RE: Seismic Bracing for Sprinkler Systems and Standpipes

To Whom It May Concern:

The provisions of paragraph 9.3.1.1 states “Where water-based fire protection systems are required to be protected against damage from earthquakes, the requirements of Section 9.3 shall apply, unless the requirements of 9.3.1.2 are met. The issue of seismic bracing for fire protection sprinkler and standpipe systems was first addressed by the Georgia State Fire Marshal’s Office in 1999. Section 9.3 describes how to protect a sprinkler system against seismic damage but not geographically where such earthquake protection is required. The seismic zone maps found in Annex A are simply provided for example purposes and are not intended to specify geographically where earthquake features are appropriate.

In general, the seismic maps, Figures A.9.3.1 (a) and (b), indicate the State of Georgia has an extremely low risk of earthquake. This is not to say that an earthquake cannot happen. However, the potential for an earthquake that would impair the sprinkler system or standpipe systems performance is so minimal, that to require earthquake bracing would be an expensive and in our opinion, excessive requirement. Therefore, the Georgia State Fire Marshal’s Office does not require earthquake bracing on fire protection sprinkler or standpipe systems.

The decisions to require seismic protection for sprinkler and standpipe systems are generally determined within the building code requirements, the contract document’s design specifications or are determined by the authority having jurisdiction. This decision is often based upon the past seismic activity of an area not only for its potential for future earthquakes but for the likelihood of physical damage caused by an earthquake which would impair the performance of the sprinkler and standpipe systems. The State’s additional justification for not requiring seismic bracing is that the municipal or county infrastructures supplying these systems outside the building’s structure are not designed to resist seismic activity.

Please note, where building codes are adopted, specific contract document specifications may be written or local ordinances may be adopted to require seismic bracing for these fire protection systems. This opinion does not relieve an individual of contractual obligations based upon such.

Sincerely,

M. Dwayne Garriss
State Fire Marshal