Ameren MISSOURI

Callaway Plant

August 8, 2012

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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Ladies and Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
FACILITY OPERATING LICENSE NPF-30
SPECIAL REPORT 2012-01 – PAM REPORT
INOPERABILITY OF A POST ACCIDENT MONITORING (PAM) INSTRUMENT FOR GREATER THAN 30 DAYS

The "B" train of the Reactor Vessel Level Indicating System (RVLIS) has been inoperable for greater than the 30 days allowed by Technical Specification (TS) 3.3.3 Condition A. TS 3.3.3 Condition B requires submittal of a PAM report in accordance with TS 5.6.8, PAM Report.

No new commitments are identified in this correspondence. None of the material in this report is considered proprietary by Union Electric.

If you have any questions or require additional information, please contact Mr. Thomas Elwood, Supervising Engineer, Regulatory Affairs and Licensing at 314-225-1905.

Sincerely,

David W. Neterer
Plant Director

CSP/nls

Enclosure

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Special Report 2012-01
PAM Report

Requirement

Callaway Plant Unit 1 Technical Specification (TS) 3.3.3, Post Accident Monitoring (PAM) Instrumentation, contains requirements for Reactor Vessel Level Indicating System (RVLIS) instrumentation. TS 3.3.3 Limiting Condition For Operation (LCO) requires two channels of RVLIS instrumentation to be Operable while in MODES 1, 2, and 3. With one of the required RVLIS instruments inoperable for more than 30 days, Required Action B.1 specifies "Initiate action in accordance with Specification 5.6.8."

TS 5.6.8, PAM Report, states: "When a report is required by Condition B or F of LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status."

Summary of the PAM Instrument Inoperability

On June 27, 2012, during the performance of RVLIS loop calibration surveillance procedure, the Loop 3 hot leg wide range temperature input to the "B" Train RVLIS cabinet was found to be out of tolerance. Following troubleshooting, the associated circuit card was replaced. It was then determined that this condition was still present with the replacement circuit card installed. Inspection identified that the circuit card receptacle was cracked. The card installed in this slot was secured with its two hold down screws and an erratic response of the card output observed. The circuit cards were verified to be within width specifications.

Preplanned Alternate Method of Monitoring

There are two alternate means of monitoring for the out of service "B" Train RVLIS channel: 1) Availability of the Operable "A" Train RVLIS channel and. 2) From TS Bases 3.3.3 Required Action F.1: Monitoring the core exit thermocouples, pressurizer level indication, and Reactor Coolant System subcooling monitor indication. These three parameters provide diverse information to verify there is adequate core cooling.

Cause of the Inoperability

The cause of the erratic performance of this card has been determined to be associated with the card edge connector at the back of this circuit card rack. Based on the resistance required to install the card in one of the spare connectors, and additional cracking identified on other connectors within the 32-slot rack, the connectors in this rack appear to be below normal width specifications. Based upon industry operating experience, minor cracking of these connectors alone is not considered sufficient to cause the erratic performance identified. Therefore, further troubleshooting of the individual connector is being pursued.

Plans and Schedule for Restoring the Instrumentation Channel to OPERABLE status

Based on this preliminary evidence, a decision was made to replace the entire circuit card rack versus replacing an individual connector or rewiring the circuit to a spare slot within this rack. The rack replacement occurred between July 20 and July 26, 2012 with the goal of restoring RVLIS to service by July 27, 2012. The RVLIS cabinet was re-energized on July 26, 2012 with post maintenance testing scheduled for July 27, 2012. However, on the morning of July 27, 2012 an unexpected inverter transfer occurred for which the RVLIS cabinet was considered to be the most probable cause. A decision was made to downpower the cabinet again in order to troubleshoot the cause of the inverter transfer. To date, no concerns with RVLIS cabinet performance have been identified; however additional testing is being pursued prior to cabinet restoration. Restoration of normal power to the cabinet and testing of RVLIS will be completed prior to declaring the RVLIS channel operable. This is expected to occur within the next 90 days.