



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 12, 2013

LICENSEE: Union Electric Company d/b/a Ameren Missouri

FACILITY: Callaway Plant, Unit 1

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON  
DECEMBER 6, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY  
COMMISSION AND UNION ELECTRIC COMPANY (AMEREN MISSOURI),  
CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING  
TO THE CALLAWAY PLANT, UNIT 1, LICENSE RENEWAL APPLICATION  
(TAC. NO. ME7708)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Union Electric Company (Ameren Missouri) the applicant held a telephone conference call on December 6, 2012, to discuss and clarify the staff's requests for additional information concerning the Callaway Plant, Unit 1, license renewal application.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a description of the staff concerns discussed with the applicant. A brief description on the status of the items is also included.

The applicant had an opportunity to comment on this summary.

A handwritten signature in black ink, appearing to read "S. Cuadrado de Jesús".

Samuel Cuadrado de Jesús, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:  
As stated

cc w/encls: Listserv

SUMMARY OF TELEPHONE CONFERENCE CALL  
CALLAWAY PLANT, UNIT 1  
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS  
December 6, 2012

<u>PARTICIPANTS</u>	<u>AFFILIATIONS</u>
Samuel Cuadrado de Jesús	U.S. Nuclear Regulatory Commission (NRC)
Bill Rogers	NRC
Angela Buford	NRC
Garry Armstrong	NRC
Edward Smith	NRC
John Tsao	NRC
Chakrapani Basavaraju	NRC
Sarah Kovaleski	Union Electric Company (Ameren Missouri)
Andrew Burgess	Ameren Missouri
Nicole Green	Ameren Missouri
Sharon Merciel	Ameren Missouri
Dave Shafer	Ameren Missouri
Eric Blocher	STARS
Ken Bryant	STARS
Trent Russell	Show Me Quality Consulting

SUMMARY OF TELEPHONE CONFERENCE CALL  
CALLAWAY PLANT, UNIT 1  
LICENSE RENEWAL APPLICATION  
December 6, 2012

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Union Electric Company (Ameren Missouri) the applicant held a telephone conference call on December 6, 2012, to discuss and clarify the following draft request for additional information (RAIs) concerning the Callaway Plant, Unit 1, license renewal application (LRA).

**Draft RAI 2.1-2a**

Background

Title 10 of the *Code of Federal Regulations* (10 CFR) 54.4, "Scope," states, in part:

(a) Plant systems, structures and components [(SSCs)] within the scope of this part are –

(1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions –

- (i) The integrity of the reactor coolant pressure boundary;
- (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
- (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.

(2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (a)(1)(i), (ii), or (iii) of this section.

Issue

The staff issued RAI 2.1-2, dated July 9, 2012, which requested, in part, for Ameren Missouri to describe the process used to identify and evaluate safety-related piping components located within the turbine building for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(1) and nonsafety-related SSCs located in the turbine building, whose failure could impact safety-related SSCs, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2).

The applicant's response to RAI 2.1-2, dated August 9, 2012, did not include sufficient information related to the locations of the safety-related to nonsafety-related interface locations and the specific portions of safety-related pipe, nonsafety-related pipe, and nonsafety-related bounding conditions included within the scope of license renewal, to enable the staff to

complete its review. The staff noted that Appendix F of NEI 95-10, "Industry Guidelines for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," endorsed by Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," states, "for non-safety SSCs directly connected to safety-related SSCs (typically piping systems), the non-safety piping and supports, up to and including the first equivalent anchor beyond the safety/non-safety interface, are within the scope of license renewal per 54.4(a)(2)."

