

From: Goutam Bagchi *NRA* *NRA*
To: Gareth Parry, George Hubbard, Niles Chokshi *Gas*
Date: Mon, Aug 14, 2000 5:18 PM
Subject: Re: Spent Fuel Pool Decommissioning: Seismic Screening

Gareth,
I am going to try to respond to your comment with my remarks underneath your each of your comments.

Thank you,
Goutam
301-415-3305

>>> Gareth Parry 08/14 4:24 PM >>>
Goutam:

You may notice that these are the same points I made last week.

1. Do we really want to quote the $1.3E-06$ number in this first paragraph since it's an arbitrary choice? Furthermore, don't we want to get away from the 3XSSE and 2XSSE discussion, because it really doesn't have any relevance.

This arbitrarily chosen number is embedded in our published paper. I am simply trying to explain where it came from. Similarly, we need to explain that 3XSSE HCLPF value was selected to ensure that the initiating event is extremely unlikely to occur.

2. Second paragraph in the Current approach section, sentences beginning, "These large uncertainties make it difficult to compare, etc. " I don't think it's necessary to discuss the differences between the seismic risk and the other sources of risk vis a vis uncertainty. If we looked at the internal events we could put a tremendous uncertainty there too, based on the HRA alone. It's enough to say that we need to consider the uncertainties when making a decision. Besides the comparison is somewhat moot given the dominance of the seismic contribution.

Please note that we are talking about the comparison of point estimates. You are the expert on this subject, I can only emphasize that the flatness of the seismic failure probability curve is very important to discuss. Perhaps you could suggest alternative words to incorporate my concern here.

3. Sources of Conservatism, item no.2. The hazard issue is an uncertainty issue, not a conservatism. Sure the LLNL curves are more conservative than the EPRI curves, but who's to say that they are not actually optimistic even? The point is, unless the LLNL hazard curves were deliberately chosen to be based on conservative assumptions related to the inputs it is not correct to characterize them as being conservative.

Please note that a reconciliation project was under taken by the staff in 1993 to remove geophysical incongruities in the earlier LLNL results. We know that the uncertainties in the "a" and "b" values of the M and N curves were treated erroneously. However, the 1993 comparisons were taken to the SSE values. The results obtained by Bob Kennedy utilized hazard estimates obtained by extrapolating the SSE level hazards. If the extrapolations are taken to very low frequency levels, we shall soon reach ground motions that are far too high. I would have to agree with you that this is not a conservatism but an uncertainty. Do you have any suggested wording?

4. In the section entitled Quantification of Uncertainty, isn't what you are talking about conservatism rather than uncertainty?

Yes, I need to take another careful look!

Gareth

6/3/04

CC: David Diec, Diane Jackson, Glenn Kelly, John Hannon, Mark Rubin, Michael Mayfield, Richard Barrett, Robert Rothman, Sher Bahadur(...)