn't even know what the effects of these toxic gases played on the long term health effects. All I knew is when the seven of us with U S Building Consultants walked into the home to do the testing on the home that day, five got sick with headaches, burning eyes, breathing and throat irritation, and one person who cut out the drywall could not function well the next morning. It was hard to believe that if we were so affected by the out-gassing during several hours of inspection, what was happening to the family who was being exposed every day?

Over the last several months, we have worked with the top Toxicologist in the nation trying to find answers. We formed working groups with national and international forensic investigators and building scientist. We read every article on the web and hired chemist to help in our lab to determine both inspection and remediation protocols. At the end of the day, it is becoming obvious that the long term exposure to these 11 sulfur compounds may take years to determine long-term health effects.

For now, we push on late into the evening trying to set proper standards for inspection, remediation, and certification of homes and buildings. One bright spot is the technological advancement of air purification equipment that we are currently testing in one of the Florida homes that were turned over to U S Building Consultants for testing. Laboratory testing and on-site preliminary testing show a reduction in out-gassing by an estimated 80-90% in the first day. This would be a tremendous breakthrough for us if we can scientifically prove stabilization of the gases in these homes until remediation can be done. Our main concern is many people have no money and nowhere to go. They will be forced to stay in their homes and suffer the effects of possible toxic out-gassing. We have to find a solution for this since the life safety issue is the most important aspect of this crisis.

One example of this problem is a home owner in Miami called me to cancel his inspection to determine if he had Chinese drywall. He told me he had a four year old son and if we prove the toxicity levels of sulfur gases in his home, he would be possibly endangering his little boy. With no money and no place to go, he said the decision would be to stay or move his family out into the street. He chose not to know, to protect his own conscience. I tried to drive down and offered to do his inspection at no cost. It was then I realized he did not want the inspection for his conscience sake. He said he did not want to know that he might be jeopardizing his son if the sulfur compounds in his home were a health risk. This is when I decided that stabilization would have to be part of the solution until the funding could catch up with the problem. I still don't have all the answers today but we had made a lot of headway in testing and analyzing the problems.

We now know how to properly inspect and test; and the remediation procedures are almost completed. There would be nothing worse than having people live through this nightmare twice. No one should be doing air testing alone in determining the Chinese drywall conditions in a home and remediation should not commence until established protocols are written. Our preliminary findings on the remediation process which is currently on-going, has proved to be inadequate. After removing the source of the problem (Chinese drywall), sulfur out-gassing in the repaired homes returned in some cases. I would caution anyone who has plans on remediating to wait until the scientific testing is completed. At U S Building Laboratories, we are finding that much of the interior construction may be able to be salvaged and dramatically reduce the overall cost of restoration. We should have answers very soon as to what has to come out, what can be saved, and what has to be discarded. It is important, that the testing protocols and standards are correct and that the field testing (in actual homes) verifies our laboratory analysis.

We're seeing some very positive signs for getting people back into their homes from this crisis. The unknown of course, is going to be the "Long-Term Human health Effects".