

MODE = MEMORY TRANSMISSION

START=MAR-17 15:44

END=MAR-17 15:44

FILE NO.=951

STN NO.	COMM.	ABBR NO.	STATION NAME/TEL NO.	PAGES	DURATION
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Items still to be addressed for OPEN ITEM 2.5-1:

Provide residual plots (similar to Figure A-13 in EPRI 2004 report) for each cluster 1 attenuation relationship for a range of frequencies (1 Hz to PGA) along with statistics for misfits (similar to Table A-4 in EPRI 2004) for each frequency value. Show the calculation of the variance (β^2) and final weight for each of the models.

Discuss the expert's decision to not equally weight the attenuation models in view of the comments in the EPRI 2004 report on page 2-3 stating that the goal of the SSHAC approach is to represent "the legitimate range of technically supportable interpretations among the entire informed technical community." SSHAC recommends "simple integration" of the knowledge of the technical community at large whenever possible; in the "rare case" only, "when it becomes obvious that using equal weighting misrepresents the community-as-a-whole," should "explicit quantitative but unequal weights" be used (page 2-4 of EPRI 2004 report).

Concerning the three Silva et al. (2002) attenuation models in Cluster 1, please address the following staff concerns:

- * • As shown in Table 4-3 (EPRI, 2004), the 1 Hz Q value used for the three Silva et al. (2002) models is much lower, while the exponent of the frequency is far higher in comparison to the other attenuation relationships.
- * • The Q value used for the three Silva et al. (2002) models is determined from fitting the Saguenay earthquake as well as site-dependent kappa; this is an underdetermined problem.
- All three Silva et al. (2002) models, which receive a combined weight of 0.9, use the same geometrical spreading, Q function, and lack of Moho reflection. Yet these three models are treated as separate models. This unequal weighting essentially eliminates the other three Cluster 1 attenuation relationships, and therefore misrepresents the range of the informed technical community.
- As a result of the above concern, the path epistemic uncertainty in terms of Q and path (Moho vs. no Moho reflections) is too low for Cluster 1. Specifically, the Q and path choice used by the three Silva et al. (2002) relationships is given a weight of 0.90. Other models in Cluster 1, which model the Q and path differently (include Moho reflections), are only given a combined weight of 0.06.