

U.S. Consumer Product Safety Commission











TESTIMONY OF
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DIRECTOR
DIVISION OF HEALTH SCIENCES
U.S. CONSUMER PRODUCT SAFETY
COMMISSION

SUBMITTED TO
SUBCOMMITTEE ON CONSUMER AFFAIRS,
INSURANCE, AND AUTOMOTIVE SAFETY,
SCIENCE AND TRANSPORTATION
U.S. SENATE

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Testimony before
SUBCOMMITTEE ON CONSUMER AFFAIRS, INSURANCE, AND AUTOMOTIVE SAFETY
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
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Good Morning, Mr. Chairman and Senators.

My name is Lori Saltzman. I am a toxicologist and the Director of the Division of Health Sciences at the U.S. Consumer Product Safety Commission (CPSC). With approximately 450 employees across the nation, the CPSC is a small, independent and bipartisan federal commission charged with protecting the public from unreasonable risks of injury and death associated with thousands of consumer products.

Since its establishment in 1973, CPSC's work has contributed substantially to the decline in the rates of death and injury related to the use of consumer products, and it has been my privilege to work at the agency for over 25 years.

I am pleased to have this opportunity to testify today regarding CPSC's work on the emerging drywall problems that home owners are experiencing, particularly in Florida, but also in Louisiana, Virginia, Mississippi, and other states as well. The CPSC is the lead agency in a coordinated federal investigation involving the Environmental Protection Agency, the Centers for Disease Control and Prevention, and the Agency for Toxic Substances and Disease Registry.

We are working closely with state and local government agencies as well. Close coordination of our enforcement and regulatory activities among the various state, local and federal agencies is essential given the many federal agencies with responsibilities and the myriad of state and local housing standards and codes that regulate construction. Historically, our federal partners, along with the Occupational Safety and Health Administration and the Department of Housing and Urban Development, have addressed

other housing hazards, such as lead, asbestos, formaldehyde and carbon monoxide, in close cooperation with state and local regulatory and enforcement officials.

In the investigation of drywall problems, we are engaging in a systematic, multidisciplinary and comprehensive scientific investigation that recognizes the urgency of the problem and the difficult situation facing homeowners who have been affected.

To date, the CPSC has heard from over 320 residents in 16 states and the District of Columbia who report that they are experiencing health symptoms or the corrosion of certain metal components in their homes that they believe are related to the presence of drywall produced in China.

Common complaints in the reports submitted to the CPSC include:

- a "rotten egg" smell within the consumer's home;
- health concerns such as irritated and itchy eyes and skin, difficulty in breathing, persistent cough, runny noses, recurrent headaches, sinus infection, nosebleeds, and asthma attacks; and
- blackened and corroded metal components in the home and frequent replacement of components in air conditioning units.

These consumers largely report that their homes were built in 2006 and 2007 when an unprecedented increase in new construction occurred in part due to the hurricanes of 2004 and 2005.

CPSC's investigation of drywall is proceeding simultaneously on three distinct tracks:

- 1. evaluating the relationship between the drywall and the reported health symptoms;
- 2. evaluating the relationship between the drywall and electrical and fire safety issues in the home; and

3. tracing the origin and the distribution of the symptom producing drywall.

CPSC field staff is continuing to collect samples of various drywall and degraded electrical, gas and fire safety components and working to identify points along the distribution chain that link manufacturers to U.S. consumers.

Additionally, field staff is following up with a number of residents to discuss their particular drywall issues and to document their experiences in greater detail. We have field investigators permanently stationed in the affected states, and we are shifting additional staff to those areas to assist in this investigation.

One challenge for our field investigators has been to determine the quantity of problem drywall present in a particular home, given that it is already installed, likely painted and may not be clearly marked. The drywall in question could fill the entire house or be just a few sheets in one or two rooms.

To assess the impact on human health, the CPSC, in coordination with other federal and state agencies, has advanced a multi-tracked test program. The specific elements of the test program include laboratory elemental characterization testing, chamber testing of domestic and imported drywall, and in-home air sampling.

It is important that our scientists carefully determine how the reported symptoms may be related to the drywall as opposed to other environmental factors or pollutants in the home. In this regard, we are aggressively conducting a scientific investigation and researching scientific literature and reports for evidence which could link the identified chemical emissions from the drywall chamber testing and in-home air sampling to the reported health complaints.

The laboratory elemental characterization testing will identify any fundamental differences between domestic and imported drywall samples so we can determine what is contained in the composition of each sample. The data from the elemental characterizations will guide us in focusing on what to analyze during the chamber and the in-home air sampling testing.

