

From: Mahesh Chawla
To: Internet:kelly.root@exeloncorp.com
Date: Fri, Feb 16, 2001 11:22 AM
Subject: Request for Technical Specification change relating to BDPS (June 19, 2000 submittal)

Please provide your response to the attached list of staff questions relating to the above amendment. Please let me know if you need to arrange a telephone conference to discuss these.

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CC: Anthony Mendiola, George Dick, Jack Donohew, Ja...

List of questions relating to "Request for Technical Specification change to Revise the Applicability of Technical Specification 3.3.9, "Boron Dilution Protection System (BDPS)"

1. What are the specific operator actions that the licensee is taking credit for (in place of the BDPS) to mitigate a boron dilution event? Are all actions taken from the main control room? If there are any local actions, please describe them. Page 9/27 (attachment E, June 19, 2000 submittal) indicates that, "plant operator action time begins when the VCT high level alarm annunciates and ends when plant operator action would no longer mitigate criticality. This time includes the time necessary to manipulate valves and purge the piping system, before reboration can occur." Is it correct to interpret this statement to mean that the piping system is purged within 15 minutes (or less) from the time the VCT alarm annunciates and the operators initiate manual action (criterion 1, page 6/27)? Please explain.
2. How has the licensee determined that plant operators can reliably perform the required actions in the time allowed to successfully mitigate the event (i.e., there is assurance that all operators can successfully perform the required actions)? How has the licensee considered NRC Information Notice 97-78 ("Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times")?
3. Page 3/27 (attachment E, June 19, 2000 submittal): What is the licensee's basis for assuming that there is reasonable assurance that plant operators will be able to diagnose and mitigate a boron dilution event, in 30 minutes, under conditions where the high VCT alarm fails to annunciate? Also, under these conditions, how does the licensee know that the system will allow the operator to respond in 30 minutes before the inadvertent criticality occurs?
4. As stated in Attachments A, page 5 and E, page 10 of the June 19, 2000, submittal, the safety analysis performed for the proposed TS change related to the BDPS assumed at least one RCP is operating and all loop stop valves are open for Modes 3, 4, and 5, thus assures proper mixing of the reactor coolant

throughout the full RCS volume. Since the plant condition of at least one RCP operating and all loop stop valves open satisfies the TS inclusion criterion 2 of 10CFR 50.36 as an initial condition of a design basis transient, why is it not included in TS LCO? There should also be an action requirement to isolate potential boron dilution source if this LCO is not met.

5. How would the TRM requirement of at least one RCP operating for Modes 3, 4 and 5 reconcile with the restriction of LCO 3.4.6 (Mode 4) and 3.4.7 (Mode 5), which specify that no RCP shall be started with one or more RCS cold leg temperature $\leq 275\text{F}$ unless the secondary side water temperature of each steam generator is $\leq 50\text{F}$ above each of the RCS cold leg temperatures? (This restriction is needed for low temperature overpressure protection during Modes 4 and 5 operation.)

M a i l E n v e l o p e P r o p e r t i e s
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