Seismic Restraint of Mechanical Systems

This lecture goes over how mechanical systems are seismically braced. This includes piping, ductwork, suspend equipment and floor supported equipment. Other topics discussed are housekeeping pads, building codes, anchorage and specifications. Typical details from the ASHRAE Manual "A Practical Guide to Seismic Restraint" will be discussed.

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Mr. Tauby is Chief Executive Engineer for Mason Industries, Inc., a worldwide leader in the field of noise and vibration control products, as well as seismic and wind restraint systems. He is a professional engineer in 45 states. He holds a Bachelors of Science in Mechanical Engineering from the University of Alabama.

He regularly lectures around the world on topics ranging from vibration isolation, seismic and wind restraint of mechanical systems to the use of elastomeric expansion joints for piping in seismic applications. He was a member of a team of engineers that inspected numerous buildings after the Loma Prieta and Northridge earthquakes. He has been a featured speaker at the American Society of Plumbing Engineers (ASPE) and ASHRAE National Conventions numerous times.

He is a past chairman of ASHRAE's Technical Committee TC-2.7, "Seismic and Wind Restraint Design." He is currently the chairman of ASHRAE Standards Committee SPC 171P, "Method of Test of Seismic Restraints for HVAC & R Equipment." He is currently ASHRAE's liaison to the American Society of Civil Engineers' (ASCE) Wind Load Task Group. He is a member of the Standards Committee for ASHRAE.

He is a member of the "Hanging and Bracing of Water-Based Fire Protection Systems," technical committee for the National Fire Protection Association's (NFPA) NFPA-13. He is a corresponding member of the Building Seismic Safety Council's (BSSC) TS-5, Masonry construction. He was a member of the BSSC "Anchorage Task Group."

He was an editor on FEMA documents 412, 413, & 414 for the installation of seismic restraints on equipment, piping, ductwork, and electrical distribution systems.

He was the lead author on ASHRAE design publication, "A Practical Guide to Seismic Restraint." This publication includes code requirements, specification considerations, seismic restraint connection methods, along with determining whether a piece of outdoor equipment is governed by seismic or wind loads on a particular project.