

## Request for Supplemental Information on ESBWR Chapters 15 and 16

### Comment on response to RAI 16.2-33 (MFN-07-024)

With regard to the feedwater control system (FWCS), GE's response to RAI 16.2-33 states that "The responses to RAI 15.0-2 and RAI 16.0-1 indicated that this system is not in the primary success path for mitigating transients and accidents because operation of this nonsafety-related system provides protection of the turbine and provides only additional margin to the acceptance criteria for applicable events. However this does not accurately represent the content of the response to RAI 15.0-2 which states that "function of this system is modeled or assumed in several AOO and Infrequent Events to control water level by controlling feedwater flow and therefore mitigates the severity of the events."

(A) Please address this discrepancy.

(B) If the FWCS is credited in the analysis and needed to mitigate a transient, infrequent event or accident, it should be included in the TS in accordance with 10 CFR 50.36(c) Criterion 3.

(C) If the FWCS is not needed to mitigate any transient, infrequent event or accident, then clearly document this conclusion in the DCD and provide supporting analysis.

### Comments on responses to RAI 15.0-2 (MFN-06-331)

(A) GE's response to RAI 15.0-2 states "Control Rod Drive System (CRDS): The high pressure makeup water function of this system is credited in several event scenarios as backup level control to feedwater. This function of CRDS is nonsafety-related. If credit is not taken for the high pressure makeup water function of the CRDS, then the Isolation Condenser System and Gravity-Driven Cooling System would ensure acceptable inventory control." GE's response to RAI 16.2-33 stated that "Both the RAI 15.0-2 and the RAI 16.0-1 responses indicated that this function is not in the primary success path for mitigating transients and accidents because the safety-related isolation condenser and gravity-driven cooling system will ensure water inventory is maintained within the acceptance criteria for the applicable event even if the nonsafety-related CRD system makeup water function failed." The DCD should be revised to include this information and to include the results of analysis that support this conclusion.

(B) Add a Table in Section 15.0 of the DCD Tier 2 listing the following non-safety related equipment that is credited in the AOO, infrequent event and/or accident analyses:

Control Rod Drive System -Makeup Water  
Control Rod Drive System-SCRRI (Included in the TS)  
Fuel and Auxiliary Pool Cooling System  
Feedwater Control System  
RC& IS (RWM and ATLM are included in the TS)  
Steam Bypass and Control System ( Included in the TS)

### Comment on response to RAI 16.2-75 (MFN-07-024)

The bases discussion regarding the applicable safety analyses for TS 3.1.1, Shutdown Margin, presents the Control Rod Withdrawal Error (RWE) during refueling as the event basis for the shutdown margin (SDM) LCO. Confirm whether RWE during refueling is more limiting than

RWE at start up or low power. If RWE at start up or low power is more limiting, then the reference should be changed to RWE during start up; that is, change DCD reference from Section 15.3.7 to 15.3.8. (See staff RAI 15.3-33 regarding analysis of the RWE event during power operation.

Comment on response to RAI 16.2-97 (MFN-07-024)

In its letter response to RAI 16.2-97, MFN 07-024, the applicant stated it had added response time testing of the ECCS actuation logic with SR 3.3.5.2.2, "Verify the ECCS RESPONSE TIME of each required division is within limits." The associated TS bases for this SR does not explicitly describe the ADV and DPV "timers" as being included in the surveillance. The bases for TS 3.3.5.2, "ECCS Actuation," mention "timers" once in the third paragraph of the background discussion and once in the third paragraph of the LCO discussion. The staff does not concur with the applicant's contention that ADS and DPV timers are implicitly included in the TS because it does not find that testing the timers is clearly included in SR 3.3.5.2.2. Since the timers are very critical for the function of ECCS, timers should be included in the TS explicitly.