



Mississippi State University

Effective Mold and Contaminant Remediation for Flood and Water Damaged Homes



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Prevent, Protect, Respond, Recover

Homeland Security Challenge:

A tremendous amount of research has been carried out identifying methods to make homes more robust and resilient, both new construction and retrofits of existing homes. The results of this work have not been systematically synthesized into a coherent framework and "successful practices" have not been effectively communicated to homeowners. Moreover, little attention has been paid to developing measures that can be taken immediately after a disaster so that the homestead can be made quickly habitable during rebuilding time.

Research Project Solution:

This research project addresses the critical area of mold and contamination from polluted floodwaters or storm damage. The project brings together experts on mold with a team of experts on flood testing, materials durability and chemical pollutants expertise. The objective of this project is to reduce the costs and time associated with recovery from flooding or other water damage inducing natural disasters by developing ways to: a) retrofit existing homes so that they will be more durable and resistant to flood and water damage; b) render the home a safe shelter; and c) rebuild homes so that it is more durable to flood and water damage than before the natural disaster; and d) assess the extent of damage (chemical and biological) that has occurred to homes as a result of a flood or water damage from storm damage or other natural disaster.

National Implications:

The results of this project will be synthesized into "successful practices" and effectively communicated to the water damage restoration industry and homeowners. This will help assure that the correct mitigation approach is used to achieve a healthful post-flood home environment, an expeditious return to the dwelling, and an appropriate cost for the restoration of the structure. The return of homeowners to affected areas will in turn assist the locale with disaster recovery and put less of a demand on FEMA, insurance companies, and other related public and private support agencies. In addition the specific measures that can be taken immediately after a disaster to speed the safe return to the home after a flood will be disseminated to appropriate end-users, stakeholders, and disaster management agencies.



Water damage to homes from hurricanes and floods can be excessive. Mold and pollutant contamination have a lingering influence after these disasters that impedes the health and the return of the homeowners to their dwelling.



Mold growth inside a home after Hurricane Katrina in Gulfport, MS.

www.serri.org

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SERRI is managed by the Department of Energy's Oak Ridge National Laboratory for the U.S. Department of Homeland Security