The laboratory chamber tests will isolate the drywall's chemical emissions from those of other products found in the home (e.g., carpets, cleaners, paint, adhesives, and beauty products) so that we can determine what gases are being emitted from each drywall sample.

Our in-home air sampling testing will involve real-time measurements of sulfur containing compounds, acid and other gases, including volatile organic chemicals, pesticides, and the possible presence of refrigerant byproducts. The presence of microorganisms will also be checked. Samples will be collected from indoor spaces and from behind wall cavities. The measurements will take into account humidity and heat conditions and will take place at various times of day since some symptoms have been reported to occur in the morning after hours of sleeping.

In addition to health symptoms, residents have also reported blackened and corroded components containing metal in their homes. Particularly, consumers have reported premature failures of central air conditioning evaporator coils located indoors and intermittent operation or failure of appliances, such as refrigerators and dishwashers, and electronic devices such as televisions and video game systems.

To date, the CPSC has not received any confirmed reports of fire, electric shock or fire precursor incidents (such as discolored, overheated/burned out, or smoking components) related to problem drywall.

Visual examination of electrical wiring within affected homes by CPSC engineers has shown varying levels of corrosion on the exposed portions of copper wires, in particular ground wires, since they are not insulated. The presence and extent of corrosion within a house, or even within a room, however, appeared inconsistent.

The CPSC is focused on the potential electrical and fire safety issues in the home, including the corrosion of components related to fuel gas piping and fire safety devices. Electrical components are a particular target for this investigation. Electrical components include residential wiring, receptacles, switches, circuit breakers, panel boards, ground fault circuit interrupters, and arc fault circuit interrupters.

CPSC engineers are investigating the deterioration of connections such as where a wire is connected to a receptacle or where a circuit breaker is installed in a panel board. A degraded connection could develop hot spots resulting in overheating and possibly fire.

Engineers are also looking at the erosion of copper conductors over time, which would compromise their physical integrity. If the corrosion is progressively eating away at a wire, the wire would eventually lose its capacity to carry current and start to overheat or become physically weak and break.

Another concern for our engineers is possible damage to circuit traces or electronic components on printed circuit boards which could cause failure of protective devices like ground fault circuit interrupters, arc-fault circuit interrupters, and smoke alarms.

Shock and fire hazards could result from the loss of protection that these devices provide, and damage to gas service components, such as flexible connectors and copper piping, could lead to gas leakage and a fire or explosion hazard.

With regard to smoke alarms, concerns include potential damage to electronic circuitry and degradation of the sensor. Either condition could result in an inoperable smoke alarm. For fire sprinklers that use metallic fusible elements, corrosion may adversely affect activation temperatures.

CPSC's investigation into electrical and fire safety issues includes a two-part engineering component test program. Initially, a metallurgical analysis of various components collected from affected residences will be carried out. In addition, electrical/gas components and fire

safety devices from homes will be tested for integrity, functionality, and possible safety hazards. This analysis will characterize the type and extent of any damage.

The second track of this test program exposes *new* components to elevated levels of gases that are identified in the drywall chamber tests to simulate accelerated aging. Our engineers will compare the aged samples with the samples collected from the homes.

It is critical that these interrelated elements of the test program coordinated by CPSC's technical staff be conducted with thoroughness and precision so that we can correctly identify the specific cause of the reported health symptoms and corrosion and develop an appropriate remedy for consumers.

Additionally, our findings may be needed to support the agency in the event that we go to court to force a corrective action. The CPSC does not have the authority to order a company to conduct a recall without a trial, and we do not want to jeopardize any potential remedy for homeowners by having inadequate scientific proof to support and advance a possible court case.

In addition to CPSC's technical work that I have discussed, agency staff has also been in contact with our counterpart agency in China, the Administration for Quality Supervision and Inspection and Quarantine (AQSIQ). AQSIQ has initiated an investigation and brought the Chinese Ministry of Commerce into the case, and we have a continuing exchange of information underway. Additionally, the CPSC has accepted AQSIQ's offer to send an expert team to the United States, and we plan to have a CPSC investigative team travel to China.

Before closing, I would also like to refer you to the website that the CPSC has established -- www.cpsc.gov/drywall -- to report on our research and investigation into drywall and to provide updates and answers to your constituents' questions. The website includes important advice and information for your constituents who are experiencing health symptoms or mechanical and electrical degradation.

Mr. Chairman, the Commission recognizes the severity of this problem, and resources from throughout our agency are being redirected to support this effort. We are working diligently to come up with the answers that we need to address this challenge in a comprehensive way that provides the fullest protection for your constituents.

I appreciated the opportunity earlier this month to join other CPSC and EPA staff here in this room for our Congressional staff briefing on the drywall problem, and I am pleased to have the opportunity to be here again today to answer your questions.