Senate Concurrent Resolution No. 57

Introduced by Senator Vargas

August 22, 2011

Senate Concurrent Resolution No. 57—Relative to building standards.

LEGISLATIVE COUNSEL'S DIGEST

SCR 57, as introduced, Vargas. Building standards.

This measure would urge the Division of the State Architect, in cooperation with the California Building Standards Commission and the Department of Housing and Community Development, to hold hearings to determine if the building codes subject to a scheduled review should be amended to require the installation of devices that shut off natural gas and electrical power in the event of an earthquake at the time of initial construction and major renovations.

Fiscal committee: yes.

WHEREAS, Recent devastating earthquakes in Japan, New Zealand, Haiti, Chile, Iran, and China have focused Californians on our state's own vulnerability in the face of a major earthquake; and

WHEREAS, California is located on the "Ring of Fire" and is known to be the site of hundreds of active seismic faults, including the San Andreas fault; and

WHEREAS, These major seismic faults run through some of the most populated areas of the state; and

WHEREAS, Seismic activity on these fault lines is continually being detected; and

WHEREAS, On average, 100 seismic events are detected each day somewhere in California; and

WHEREAS, The potential of a major movement along any one of these fault lines presents a potentially catastrophic danger to the health and well-being of the citizens of California; and

WHEREAS, The potential property damage resulting from a major earthquake in a densely populated urban area could reach into the hundreds of billions of dollars, severely damaging the state's ability to sustain its economy; and

WHEREAS, Seismologists estimate that worldwide there are approximately 150 major earthquakes every year; and

WHEREAS, Seismologists estimate that it is a question of when, not if, California will suffer another major earthquake; and

WHEREAS, Since the San Francisco earthquake of 1906, there have been 160 major earthquakes in California which have exceeded 6.0 on the Richter Scale; and

WHEREAS, In the last 25 years, California has experienced the 1994 Northridge earthquake (6.7), the 1989 Loma Prieta earthquake (7.1), and the 2010 Northern Baja California earthquake (7.2); and

WHEREAS, During the 1994 Northridge earthquake 6.7, there were an estimated 110 fires generated by the earthquake, $25 billion in property damage, 57 fatalities, and 8,700 injuries; and

WHEREAS, During the Northridge earthquake, 56 percent of the fires were caused by damaged electrical systems; and

WHEREAS, During the Northridge earthquake, 26 percent of the fires were caused by natural gas ruptures; and

WHEREAS, Fire damage in the 1989 Loma Prieta earthquake 7.1 was responsible for the greatest earthquake-related loss since the 1906 San Francisco earthquake; and

WHEREAS, Fire damage in the Japanese earthquake would have been even more substantial had not the tsunami swept much of the burning and burned buildings away; and

WHEREAS, During the Japanese earthquake, fire consumed almost the entire City of Kensennuma, a city with a prequake population of 70,000 people; and

WHEREAS, The United States Geological Survey (USGS) and the California Geological Survey (CAGS) sponsored a 2007 study of the potential impacts from fire in the event of a major earthquake at the southern end of the San Andreas fault; and

WHEREAS, The USGS- and CAGS-sponsored study predicted that fire damage from a 7.8 earthquake at the southern end of the San Andreas fault would be devastating with: (1) the equivalent

of 133,000 single-family dwellings destroyed, (2) the loss of thousands of lives, (3) property damage in excess of $50 billion, (4) an estimated 1,606 initial fire ignitions that would exceed the ability of the 1,900 fire engines to contain, (5) the uncontained fires would spread to adjoining properties eventually forming several urban firestorms, (6) the tying up of the resources of much needed first responders preventing them from search and rescue operations of people trapped under fallen debris; and

WHEREAS, The City of Los Angeles adopted an ordinance requiring seismic gas shutoff valves on all construction in 1996; and

WHEREAS, The City and County of San Francisco has included in their draft Seismic Safety Plan a mandate for the installation of seismic gas shutoff valves for certain buildings; and

WHEREAS, The projected cost to property insurers from fire damage in a 7.8 earthquake would be between $40 billion and $60 billion, taxing the national insurance industry's financial viability; and

WHEREAS, The fire damage would severely reduce local government revenues from property taxes at a time when financial resources to recover from the earthquake would be most critical; and

WHEREAS, Fires engage first responders' time and attention that could otherwise be utilized rescuing citizens trapped under fallen debris; and

WHEREAS, A major earthquake could damage the water supply system, making it harder to fight fires; and

WHEREAS, A major earthquake could damage roads, making it harder for firefighters to reach earthquake-generated fires; and

WHEREAS, A major earthquake could generate more fires than the current supply of engine companies, making it difficult to contain the fires; and

WHEREAS, A major earthquake could generate fires that would spread rapidly due to the lack of firefighting capacity and would create an urban firestorm threatening entire neighborhoods and communities; and

WHEREAS, Fires from a major earthquake will threaten the safety of citizens and first responders alike; and

WHEREAS, Devices that shut off natural gas lines in the event of a major earthquake have been on the market for many years; and

WHEREAS, Devices that shut off electrical power in the event of an earthquake have been recently developed and patented; and

WHEREAS, Devices that shut off natural gas and electrical power in an earthquake have the capacity to reduce the property damage from fire in a major earthquake; and

WHEREAS, Devices that shut off natural gas and electrical power in an earthquake have the capacity to limit the amount of risk from fire damage for property insurers; and

WHEREAS, Devices that shut off natural gas and electrical power in an earthquake have the capacity to limit the loss of life of citizens; and

WHEREAS, Devices that shut off natural gas and electrical power in an earthquake have the capacity to reduce the threat of fire to first responders; and

WHEREAS, Devices that shut off natural gas and electrical power in an earthquake have the capacity to reduce the demands on first responders to put out fires and free them to concentrate their efforts on search and rescue of people trapped under fallen debris; now, therefore, be it

Resolved by the Senate of the State of California, the Assembly thereof concurring, That the Legislature of the State of California respectfully urges the Division of the State Architect in cooperation with the California Building Standards Commission, and the Department of Housing and Community Development, as a part of the 2012 scheduled triennial building code review, to hold hearings to determine if the building codes should be amended to require the installation of devices that shut off natural gas and electrical power in the event of an earthquake at the time of initial construction and major renovations; and be it further

Resolved, That the Legislature urges the Division of the State Architect in cooperation with the California Building Standards Commission and the Department of Housing and Community Development to, as a part of their deliberations, at a minimum, consider all of the following: (1) the possible inclusion of a requirement for the devices as a part of the next triennial edition of the California Building Standards Code against the development of a model ordinance for local government adoption, or the

development of a pilot program; (2) whether the requirements should be adopted statewide, for all earthquake fault zones, or specified earthquake fault zones; (3) whether the devices should be required for new school construction, installation at the time of school facility renovations, particularly earthquake-related renovations, or for all schools; (4) the technological feasibility of the devices including a consideration of potential false activations; (5) the commercial availability of the devices including current pricing; (6) whether the devices should be capable of being reset by the property owner or the utility; (7) the magnitude of an earthquake that will activate the devices; and (8) the definition of major renovation for the purpose of requiring a building to be retrofit with the devices; and be it further

Resolved, That the Secretary of the Senate transmit copies of this resolution to the Governor, to the Director of the Department of General Services, to the Division of the State Architect, to the Chair of the California Building Standards Commission, to the Director of the Department of Housing and Community Development, and to the author for appropriate distribution.

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