

Structural Performance of Residential Chimneys in Earthquakes

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Abstract:

This paper provides an overview of the structural performance of residential chimney and fire systems in earthquakes. Improvement of behavior as a result of changes to building codes and construction practices are discussed. Suggestions for earthquake-resistant fireplace and chimney construction are detailed. Also addressed are features of fireplaces and chimneys that most significantly affect structural performance and how these features can conflict with the water penetration resistance and fire safety of these elements. Suggested code requirements and construction details are provided and issues that require further study are identified.

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