

October 3, 2001

Mr. Garry L. Randolph
Vice President and Chief Nuclear Officer
Union Electric Company
Post Office Box 620
Fulton, MO 65251

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RE: RISK-INFORMED
INSERVICE INSPECTION APPLICATION FOR CALLAWAY PLANT
(TAC NO. MB1205)

Dear Mr. Randolph:

By letter dated February 16, 2001 (ULNRC-4392), you submitted a request for relief from Section XI examination requirements of the American Society of Mechanical Engineers (ASME) Code for inservice inspections (ISI) of Class 1 and 2 piping welds. The proposed alternative of a risk-informed ISI program is to provide an acceptable level of quality and safety in accordance with 10 CFR 50.55a(a)(3)(i).

The enclosed information is needed for the staff to complete its review of your application. To expedite the staff's review to meet the agreed upon schedule, the request for additional information was provided to your staff by e-mail on September 25, 2001. Any difference between the enclosed questions and the e-mail is editorial. In a call on the questions with your staff, they agreed to submit the responses to the questions by October 26, 2001. If the responses are submitted by that date, the staff expects to issue its evaluation on schedule. If you have any questions, contact me, lead project manager, at 301-415-1307, or at jnd@nrc.gov through the internet.

Sincerely,

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure: Request for Additional Information

cc w/encl: See next page

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Sincerely,

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Request for Additional Information

cc w/encl: See next page

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ACCESSION NO.: ML012690282

* RAI received by e-mail dated 09/25/01

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Callaway Plant, Unit 1

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REQUEST FOR ADDITIONAL INFORMATION

UNION ELECTRIC COMPANY

CALLAWAY PLANT

RISK-INFORMED INSERVICE INSPECTION

DOCKET NO. 50-483

The following are questions on the risk-informed inservice inspection (RI-ISI) submittal dated February 16, 2001, for relief from Section XI examination requirements of the American Society of Mechanical Engineers (ASME) Code for Class 1 and 2 piping welds at Callaway Plant:

1. Will the RI-ISI program be updated every 10 years and submitted to the NRC consistent with the current ASME XI requirements?
2. Under what conditions will the RI-ISI program be resubmitted to the NRC before the end of any 10-year interval?
3. Page 8 of the submittal presents the criteria for engineering evaluation and additional examinations if unacceptable flaws or relevant conditions are found during examinations. The submittal states that the evaluation will include whether other elements in the segment or segments are subject to the same root cause conditions. The submittal further states that additional examinations will be performed on these elements up to a number equivalent to the number of elements required to be inspected on the segment or segments initially. Please address the following:
 - (a) Please clarify the term "initially". Specifically, does it refer to inspections planned for the current outage or the current interval?
 - (b) Please clarify how will the elements be selected for additional examinations. Specifically, please verify that the elements will be selected based on the root cause or damage mechanism and include high risk significant as well as medium risk significant elements (if needed) to reach the required number of additional elements.
4. Page 4 of the submittal states that a deviation to EPRI RI-ISI methodology has been implemented in the failure potential assessment for thermal stratification, cycling and striping (TASCS). Please state if your revised methodology for assessing TASCS potential is in conformance with the updated criteria described in the EPRI letter to NRC dated March 28, 20001. Also, please confirm that as stated in the subject letter, once the final materials reliability program (MRP) guidance has been developed, the RI-ISI program will be updated for the evaluation of susceptibility to TASCS, as appropriate.

5. Page 13 of the submittal states that Callaway is in the second period of the second interval. The submittal further states that 37.7 percent of the ASME XI examinations have been completed thus far, and therefore 62.3 percent of the RI-ISI examinations will be performed during the remaining interval so that 100 percent of the selected examinations are performed during the course of the interval. Specify which 62.3 percent of the RI-ISI examinations will be performed and what will be the basis of the selection.
6. Appendix A (Technical Evaluation Report, Front End Analysis) of the staff evaluation report (SER), issued by letter dated September 14, 1999, for the Callaway Individual Plant Evaluation (IPE), notes that the licensee implemented several plant enhancements that were not credited in the IPE. These enhancements include: procedural and hardware changes to allow feed of depressurized steam generators from diesel-driven fire pump, addition of procedural guidance to re-establish normal service water if essential service water fails, addition of procedural guidance to verify residual heat removal (RHR) pump room cooling at switchover to emergency core cooling system (ECCS) recirculation phase, and replacement of the positive displacement charging pump (PDP) with a third centrifugal charging pump (CCP). Were these or other enhancements credited in the 1999 Probabilistic Risk Assessment (PRA) used to support the RI-ISI submittal? Appendix A of the SER also notes that an enhancement to provide a switch to bypass feedwater isolation in order to restore main feedwater was scheduled for Fall 1996. Was this modification performed and was it credited in the 1999 PRA?