

April 5, 2004

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop P1-137
Washington, DC 20555-0001

ULNRC-04974

Ladies and Gentlemen:



**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
FACILITY OPERATING LICENSE NPF-30
APPLICATION OF PROPRIETARY
LEAK-BEFORE-BREAK (LBB) METHODOLOGY
REPORTS AND DRAFT REGULATORY GUIDE DG-1108**

- References:
1. ULNRC-04868 dated June 27, 2003
 2. ULNRC-04926 dated December 9, 2003
 3. ULNRC-04939 dated January 14, 2004

In Reference 1 above, AmerenUE transmitted an application for amendment to Facility Operating License No. NPF-30 for the Callaway Plant. References 2 and 3 above provided the responses to several NRC requests for additional information.

During teleconferences on April 1 and April 2, 2004, additional issues were discussed regarding 1) the application of the American Society of Civil Engineers (ASCE) Standard 4-86 "100-40-40" method for seismic load combination and 2) the extent of the NRC approval of WCAP-15983-P Revision 0 for the pressurizer surge line.

Regarding the first item, Reference 1 (at the bottom of page 10 and continued on the top of page 11 in Attachment 1) is supplemented with the following information. AmerenUE has successfully analyzed the proposed modification to the secondary shield wall for the existing steam generators (SGs) using:

- the current licensing basis methodology for combining the orthogonal components of earthquake motion (i.e., using the SRSS method per Regulatory Position C.2.1 of RG 1.92, Revision 1, February 1976), and

A001

- NRC approval of the submitted Leak-Before-Break (LBB) topical reports that allows us to exclude dynamic effects of line breaks in the analyzed RCS branch lines (pressurizer surge line, accumulator injection lines, and RHR hot leg suction lines) from the structural design basis of Callaway Plant, with the exception of the surge line piping in the vicinity of the Alloy 82/182 nozzle safe end weld location at the base of the pressurizer.

Since the ASCE 4-86 "100-40-40" methodology is not needed for this particular modification and associated license amendment, application of that methodology will be the subject of future correspondence with the NRC staff.

Regarding the second item, AmerenUE withdraws our request for approval to apply LBB for the entire pressurizer surge line. The pressurizer nozzle safe end weld at the base of the pressurizer is an Alloy 82/182 weld. AmerenUE amends our application to include the pressurizer surge line, with the exception of this one specific location.

The LBB analysis for the pressurizer surge line is documented in Westinghouse Electric Company's proprietary report, WCAP-15983-P, Revision 0. AmerenUE understands that typically LBB is approved for the entire line, and that the analysis documented in WCAP-15983-P is for the entire line, from anchor point to anchor point. However, as discussed above, our amended request now excludes the piping in the vicinity of the pressurizer nozzle safe end Alloy 82/182 weld location.

Our analysis currently assumes and evaluates a postulated pipe break in the surge line piping at the Alloy 82/182 weld location. This analysis, which demonstrates that a break at the Alloy 82/182 weld location does not cause a consequential failure at any other location along the pressurizer surge line, remains valid. Additionally, the analyses currently being performed considering the plant configuration after the replacement steam generators are installed, will also consider a postulated break at the Alloy 82/182 weld location.

Also, specific to the upcoming Refuel 13 outage, the planned modification for the secondary shield wall is not adversely affected. The structural analysis has been completed for the 'C' loop secondary shield wall after cutting the permanent access opening. Assuming that dynamic effects can be excluded from the structural design basis via the successful application of the LBB methodology, with the exception of the piping in the vicinity of the pressurizer nozzle safe end Alloy 82/182 weld, our analysis indicates that all concrete and reinforcing steel stresses, including reinforcing steel development length, still meet the applicable ACI 318-71 acceptance criteria for the existing SG loads.

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Along with the analyses postulating a break at the pressurizer surge line nozzle safe end Alloy 82/182 weld location, AmerenUE will continue to maintain all required plant equipment and structures, including pipe whip restraints, to address an assumed failure of the pipe at the weld location.

The conclusions of the No Significant Hazards Consideration (NSHC) in Reference 1 remain unchanged. The scope of the original NSHC bounds that of this amended application since AmerenUE has withdrawn our request for approval to apply LBB for the piping in the vicinity of the Alloy 82/182 pressurizer nozzle safe end weld location at the base of the pressurizer. FSAR mark-ups submitted in Attachment 3 to Reference 1 will be revised to reflect this amended application when the FSAR is updated pursuant to 10 CFR 50.71(e).

If you have any further questions on this amendment application, please contact us.

Sincerely,

A handwritten signature in black ink that reads "Keith D. Young". The signature is written in a cursive style with a large, stylized "K" and "Y".

Keith D. Young
Manager, Regulatory Affairs

KDY/TEH/WMC/BEH/GGY/jdg

STATE OF MISSOURI)
)
COUNTY OF CALLAWAY)

SS



Keith D. Young, of lawful age, being first duly sworn upon oath says that he is Manager, Regulatory Affairs, for Union Electric Company; that he has read the foregoing document and knows the content thereof; that he has executed the same for and on behalf of said company with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By Keith D. Young
Keith D. Young
Manager, Regulatory Affairs

SUBSCRIBED and sworn to before me this 5th day of April, 2004.

Cathy J. Crisp
Notary Public
State of Missouri
Expiration 1-29-06

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