



Evapco is the only tower manufacturer OSHPD pre-approved for cooling towers, closed circuit coolers, and evaporative condensers with a full range of materials and options as shown below:

Unit Characteristics Included in Pre-Approved OSHPD Seismic Certification			
Qualities		Evapco	Others
Unit Type:	Cooling Towers	Yes	Yes
	Closed Circuit Coolers	Yes	None
	Evaporative Condensers	Yes	None
Unit Construction :	Galvanized Steel	Yes	not specified in OSP
	Stainless steel basin w/ galvanized upper	Yes	not specified in OSP
	All Stainless steel	Yes	not specified in OSP
Fan Options:	Standard Fan	Yes	not specified in OSP
	Low Sound Fan	Yes	not specified in OSP
	Super Low Sound Fan	Yes	not specified in OSP
Mounting Options:	Rigidly mounted (Rp=2.5)	Yes	not specified in OSP
	Restrained Vibration Isolation (Rp=2.0)	Yes	not specified in OSP
Location Option:	Roof (z/h = 1)	Yes	Yes
	Grade (z/h = 0)	Yes	Yes

Comparison of Sds		
Units	Sds	z/h:
Evapco AT/USS	1.93	0 = grade
Evapco UT/UAT	1.93	0 = grade
Evapco ATWB	1.93	0 = grade
Evapco ATC	1.93	0 = grade
BAC 3000	1.4	0 = grade
BAC PT2	2.93	0 = grade
Evapco AT/USS	1.93	1 = roof
Evapco UT/UAT	1.93	1 = roof
Evapco ATWB	1.93	1 = roof
Evapco ATC	1.93	1 = roof
BAC 3000	0.9	1 = roof
BAC PT2	1.83	1 = roof

Evapco has the **widest variety and range** of units certified with an Sds up to 1.93. This includes all installations on roof or grade, with or without isolators.

Design Tips for OSHPD Cooling Tower Projects

OSP certification is limited by Sds and is very site specific. The tower must be selected to meet this value.

The following parameters are the limits of OSP certification:

$$Sds = 2/3 * Fa * Ss$$

Where:

Ss = the mapped spectral accelerations for short periods

Fa = site coefficient defined by table 1613.5.3(I) in the code, which depends on the Site Class

Site Class = based on soil properties defined by table 1613.5.2; Site class D is the default.

Usually, the structural engineer will provide all this information for you in the structural S-1 drawings.

Alternatively, one can look up this information and submit it to the engineer of record using EvapSelect or the US Geological Service's web tool at

<http://earthquake.usgs.gov/hazards/designmaps/javacalc.php>