Nortek Air Solutions produces seismic-specific air handling equipment that surpasses the California Department of Health Care Access and Information (HCAI), formerly known as OSHPD, Special Seismic Certification Preapproval certification requirements.

MANUFACTURER OF THE LARGEST HVAC COIL FOR EARTHQUAKE ZONES
THE 1994 NORTHRIDGE EARTHQUAKE CALLS FOR NEW STANDARDS

In 1994, the Northridge neighborhood of Los Angeles, California experienced a severe earthquake. Known as the “1994 Northridge Earthquake”, it reached a magnitude of 6.7 and lasted for a duration of approximately 10-20 seconds. The Northridge earthquake was the highest seismic event ever instrumentally recorded in an urban area of North America and was felt over 200 miles away.

Eleven area hospitals were rendered useless because the mechanical systems of the hospitals failed during this critical time. As a result, new requirements were passed by HCAI that dictated that not only must hospitals remain standing after an earthquake, but the mechanical systems that keep them running must also withstand the earthquake.

With this new standard in place, Nortek Air Solutions met the call.

OSP Testing

For a piece of equipment to qualify for OSP certification, it must be tested to withstand the strongest quake motion ever recorded (which was measured at the epicenter of the 1994 Northridge earthquake). Special earthquake equipment is used to simulate the earthquake motion. Known as a shake table, it exerts gravitational forces by pushing back and forth on the equipment for over 30 seconds.

Although OSP is a voluntary program, manufacturers must have seismic testing performed on their equipment in order to be approved for seismic conditions. Once a manufacturer is approved for OSP, they can submit the approved design to hospital projects in California.

Largest Coil Ever OSP-Tested

Nortek Air Solutions submitted a coil for OSP testing that measured 184 inches long, 114 inches high, 15 inches wide and contained ~169.7 gallons of water. It weighed in at 9,218 pounds. The coil was mounted on the largest earthquake testing equipment in North America.

With enough force exerted to validate compliance, the Nortek Air Solutions coil passed testing with virtually no damage.