

**From:** Timothy Johnson  
**To:** INTERNET:dggreen01@mchsi.com; Internet:Rkrich@nefnm.com  
**Date:** 8/9/04 4:49PM  
**Subject:** Fwd: Re: NRC/LES Telecon on Open Issues

Attached are the revised CNWRA questions for the Thurs. telecon.

**CC:** BWS1

**From:** Simon Hsiung <shsiung@cnwra.swri.edu>  
**To:** "Timothy Johnson" <TCJ@nrc.gov>, "David Brown" <DDB@nrc.gov>  
**Date:** 8/9/04 1:22PM  
**Subject:** Re: NRC/LES Telecon on Open Issues

Tim and David:

A last minute review results in a missing item added and several typos fixed. The new version is attached. Please discard the previous attachment. Sorry for the inconvenience.

Simon

Simon Hsiung wrote:

> Tim and David:  
>  
> Rescheduling the subject telecon provided me with an opportunity to  
> revise the questions and comments list I emailed you the other day.  
> The new list (attached) is more focused and complete and more inline  
> with our current understanding of the issues related to SER  
> preparation. If it is possible, I will suggest we use this list  
> instead for the telecon. Thanks.  
>

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## **ADDITIONAL QUESTIONS AND COMMENTS FOR REVIEW OF NATIONAL ENRICHMENT FACILITY SAFETY ANALYSIS REPORT**

### **Seismology**

1. Confirm that the faulting recently discovered at WCS site is not active.
2. The PGA estimated at the National Enrichment Facility site from the 1992 magnitude 5.0 earthquake appears to be more than the PGA estimated from the seismic hazard calculations (refer to Figure 3.2-27).
3. Section 3.2.6.4.1 states that the Nuttli, 1973 (WIPP attenuation model), Nuttli, 1986, and Toro, 1997 attenuation equations are used in the seismic hazard calculations. Results are only shown for the Toro, 1997 and Nuttli, 1973 attenuation models (refer to Table tornado-generated missiles 3.2-29). Why aren't any results shown for the Nuttli, 1986, attenuation model (which is the most conservative model)?
4. Was a background seismicity model used in the hazard calculations?
5. Do the individual curves in Figure 3.2-29 represent the total hazard (i.e. the sum of both local and distant source zones for the particular combination of seismic source zones, attenuation models, b-values and upper bound magnitudes).
6. Figure 3.2-29 shows an additional curve for the Rio Grande Rift Source zone. Was this curve considered in the development of the weighted average hazard result?
7. What weighting scheme was used to obtain the hazard result? How was the weighting scheme determined? Why isn't the most conservative hazard curve used instead (refer to Figure 3.2-29)? The most conservative hazard curve appears to correspond to a maximum magnitude of 6.5 (M<sub>x</sub> 6.5) for the 1931 Valentine earthquake. The maximum magnitude estimated for the 1931 Valentine earthquake is between 6.0 and 6.4.
8. The 10,000 year return period peak horizontal ground acceleration is estimated at 0.15 g. Based on the most conservative hazard curve in Figure 3.2-29 as well as the maximum peak ground acceleration produced at the site by the 1992, magnitude 5.0 earthquake, this PGA appears to be too low.
9. Is the shape of the uniform hazard spectra in Figures 3.2-21 and 3.2-32 a simplified version of the original uniform hazard spectra. Does it envelope the original uniform hazard spectra?

### **Tornado-Generated Missiles**

10. How were the impact velocities with the tornado-generated missiles determined? The "Assessment of Tornado, Tornado Missiles and High Wind Loads at NEF for ISA and Design Basis" report does not provide this information.

### **Propane Explosion on Highway 234**

11. Why limited data (1997–2001) were used in the highway propane explosion hazard risk