ASTM ROLLS OUT UPDATED EARTHQUAKE RISK GUIDANCE

BY BY SHERRY HSIEH

ASTM International, which develops and delivers voluntary consensus standards focused on seismic risk globally, has announced changes to R2026 Standard Guide and E2557 Standard Practice, the industry standards for assessing risk that earthquakes pose to buildings.

"If you are a chief risk officer at a bank with a substantial portfolio of [properties] in Western States or a lender lending to a borrower with properties located in seismically active states - California, Washington, Oregon with the highest risk, a large seismic event could generate a big loss on your portfolio," said Joe Derhake, ceo of consulting firm Partner Engineering and Science, which specializes in engineering and environmental due diligence.

The 16 states carrying the highest earthquake risk are Alabama, Arkansas, California, Hawaii, Idaho, Illinois, Kentucky, Mississippi, Montana, Nevada, Oregon, South Carolina, Tennessee, Utah, Washington, and Wyoming, according to the U.S. Geological Survey's updated U.S. National Seismic Hazard Maps published in 2014. While California is well known for earthquakes, 42 of the 50 states have some potential for earthquakes in the next 50 years.

"Every borrower is required to have fire insurance, but not earthquake. But if you think about it, there are more at risk with earthquakes than fire, because earthquakes happen in clusters," Derhake added.

The standards, which were first introduced in 1999, are intended to evaluate a property's potential losses from earthquakes and assesses the financial risks from earthquake damage to real estate for use in financial mortgage transactions and capital investment. The practice addresses only physical damage to the property.

The revisions stemmed from the need to establish a more consistent way of measuring risk, which included increased time and cost for lenders to fulfill assessment requirements as well as tightened qualification requirements for engineers qualified to perform Probable Maximum Loss building assessments. "Inconsistent assessment have been an issue in the industry, in part because of some of the work has been done by non-engineers; the new ASTM standard should help address this," said Derhake, adding that lenders will likely get a different answer from every engineer they go to.

The standard has four levels of risk: 0, 1, 2 and 3. A higher number correlates with more engineering time and therefore greater building confidence, and the mortgage industry typically asks for a level between 0 to 1. Most lenders do not require earthquake insurance, with the exception of commercial mortgage-backed securities. "We have a small segment of clients who purchase earthquake insurance. The driving reason is its cost relative to other perils such as fire, windstorms and floods, which also receive much more media attention due to their frequency," explained Mariana Domic of Lockton Insurance Brokers.

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JOE DERHAKE, PARTNER ENGINEERING AND SCIENCE

Contrary to their stance on earthquakes, lenders overwhelmingly require borrowers to take out flood and storm insurance for properties located in high risk zones like Florida, Los Angeles, California, New York, and New Jersey. "As an insurance advisor, we encourage our clients to fully understand the financial impact from an earthquake loss and make an informed decision about their risk appetite and tolerance. Armed with this information, we can discuss the best strategy around earthquake insurance", she added.

Indeed, policy makers have rolled out a string of recent regulatory changes addressing building vulnerability to a major earthquake. Both Los Angeles and San Francisco have implemented mandatory seismic retrofit regulations in 2015 and 2013, respectively, with Los Angeles requiring an estimated 15,000 buildings to be retrofitted and San Francisco targeting a 2020 completion date for its Mandatory Soft Story Retrofit Program.