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From: Beth Wetzel NRR
To: Ian Jung
Date: 12/14/01 8:16AM
Subject: Re: Point Beach

Ian,

Sorry, I did not get to your e-mail before I left the site. So, I was not able to get any documents for you. Sonia Burgess or Ron Langstaff in RIII will have any of the paperwork that the NRC has in their possession.

I did, however, go to the Exit meeting yesterday. It was over an hour and a half, which is the longest exit I've ever been to (and I'm a former inspector and examiner and have been to a lot). It was also extremely well attended by licensee folks and **many** people spoke up to try to refute different NRC assertions.

The following are some of the topics/issues discussed:

- Ron started out summarizing the 2 basic safety issues: (1) loss of FW flow coincident with loss of IA, the operators throttle back on the AFW pumps and lose cooling to the pumps and burnup the pumps because the recirc valves have failed shut. (2) App. R issues: failure of IA or failure of the discharge valves to open (both could be due to fire), 3 fire areas of concern.

- Situation unique to Pt. Beach because the AFW pump recirc valves fail closed on loss of IA.

- Ron painstakingly went through a history of opportunities the licensee had to recognize the issue in the past. My notes have 7 times since 1981! The licensee disagrees that this is a corrective action problem. They discussed some of these instances specifically and said that they may have had an opportunity, but the activity they were doing did not drive them to this specific area. (I think Ron's body of evidence was pretty convincing, not to mention embarrassing to the licensee.)

- Discussion of operator error. Licensee used .3 to .5 human error probabilities for their analysis (pretty high) 'cause no procedural guidance for specific situation.

- SRI noted a recent trend in increase of skill-based operator errors. (Part of the licensee's argument is their operators instinctively know the AFW pumps need min. flow and will check the recirc valve position prior to throttling back flow.)

- Discussion of training. The licensee said they had training on this issue. But, the simulator models the valve closure on loss of IA, but not pump failure. So, NRC asserts that specific issue is not addressed in training. (I agree. If they had training on this issue, the physical plant problem would have been fixed long ago.)

- Risk discussion. NRC has performed a phase II and prelim. determination is **red** finding. Licensee used more advanced analysis (don't think we've seen it) and also determined **red**.
  - Lic. looked at risk assoc. with fire (E-4 range)
  - Lic. looked at risk assoc. with flooding (E-6 range)
  - Lic. looked at risk assoc. with seismic (E-4 range) Note: Seismic is so high 'cause probability for loss of IA is 1.0

- Potential violations:
(1) Criterion 16 - Corrective Actions (Licensee will probably argue this one.)

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(2) Criterion 5 - procedures, EOP for Rx. Trip did not take into account specific plant response. (has since been revised)
(3) App. R, Sect. 3.g.2 - requires 1 train not to be affected by fire
(4) Unresolved Item - operability

- There was considerable discussion re: operability. I believe, the licensee will vehemently disagree with us that the system was ever inop. However, their initial CR said the system was operable. Then 3 days later their CR said "the following comp. measures needed to maintain operability are..." and these were recently implemented comp. measures. So, their paperwork would suggest that they were inop. until recently.

- **Licensee's points re: operability:** (and they were shotgunning us with these)
  - The comp. measures were taken to greatly improve the risk profile, NOT to make system operable.
  - Situation does not fit 91-18 because it involves probabilities and risk, not black and white like a broken piece of equipment. (Mmmm - supplement to 91-18 needed?)
  - Under all scenarios the AFW pumps will deliver sufficient flow. The damage occurs when the operators take action (throttle back on flow). There's a lot of op. actions that can cause equipment to become inop., but we don't consider that equip. to be inop. now. (This may be the licensee's strongest argument. But isn't the system **designed** that you'll have to throttle back on flow? Other systems are not designed to take a potential lethal op. action.)

Conclusions:
- NRC needs to look at operability issue more.
- Great catch by licensee's PRA folks
- 3 potential violations
- 1 potential unresolved item
- Further detailed analysis will probably be performed (phase III) and will re-exit if different conclusions.

Let me know if you have questions, I have more details in my notes.
Beth

>>> Ian Jung 12/12/01 05:02PM >>>
Beth,

I'll be happy to have the licensee's risk analysis. Secondly, any info on operator recovery of IA after a LOOP event, e.g., procedures, training, etc. Is it possible to connect the backup accumulators, which has been valved out decades ago? Any training or procedures for it? The SI results might be useful! Let me know what was discussed during the exit meeting! Have a safe trip back home. Tks. - Ian

>>> Beth Wetzel 12/12/01 04:11PM >>>
Ian,
Is there anything specific that you want me to bring back? Let me know and I'll try to get it. I've been focusing on other licensing and plant issues while I'm out here, so I haven't collected anything pertaining to the AFW pump issue. I will be attending the exit tomorow.
Beth

>>> Ian Jung 12/12/01 04:06PM >>>

Sonia,

I have summarized the AFW/IA issue at Point Beach based on the current info I have. (Sorry no event trees are attached as stated.) It was prepared for myself to focus my event followup on key issues that may impact the risk significance of the issue. My assumptions (mainly on recovery/human actions) in the summary were subjective, yet I tried to be somewhat realistic. I hope I can have more details on my assumptions from either the special inspection findings or the licensee. With no f/b capability (no IPE vulnerability?), no matter how I examine the issue it is of risk significance. Since I am no longer in SPSB, if RIII needs OST support for phase 3 SDP, let Pete know. Pls keep me informed of any updates. Tks. - Ian (Beth: Pls bring as much info. as possible when you come back. Drawings can also help.)