



## NEWS from CPSC and HUD



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### CPSC Completes Final Studies to Help Affected Homeowners Remediate Problem Drywall

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) and the U.S. Department of Housing and Urban Development (HUD) today released updated [remediation](#) (pdf) guidance for homeowners with problem drywall. The guidance calls for the replacement of all: problem drywall; smoke and carbon monoxide (CO) alarms; electrical distribution components, including receptacles, switches and circuit breakers, but not necessarily wiring; and fusible-type fire sprinkler heads.

The updated remediation guidance is based on studies just completed by the National Institute of Standards and Technology (NIST) on potential long term corrosion effects of problem drywall on select [gas components](#) (pdf), [fire sprinkler heads](#) (pdf) and [smoke alarms](#) (pdf).

CPSC and HUD staffs believe these final studies that resulted in an update of the remediation guidance, along with previously-issued [identification guidance](#) (pdf), will enable homeowners to comprehensively remediate those homes containing problem drywall with potentially lower costs than by following the previous remediation guidance.

#### Key Findings

The key finding is that none of the studies performed at NIST on smoke alarms, fire sprinkler heads, or gas service piping found corrosion associated with problem drywall that provided evidence of a substantial product safety hazard, as defined by the Consumer Product Safety Act. Corrosion of gas service piping was uniform and minimal compared to the thickness of pipes. Some smoke alarms and fire sprinkler heads showed small changes in performance due to accelerated corrosion, but these changes were generally within accepted industry standards.

As a result, CPSC and HUD no longer recommend the removal of gas service piping in homes with problem drywall. This change may reduce the cost of remediation for many homes. In addition, the agencies no longer recommend that glass bulb fire sprinkler heads be replaced in homes. However, the agencies recommend that both glass bulb sprinkler heads and gas distribution piping in affected homes be inspected and tested as part of the remediation to make sure they are working properly; any test failures should be corrected according to all

applicable building codes.

The agencies do recommend the replacement of all fusible-type fire sprinkler heads, because one fusible-type sprinkler head sample that had been exposed to accelerated corrosion did not activate when tested. The agencies note that this type of sprinkler head is generally found in commercial, rather than residential, applications and that the sole failure could not be causally linked to the problem drywall.

In addition, CPSC staff continues to recommend that homeowners replace smoke alarms and carbon monoxide alarms as part of remediation.

### **Exhaustive Investigation**

CPSC's investigation into problem drywall to help affected homeowners began in early 2009 and involved significant agency resources. CPSC's investigation of problem drywall has been driven by sound science and has involved HUD, the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Environmental Protection Agency (EPA) as members of the Federal Interagency Task Force on Problem Drywall.

CPSC and HUD met with deeply-impacted homeowners, responded to correspondence, and kept members of Congress informed about our progress during this time period.

CPSC developed contracts to research and test problem drywall, visited Chinese mines and manufacturers, hosted a public website to keep the public informed about new developments, and devoted thousands of staff hours and millions of dollars to these activities.

As part of the effort to determine if there were any health or safety effects associated with problem drywall, the agency contracted with several highly-respected technical organizations, including Lawrence Berkeley National Laboratory (LBNL), Environmental Health & Engineering Inc. (EH&E), Sandia National Laboratories (SNL), NIST, and the U.S. Geological Survey (USGS).

LBNL used specially-built chambers to measure chemical emissions from drywall samples. In the second phase of its work, which is being released today, [LBNL](#) (pdf) evaluated the effects of different temperature and humidity conditions, as well as the effects of time and coatings of paint or plaster, on the emissions. A [prior LBNL](#) (pdf) study found considerably higher hydrogen sulfide emission rates from some, but not all, Chinese drywall samples compared to North American samples. The current LBNL study found that increases in temperature and humidity corresponded with increased emission rates of the most reactive sulfur gases, that emissions were significantly reduced over time (compared with its prior testing), and that coating the problem drywall samples did not result in differences in emissions compared to uncoated samples.

EH&E conducted CPSC's [51-home study](#) (pdf) on emissions and corrosion in problem drywall homes. The studies identified elevated levels of hydrogen sulfide in problem drywall homes. The studies also showed a strong association between the presence of hydrogen sulfide and metal corrosion in the problem drywall homes.

SNL exposed smoke alarms, electrical components, gas piping, and sprinkler heads to concentrated levels of gases representative of problem drywall emissions, to simulate decades of exposure. SNL analyzed the effects of corrosion on the electrical components and found no degradation in performance and no acute safety events during testing.

NIST analyzed the type and depth of corrosion resulting from the simulated aging, as well as other samples taken from homes with problem drywall, and evaluated whether the corrosion would impact the proper functioning of smoke alarms, gas distribution piping, and fire sprinklers.

Another study being released today, that was conducted by the [USGS](#) (pdf), found no evidence of microbiological activity or a microbiological source of sulfur-gas emissions from gypsum rock or problem drywall, including samples taken from affected homes.

As part of the investigation, CPSC requested that CDC consider undertaking a comprehensive study of any possible long-term health effects. In February 2011, CDC indicated that the best scientific evidence available at

that time did not support undertaking a long-term health study.

### Concluding Our Investigation

To date, CPSC has received 3,905 reports from residents of 42 states and the District of Columbia, American Samoa, and Puerto Rico, who believe their health symptoms or the corrosion of certain metal components in their homes are related to problem drywall. CPSC believes there may be as many as 6,300 U.S. homes with problem drywall.

CPSC has been focused on providing answers and guidance for homeowners based on its scientific work, and other federal agencies have worked to provide relief to homeowners. For example, based on information provided by CPSC, the [IRS](#) allows certain impacted taxpayers whose homes meet the CPSC's problem drywall identification criteria to treat damages from corrosive drywall as a casualty loss, and provides a "safe harbor" formula for determining the amount of the loss. In addition, [HUD](#) advised its Federal Housing Administration-approved mortgage lenders that they may offer forbearance for borrowers confronted with the sudden effects of damaging drywall in their homes.

Going forward, CPSC staff continues to work with voluntary standards organizations to develop improved standards for drywall to prevent this type of problem from reemerging. The standard setting body ASTM International Inc. is also moving to require that all drywall sheets are marked with the manufacturer's name or a unique identification code, the manufacture date, and the source materials.

As the federal investigation into problem drywall concludes, CPSC staff believes that the extensive research and testing have been successful in defining the scope of the problem drywall issue, in producing identification and remediation protocols, and in providing homeowners with all the assistance possible within the agency's jurisdiction and appropriated funds authority. The agency will continue to provide information to and work with members of Congress and agency partners to support policy options that may be beneficial to impacted homeowners.

For additional findings from the Interagency Drywall Task Force's investigation, visit [www.DrywallResponse.gov](http://www.DrywallResponse.gov)

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CPSC is charged with protecting the public from unreasonable risks of injury or death associated with the use of the thousands of consumer products under the agency's jurisdiction. Deaths, injuries, and property damage from consumer product incidents cost the nation more than \$900 billion annually. CPSC is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard. CPSC's work to ensure the safety of consumer products—such as toys, cribs, power tools, cigarette lighters, and household chemicals—contributed to a decline in the rate of deaths and injuries associated with consumer products over the past 30 years.

To report a dangerous product or a product-related injury, go online to: [SaferProducts.gov](http://SaferProducts.gov), call CPSC's Hotline at (800) 638-2772 or teletypewriter at (800) 638-8270 for the hearing impaired. Consumers can obtain this news release and product safety information at [www.cpsc.gov](http://www.cpsc.gov). To join a free e-mail subscription list, please go to <https://www.cpsc.gov/cpsclist.aspx>.

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