From: Mark Miller / RII
To: ATP1.CWR1 C Rapp, RII
Date: 10/24/96 3:25pm
Subject: Seimens

St. Lucie Large Break LOCA Issue

Timeline

10/10 Licensee receives call from NRR Reactor Systems Branch (SRXB). Bob Jones, Tim Collins, et al inform licensee verbally that the Seimens Large Break Code ('86 Model) has an error. Issue involves code displaying non-physical behavior during the reflood stage. As reflood rates increase from 1 to 1.7 in/sec, heat transfer coefficient decrease. NRR requests affected utilities to propose actions to bring themselves into compliance with 10 CFR 50.46 and to explain those actions at a meeting in OWFN on 10/16. NRR stated that this constituted the licensees' official notification. No reference was made to orders, 50.54(f), etc.

10/16 At meeting, Seimens explained that they dealt with the problem by reperforming analyses with the heat transfer coefficient truncated (clamped) at the 1.77 in/sec value and that the analyses employed a "collapsed liquid" model vice the less conservative "quench time" model. NRR appeared satisfied. FPL's analysis resulted in a loss of about 27 degrees of margin.

10/23 At 1630, NRR contacts FPL and informs them that they have found that the "quench time" model was used and that the clamped heat transfer coefficient methodology was unsat in light of this.

Later that evening, FPL engineer is contacted at home by NRR reiterating that the approach used by FPL wasn't acceptable.

Seimens applies new approach, involving the use of an interpolated value of heat transfer coefficient, obtained between the values corresponding to 1 and 1.77 in/sec, and using the "quench tank" model. Approach takes PCT from 1912 to 2027 F for St. Lucie.

10/24 NRR calls licensee. Tim Collins says he doesn't have a problem with the approach taken by Seimens and asks Weinkam what the basis for continued operation is. Weinkam responds that the issue is being evaluated under their Appendix B program, and operability will be considered under GL 91-18 guidelines. Weinkam emphasizes that he believes that he is in compliance with 50.46 and that the CR process will formalize that position. Collins says NRR needs letter by 10/25 showing the results of the licensee's analysis. Weinkam responds that he cannot respond that quickly, that the Seimens results will require review for proprietary information, will have to be QC'd and reviewed for accuracy under 50.9, and that will take time. Collins responds that unless FPL can produce the analyses by 10/25 a Director's Decision will have to be made based on FPL's inability to show results. Weinkam asks if NRC will be producing any paperwork on the issue. Collins states that he cannot get it out that fast. The discussion then makes several laps around this logic loop.

At the end of the call, FPL states that they will produce a letter indicating their confidence in their compliance with 50.46, that the formal evaluation results will be forwarded when completed, and providing a schedule by 10/25. Collins indicates that this is acceptable.

At 1330, PM informs SRI of a desire by AD/Projects/NRR to speak with Art Stall at 1600 on the issue and describing his intent to contact licensing on the issue. At 1415, Weinkam informs SRI that the call has been arranged between Bohlke and Zimmerman. Weinkam stated that PM said the call would be "one way" and that NRR would inform the licensee as to what to include in the letter.

Miller's Concerns

1. NRR clearly is ratcheting the licensee with not-to-thinly veiled threats of a shutdown order unless the information required is not provided to NRR in one day.

2. While 50.46 contains 30 day reporting criteria for code errors resulting in an error of greater than 50 F. The requirement to report in less than that time is a backfit.

3. NRR is demanding that the licensee perform all of these actions outside the bounds of established processes (e.g. orders) and without regard to 10 CFR 50 Appendix B allowances for time to evaluate the conditions.

4. NRR is willing to accept significantly less than what they originally requested. If the issue is so significant as to require a shutdown order in the absence of analytical results, accepting a statement of compliance with a promise to followup does not serve public health and safety. If it's really that important, we should either have NRR on site inspecting the issue to independently verify satisfactory analyses have been performed or we should shut them down.