

**From:** Goutam Bagchi, <sup>NRR</sup>  
**To:** Niles Chokshi, <sup>NRR</sup> Robert Palla, Sada Pullani <sup>RS</sup>  
**Date:** Mon, Sep 18, 2000 1:14 PM  
**Subject:** Re: Fwd: Spent Fuel Letter Report

Bob Palla,

What you are asking for does not admit any unique answer. By now everyone is familiar with the uncertainty associated with prediction of ground motion at a location - the spent fuel pool structure. Earthquakes of magnitude 7.5 with epicentral distances of zero to 10 miles are capable of causing the damage to spent fuel pools we are reviewing. A smaller magnitude earthquake of magnitude 6 to 6.5 at the reactor site could also cause such a damage. As I indicated earlier in some of the discussions with you on the subject, you may want to correlate damage to the ground motion and not the earthquake magnitude.

The answer to your other question on the area of damage, requires a lot of speculation. However, one could assume that ground motion attenuation in the Eastern US is relatively low. It can be speculated that destruction to infrastructure in a 10 mile radius around the site would be substantial. To balance your perspective on this, directionality of observed ground motion is such that within a distance of about one mile, ground motion can be off by a factor 3 to 4.

Thank you,  
Goutam  
301-415-3305

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>>> Robert Palla 09/15 8:06 AM >>>

I think the letter report provided by Dr. Kennedy on pool failure locations and collateral damage is very useful and we shall incorporate it in our report. Do you think it would be possible to have him expand on the following two thoughts in the final (and also renumber the sections):

1. how close would he expect the epicenter to be to the plant in order to produce the PGA needed to fail the SFP?
2. over what distances/areas would the collateral damage occur (relative to the 10 mile emergency planning zone)?

Call me at x1095 if you want to discuss.

**CC:** Glenn Kelly, Robert Rothman

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