SeismicWaves How the National Earthquake Hazards Reduction Program Is Advancing Earthquake Safety

A Stitch in Time Can Save the Whole Business

The FEMA QuakeSmart Program

If arthquakes and other disasters can be damaging to general business activity, but downright lethal to individual businesses. Surviving enterprises can emerge with a competitive advantage and help their communities recover. But which organizations are more likely to survive? Although smaller or less-well-established businesses are generally recognized to be at greater risk from disasters, firms of any size are more likely to survive when they take action to reduce the costs that such extreme events can inflict.

While it can be tempting to trust in providence to spare people and property from the ravages of an earthquake, it should be noted that "providence" comes from the Latin "providentia," meaning foresight, foreknowledge, or precaution. Helping businesses to foresee the potentially devastating consequences of earthquakes and take sensible precautions to avoid them is the purpose of the Federal Emergency Management Agency's (FEMA) new business outreach program, QuakeSmart—Mitigation Works For Business.

A Pragmatic Approach

QuakeSmart, which FEMA initiated in 2008 in partnership with the nonprofit Safe America Foundation, is based on the proven value of mitigation in regions of the country at risk for earthquakes. Mitigation—actions taken to reduce the risk of losses from earthquakes or other disasters—decreases the threat of death and injury among employees, customers, and others on business premises during such events. In addition, research has shown that mitigation saves businesses an average of \$4 for every \$1 invested, by reducing direct losses from property damage and indirect losses from involuntary downtime.

QuakeSmart is reaching out to businesses in at-risk communities with a practical, three-step approach to earthquake mitigation. In the first step, "Know your risks," business owners and managers consider the ways in which a damaging earthquake could endanger their workers or disrupt their operations and how these potential impacts could threaten the organization's survival. They look at which critical resources must be protected to avoid crippling losses. Crucial assets can vary widely from business to business, from buildings, equipment, and inventory to customer access and staff collaboration. How long could the organization get along without these resources?

By answering these questions, owners can develop recovery objectives—written estimates of how soon after a disruptive earthquake specific assets or capabilities will need to be restored. QuakeSmart then asks owners to "Make a plan" to help ensure that when disaster strikes, recovery objectives can be met. This involves (a) assessing what can be done to mitigate identified risks and limit potential danger, damage, and disruption, and then (b) prioritizing and scheduling this work.



Although much of this planning can be done internally, some may require outside experts. The physical environment in which a business operates is often the richest source of effective mitigation strategies. Such environments include the structural or load-bearing parts of buildings (for example, columns, beams, floors); nonstructural building components such as ceilings, pipes, and heating systems; and the equipment, furnishings, and other contents moved in and out of buildings by owners and tenants. Mitigation activities targeted to building contents, such as anchoring filing cabinets to walls or strapping down computer monitors, can be planned by laypersons guided by publications freely available from FEMA. However, identifying vulnerabilities in-and mitigation measures for-structural or nonstructural building components normally requires consultation with qualified engineers, architects, or builders, and if applicable, with landlords and other tenants.

Besides attending to their physical environment, there are many other things that businesses can do to mitigate risks, particularly risks relating to safety and business interruptions. These actions can range from instituting preparedness training for employees, to securing backup communication or power sources, to developing off-site operational capabilities. Relevant measures will vary across organizations, but regardless of what a business plans to do, QuakeSmart reminds owners and managers that the final step in earthquake mitigation is to take their plan in hand and "Get it done."

Connecting Locally and Virtually

Last fall, QuakeSmart took its message about mitigation on the road, directly to businesses at risk from earthquakes in the Western and Central United States. Ongoing partnerships were established with local chambers of commerce in four cities: Emeryville, California; Reno, Nevada; Cape Girardeau, Missouri; and Evansville, Indiana. These chambers were selected based on their willingness to take steps to promote and maintain awareness of earthquake mitigation among their members.



Bob Canter, president and CEO of the Emeryville Chamber of Commerce in Emeryville, CA. Photo courtesy of FEMA.

In October 2008, QuakeSmart and the chambers cosponsored community business forums in the four cities. These events, presented as free weekday luncheons for chamber members, provided informational materials and presentations on the earthquake hazards faced in each locale, on QuakeSmart's three-step approach to mitigation, and on the benefits, to individual businesses and the community, of business involvement in earthquake mitigation. Mitigation experts from FEMA and the private sector emphasized that communities cannot fully recover from earthquakes or other disasters until their businesses recover. And it can be difficult or impossible for businesses, particularly small and emerging businesses, to survive such events unless they mitigate before disasters arise.

The forums exploded several popular myths, including the notion that mitigation is unaffordable or even that it is unnecessary because government will come to the rescue. Speakers noted that many effective mitigation measures cost very little and that most federal assistance available to qualifying businesses following disasters is provided in the form of loans that must be repaid. The events also introduced the hundreds of businesspeople in attendance to the new QuakeSmart Web site (www.quakesmart.org), which is a rich source of information about the QuakeSmart program, the steps involved in earthquake mitigation, and additional resources that businesses can turn to for more detailed guidance. To accompany the forums, local retailers, including hardware and home improvement stores, set up displays in their establishments with mitigation and preparedness information furnished by QuakeSmart and examples of disaster-preparedness supplies for workplaces and homes.

In the year ahead, FEMA and the Safe America Foundation will extend the reach of QuakeSmart to additional businesses in the Nation's seismically active areas, building upon the successful launch of the program in 2008. Additional forums are being planned for the west coast and Central United States; rather than focusing on single communities, however, these sessions will reach out to businesses across entire regions. The program will also work to maintain, develop, and replicate the partnerships it has established with local chambers of commerce in these regions, and to update and enhance QuakeSmart's Web presence.

For more information, visit <u>www.nehrp.gov</u> or send an email to <u>info@nehrp.gov</u>.







