

**From:** Sebrosky, Joseph  
**Sent:** Wednesday, June 20, 2012 7:03 AM  
**To:** 'Soenen, Philippe R'  
**Cc:** 'Baldwin, Thomas (DCPP)'; Gardocki, Stanley; Lapinsky, George; Lent, Susan; Burkhardt, Janet  
**Subject:** Request for additional information related to DC LAR Regarding auxiliary feedwater system technical specification changes (ME6360 and ME6361)

Philippe,

By letter dated June 1, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11530114), Pacific Gas and Electric Company (PG&E) submitted PG&E Letter DCL-11-059, "License Amendment Request 11-04, Revision to Technical Specification (TS) 3.6.6, 'Containment Spray and Cooling Systems,' TS 3.7.5, 'Auxiliary Feedwater (AFW) System,' TS 3.8.1, 'AC Sources - Operating,' TS 3.8.9, 'Distribution Systems - Operating,' and TS Example 1.3-3."

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in your application and determined that the following additional information is required in order to complete its review. This request for additional information (RAI) was discussed with you on June 19, 2012. It was agreed that a response to this RAI would be provided by August 2, 2012. Should the NRC determine that this RAI is no longer necessary prior to this date, the request will be withdrawn. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1132 or via e-mail at [joseph.sebrosky@nrc.gov](mailto:joseph.sebrosky@nrc.gov). The NRC staff has determined that no security-related or proprietary information is contained herein.

### **REQUEST FOR ADDITIONAL INFORMATION**

1. Are there any changes to, additions to, or deletions of operator actions proposed in the License Amendment Request (LAR), other than those listed below?
  - a. Manual operation of one or more Level Control Valves (LCVs) after the loss of Auxiliary Feedwater (AFW) automatic operation.
  - b. Operator action to provide pump run-out protection if in manual control.
  - c. Manual action by the plant operator to terminate flow from the Turbine- driven Auxiliary Feedpump to a depressurized steam generator.
2. If yes, describe the additional actions, changes, or deletions, and identify the associated TSTF and the scenario in which the action is required.
3. Are there any changes to, additions to, or deletions of procedure steps required to support the LAR?
4. Are there any changes to, additions to, or deletions from training required to support the LAR?

5. Are there any changes to, additions to, or deletions to the simulator required to support the LAR?
6. Are any modifications to the Main Control Room or alternate shutdown panel required to support the LAR?
7. What cues (alarms, annunciators, indications) alert operators that action is required?
8. What instrumentation will be used by operators to control processes of interest within the required band of operation?
9. How will operators know when actions identified in your response to Question 1 are no longer needed?
10. How were the actions that were identified as supporting the LAR confirmed as feasible, reliable, and timely? If a proceduralized verification and validation (V&V) program was used, provide the procedure number, title, and a short description of the procedure.
11. Will the Safety Parameter Display System be affected by the LAR?
12. Was a Human Reliability Analysis done in support of the LAR? If yes, what insights were applied to make the operators more likely to succeed, and to make errors more easily recovered?
13. Mention is made in the LAR of assigning an operator to monitor and control AFW when the system is in manual control. Explain how this "assignment" will affect the operators' normal duties; e.g., will the operator be "dedicated" to manual operation of AFW with no other duties? Or will the operator be required to perform his other duties while focusing on AFW control?
14. Will operator roles change during design basis accidents as a result of assigning an operator to manually control AFW?
15. In FSAR Section 15.4.3.2.1, SGTR Margin to Overfill (MTO) Analysis, the licensee identifies that the limiting single failure is a failure of an AFW control valve to close. No discussion of the event was provided in the June 1, 2011, submittal. The licensee proposes to replace automatic actions with manual actions for the AFW FCVs in the event of a card failure. The licensee proposes to position the AFW FCV full open. In a full open position and no automatic throttling close, there may be an adverse affect associated with the evaluation of a SGTR MTO with the other AFW FCV going open being the limiting single failure. The staff requests the licensee evaluate the proposed conditions of a card failure, in conjunction with the limiting single failure of an AFW FCV control valve to close and demonstrate adequate margin to steam generator overfill still exists. Identify operator actions and times for this condition.