From: Mark Rubin NRR
To: Michael Cheok, Vonna Ordaz, NRR
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 his either policy wise or get the safeguards experts to give you some insights.

I I kicked this around with Mike and we think its 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 uncovery (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/14D

a. Estimate frequency of initiating events that could lead to spent fuel uncovery (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. Sould therefore delete them from item IX

CC: Glenn Kelly