

PROPOSAL 2-8C (2009)

SCOPE: Commentary to Part 1 Proposal to replace 16.1.3.2 of ASCE-7

PROPOSAL FOR CHANGE:

Add Commentary for Section 16.1.3.2 as follows:

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3 One key change to the ground motion design requirements developed by Project '07's Seismic
4 Design Procedure Reassessment Group is the use of use of maximum direction ground motions.
5 In addition to changing the design values defined in Chapter 11 and used throughout the
6 Provisions, implementing maximum direction ground motions affects the previous ground
7 motion scaling rules specified in Section 16.1.3.2. Studies (Maffei and Hashemi) of 50 ground
8 motions of M6.5-M7.9, for both far-field and near-field records and for periods in the range of
9 0.1-3.0 seconds, indicate that the maximum direction of ground motion is slightly less than the
10 SRSS of the two components, with the SRSS spectrum tending to be approximately 1.15 times
11 the maximum direction spectrum. The new requirements in this section close a previous loop-
12 hole in the scaling procedure by requiring the average scaled SRSS spectra to be not less than 1.15
13 times the target design spectrum, and simplifies phrasing of existing language by replacing 10%
14 less than 1.15 times the MCE response spectrum with 1.05 times the target design spectrum. The
15 1.05 comes from $(0.9)(1.15) \approx 1.05$.

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17 The effect of the scaling requirements is illustrated in Figure C16.1.3.2-1.
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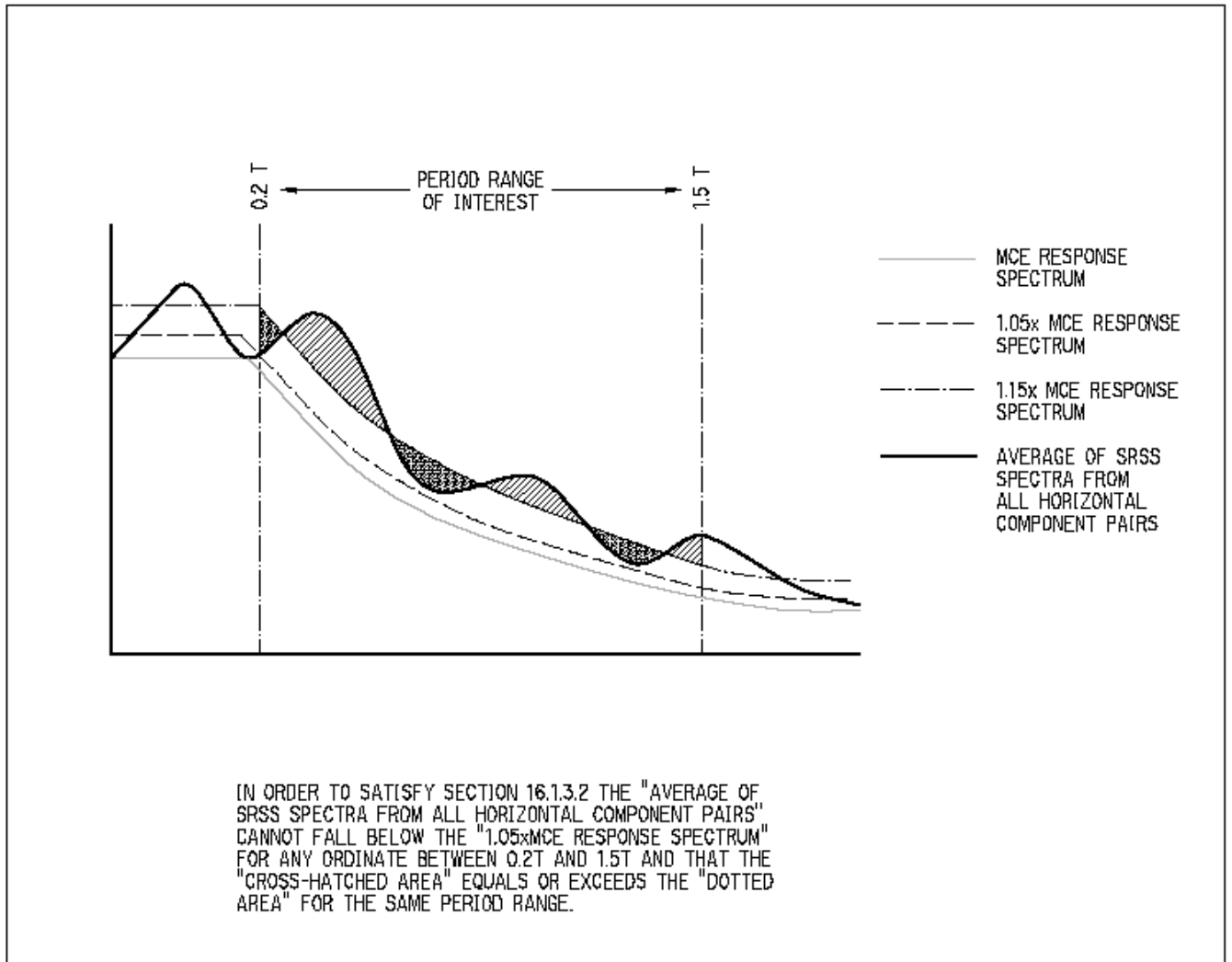


Figure 16.1.3.2-1

REFERENCES

Maffei, J., and Hashemi, A., (2008), Personal Communication.

REASON FOR PROPOSAL:

Commentary is needed to Proposal 2-8, which was passed by the PUC on April 8, 2008.

TS 2 VOTE:

YES = 6 Yes with Reservations = 0 No = 0 Not Voting = 3

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