

From: Goutam Bagchi *in en*
To: Gareth Parry, George Hubbard, Glenn Kelly, John Hannon, Joseph Staudenmeier, Mark Rubin, Richard Barrett
Date: Thu, Apr 27, 2000 2:31 PM
Subject: Re: Fwd: VB: Draft Final Technical Study SFP Risks at Decom NPPs

It should be noted that seismic contribution to risk from decommissioned reactors. The use of a design value of 0.1 g earthquake for evaluation of seismic risk does not seem to address the issue. At 0.1 g there should be hardly any damage to the pool structure; consequently, there should be no risk of a zirc fire. The pools are not likely to fail in a catastrophic manner at 0.1 g unless the spent fuel structures in Sweden are constructed very differently. Although they should consider amplification of ground motion for pools located in higher elevations in reactor building etc. Our risk threshold in the report was 3×10^{-6} per reactor year. Perhaps they could perform a calculation of high confidence in low probability of failure (HCLPF) value of their spent fuel pools using 0.2 g as the evaluation level earthquake. The HCLPF value would give them a rough estimate of the probability of catastrophic failure of spent fuel pools. I just cannot see dismissing seismic contribution without doing any evaluation. I have copied their Question# 5 for convenience:

5. An US earthquake response spectra 10-5/year (0.5g) is considered as a 10-7 in Sweden. Does this justify exemption from further consideration, due to low yearly frequency for Zr-fire? The SFP at the Swedish plant is calculated with an earthquake 0.1g, see response spectra Figure 1, and found to comply with the Swedish standard design standard (Boverkets Konstruktionsregler 94, BKR94.

Thank you,
Goutam
301-415-3305

>>> George Hubbard 04/27 1:49 PM >>>
FYI

George Hubbard
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