Mitman, Jeffrey

From: Galloway, Melanie
Sent: Tuesday, April 13, 2010 9:38 AM
To: Mitman, Jeffrey
Subject: RE: Comments on the NRR Draft Memo: "Supplement to Tech Basis for Allowing ONS to Remain in Operation

Yes.

Mark and I also need further info on the Oconee Risk comparison. Mark was out yesterday, I didn't think what you provided yesterday fit the bill, I talked with him regarding what I thought he/we needed and have just conveyed that to JCircle, who will convey to you. That's a task for today so hopefully you'll have time for the JCO also today or tomorrow.

From: Mitman, Jeffrey
Sent: Tuesday, April 13, 2010 9:27 AM
To: Galloway, Melanie
Subject: RE: Comments on the NRR Draft Memo: "Supplement to Tech Basis for Allowing ONS to Remain in Operation

Melanie, Meena is asking for input into the subject memo. Do I have permission to share with her my comments and work with her to resolve them?

Jeff

From: Galloway, Melanie
Sent: Thursday, April 08, 2010 7:45 AM
To: Cunningham, Mark
Cc: Circle, Jeff; Mitman, Jeffrey; James, Lois
Subject: FW: Comments on the NRR Draft Memo: "Supplement to Tech Basis for Allowing ONS to Remain in Operation

Mark,

I am also forwarding you Jeff's comments on the latest revision to the tech basis for allowing the Oconee units to remain in operation. His points regarding incorrect risk characterization are valid and something we should weigh in on such that this memo is appropriately revised, with the benefit of risk expertise included, before it is finalized.

Melanie

From: Mitman, Jeffrey
Sent: Tuesday, April 06, 2010 6:07 PM
To: James, Lois; Circle, Jeff; Galloway, Melanie
Cc: Ferrante, Fernando
Subject: Comments on the NRR Draft Memo: "Supplement to Tech Basis for Allowing ONS to Remain in Operation

Here are my comments on the subject document a copy of which is attached.

- Antonios Zoulis should be removed from the "contacts" list and from concurrence.
- The purpose of the memo is unclear. In talking with Meena, she indicated that Jack Grobe requested that the August 2009 memo/analysis concluding that ONS was good to operate through November 2011, be reviewed to ensure that based on new knowledge that the conclusions are still valid. I recommend that this be clearly indicated in the new memo's first paragraph.
- On page 2, in paragraph 3, the acronym SSF is used. As this is its first use, it should be defined.

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- Starting on Page 1, the last paragraph states in part: "In addition, based on the new information received from the licensee, specifically with regards to the projected schedules for the interim compensatory measures (ICMs) and the flooding inundation information, the staff is more confident that that continued operation during this period is not inimical to the public health and safety." This is not accurate. The additional 2D analysis indicates that the flooding/inundation is more severe than previously understood from either the 1992 inundation analysis or the March 2009 1D analysis. In addition, the draft (February 2009) ICMs written by Duke assume that there is 5 hours to prepare the site for inundation. The draft 2D analysis from the summer of 2009 indicate that in the worst case analyzed, there could be as little as 3 hours to prepare the site.
- Page 3, last bullet states: "While the current health of the dam combined with ongoing condition monitoring is sufficient to support the staff's assessment to allow a slight increased risk until Duke's implementation schedule is in place, the overall defense-in-depth and adequate safety margins for protecting ONS are deterministic, pending completion of ongoing flood analysis work." The base line internal events CDF for Oconee is about 1E-6 per year. The currently calculated (based on the best available information) CDF from a Jocassee Dam failure is about 2E-4 per year. This is not a slight increas in risk and should not be characterized as such. I recommend changing "... to allow a slight increase in risk ..." to "... to allow a significant increase in risk ..."
- Page 4, second paragraph states: "In evaluating the applicable LIC-504 criteria, the increased risk over the short term when balanced against the defense in depth and safety margin criteria of LIC-504 over the sarne period was deemed acceptable." This paragraph implies that Oconee has defense-in-depth against core damage from a Jocassee Dam failure. This characterization is incorrect. Oconee has no core damage defense against a Jocassee Dam failure (Duke has indicated that all three units will go to core damage if Jocassee fails and inundates the SSF). Therefore, Oconee has no core damage defense-in-depth against a Jocassee Dam failure. Duke has also stated that containment failure will occur between 59 to 68 hours after the dam break but that mitigation actions could be performed after flood water recession (flood water recession is expected to occur about 10 hours after dam failure). However, Duke has supplied no procedures and/or strategies that describe what mitigation strategies might be taken to prevent containment failure. Thus, as of this writing, Duke has no defense or defense-in-depth to prevent containment failure.

The basic argument in this memo is two fold. First, that the increase risk is "slight" and second, that there is sufficient defense-in-depth. Our analysis indicates that the increase in risk is not slight in fact it is over an order of magnitude higher. Our understanding is that ONS has no defense or defense-in-depth to core damage and only a possible defense against containment failure (no defense-in-depth against containment failure). Duke to date has not supplied any documented evidense countering these concerns.

Jeff Mitman