### Request

The staff requests that the applicant identify for the following the portions of the main steam supply system, the main feedwater system and the steam generator blowdown system that extend from the auxiliary building into the turbine building:

- the specific location of the safety-related to nonsafety-related interface
- the specific portion of safety-related pipe that is included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1)
- the specific portion of nonsafety-related pipe, attached to the safety-related pipe, up to and including an anchor, equivalent anchor or bounding condition (on the nonsafety-related side of safety-related to nonsafety-related interface), that is included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2)

The staff requests that the applicant perform a review of this issue and indicate if the review concludes that the use of the scoping methodology precluded the identification of SSCs that should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs included within the scope of license renewal as a result of the review, and any structures and components (SCs) for which aging management reviews were performed. For SCs for which aging management reviews were performed, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

**Discussion:** The staff stated that it has technical and also methodology concerns with the applicant's scoping of the safety-related piping components located within the turbine building. Therefore, in addition to Division of License Renewal staff, there were also staff members from the Division of Engineering and the Division of Safety Systems to support the discussion of the staff's technical concerns.

The staff requested the applicant to describe their evaluation of the safety related piping within the turbine building. The applicant stated that it performed an initial evaluation to specify that the portion of the piping that extends into the turbine building serves no safety related function and as a result the applicant is revising its plant drawings to indicate this piping doesn't serve any safety related function and that the safety related function of this piping ends at the auxiliary building/turbine building wall interface. The applicant also stated that a prior analysis was done that moved the safety related boundary from inside the turbine building back to the auxiliary building/turbine building wall interface.

The staff asked the applicant to explain whether the wall is fully anchored or if it only provides torsional restraint. The applicant stated that the main steam and main feedwater pipe lines go through a torsional restraint when they go through the auxiliary building and turbine building wall interface; however, the steam generator (SG) blowdown line goes through an isolation restraint that restricts movement in all six directions. For the cases with the torsional restraint, the staff questioned how the applicant can stop the classification and analysis of the safety related piping at a restraint that isn't fully restraining movement in all six directions. The applicant stated that the pipe in the main steam and main feedwater is considered a "super pipe" (i.e., piping that is impact tested and has a larger wall thickness than typical) and has a torsional restraint which the applicant considers as an "equivalent anchor." The applicant also stated that the no break zone extends 3 feet beyond the torsional restraint into the turbine building. The applicant further stated that the definition of the no break zone can be found in Section 3.6.2.1.1e of its FSAR and that according to its final safety analysis report (FSAR), the piping up to the end of the no break zone has been evaluated and that it will not be affected by a break in the nonsafety-related portion of the piping in the turbine building. FSAR Drawings 3.6-1 sheet 1, sheet 2, and sheet 3 provide the high energy pipe break isometrics that show the no break zone and safety/nonsafety main steam and main feedwater piping associated with it. The staff stated that for license renewal, its concern is with the potential for age related degradation downstream of the no break zone in the turbine building to impact the safety related function of the safety related piping of the no break zone in the auxiliary building. The staff stated that the reason for the NEI 95-10 guidelines to have an anchor downstream of the safety to nonsafety-related interface is to make sure that if something breaks in the non-safety related portion in the turbine building, the safety related portion wouldn't be impacted. The staff stated that the applicant is taking an exception to the recommendations of NEI 95-10 and therefore requested the applicant to provide the following:

- explain technically how the plant is designed such that a failure beyond the safety related to nonsafety-related interface couldn't affect the safety related portion of the interface, or translate into the auxiliary building
- revise the LRA to state that Callaway is taking an exception to NEI 95-10 guidelines
- provide the technical basis to Callaway's exception to NEI 95-10 guidelines which recommends that applicants include within the scope of license renewal nonsafety-related piping up to the first anchor downstream of the safety related to nonsafety related interface.

The applicant understood the staff's requests and stated that it will provide the information with its upcoming response to RAI 2.3.4.2-1a and may also supplement its response to RAI 2.1-2. The staff will not issue Draft RAI 2.1-2a.

**Action:** Applicant to provide a response to the staff's requests via response to RAI 2.3.4.2-1a and possibly supplement its response to RAI 2.1-2.

February 12, 2013

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FACILITY: Callaway Plant, Unit 1

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Samuel Cuadrado de Jesús, Project Manager  
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Docket No. 50-483

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\*concurred via email

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DATE	2/6/13	2/7/13	2/12/13

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