Mitman, Jeffrey

From: Mitman, Jeffrey NRR
Sent: Thursday, December 17, 2009 11:00 AM
To: Galloway, Melanie; James, Lois; Vail, James; Ferrante, Fernando
Subject: RE: Notes on Oconee AP for meeting with Mark

My comments are highlighted in red.

Jeff

From: Galloway, Melanie NRR
Sent: Thursday, December 17, 2009 10:45 AM
To: Mitman, Jeffrey; James, Lois; Vail, James; Ferrante, Fernando
Subject: Notes on Oconee AP for meeting with Mark

Please provide any comments on the thoughts below for conveyance to Mark in this afternoon's meeting by 1:30 pm. Thanks.

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Background

DE has requested our assistance in updating the writeup supporting the adequate protection backfit exception on Oconee external flooding. They want to eliminate overtopping and seismic failure modes from the discussion.

Discussion

1. Risk needs to be considered when making an adequate protection case--that is, the risk needs to be significant so as to differentiate AP from backfit (substantiate plant mods from less significant risk)

2. In assessing risk to the units from a Jocassee dam failure, all credible failures need to be considered. Eliminating failure modes while in probabilistic space is parsing data and not appropriate in this case due to the ~~sparse data~~~~lack of technical justification~~.

3. When assessing data on dam failures, probabilities fall in the 10-4 range. This includes all credible failures including overtopping and seismic events.

4. Even if appropriate to parse out overtopping, the probability of dam failure remains in the 10-4 range.

5. Overtopping remains credible because, to remove it from a probability approach, there needs to be a strong deterministic technical basis to conclude it is not credible. That has not been provided as significant questions remain such as inoperability timeframes for the Jocassee turbine units, procedures to release water equivalent to 4' of reservoir height before initiation of PMP storm, etc.

AP Writeup Approach

1. Address significant risk of external flooding (adequate protection) by appropriately calculating, and not parsing data, initiating event frequency of dam failure (which in this case is equivalent to the CCDF value at Oconee for this event).

2. As necessary, focus on the random failure risk.

Other Issues to Forward to DE for Pursuing with Duke

B-58

1. The Duke Nov. 30 sensitivity study/results submittal does not vary reservoir level above full pond level. Duke's PMP (Law Environmental Hydrologic Analysis of 1992) calculation puts reservoir level over 13' above full pond. NRC guidance documents [What document?] reflect that highest water levels need to be assumed. PMPs/higher reservoir levels and dam failure are not independent events.

2. Points in Discussion item 5. above.