

From: Mark Rubin, *NR*
To: Michael Cheok, Vonna Ordaz, *NR*
Date: Tue, Apr 20, 1999 3:13 PM
Subject: Re: Technical basis outline

Vonna:

I don't really think we can do anything on safeguards given the timeframe and lack of risk modeling for this situation.

I suggest you treat this either policy wise or get the safeguards experts to give you some insights.

I kicked this around with Mike and we think it's not possible for the present scope of the project. If it becomes a showstopper in the future, we can consider possible approaches, but I really think you should deal with it qualitatively with safeguard group insights.

Mark

>>> Vonna Ordaz 04/20 10:48 AM >>>
Thank you very much, Mike.

Also, Glenn mentioned that he was going to address safeguards concerns, since it was part of the scope of the project. I understand that we don't PRA safeguards, but do you know, to what extent that SPSB will be addressing safeguards. Are you going to look at the consequences assuming there was a safeguards event?

Vonna

>>> Michael Cheok 04/20 10:09 AM >>>
Vonna,

Some suggested changes to the "Technical Basis Outline"

Item (II) - SFP Accident Scenarios

- a. Identification of initiating events that could lead to spent fuel uncover (including qualitative screening of events that are not risk significant)
 - Internal events (e.g., LOSP, loss of UHS, loss of CCW/SW, loss of coolant flow, fire, etc)
 - External events (e.g., seismic, tornado/high winds, aircraft impact)
 - Errors of commission (e.g., heavy load drop, maintenance errors leading to draining of pool, etc)
- b. Identification of available systems for the mitigation of the initiating event (plant configuration, system alignment, backup systems available, etc.)
- c. Identification of potential operator recovery actions (availability of alarms, instrumentation, procedures, staffing, etc.)
- d. Formulation of accident sequences
 - success criteria (timing, system flow rates, etc.)
 - accident sequence progression using event trees
 - system modeling and recovery actions using fault trees

Item (III) - Quantification of accident frequency

B/140

- a. Estimate frequency of initiating events that could lead to spent fuel uncover (for each event identified, but not qualitatively screened out in item IIa)
 - existing data (e.g., for LOSP)
 - literature search (e.g., site specific seismic hazard curves, load drops, aircraft impact, tornadoes)
 - fault tree analysis for loss of support system initiating events
 - HRA for errors of commission
- b. Estimate equipment failure probability for active and passive components/systems. Estimate availability of backup systems.
 - information from plant walkdowns
 - AEOD data
 - information from literature
- c. Perform a human reliability analysis to estimate error probabilities for recovery actions.
- d. Quantify fault trees and event trees using best estimate data. Discuss quantification uncertainty in a qualitative sense.

Item (IX) - Recovery and Mitigative Controls

- items A and B are already included in items II and III above. Should therefore delete them from item IX

CC: Glenn Kelly