

May 28, 2009

10 CFR 52.75

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD. 20852

ALNRC 00020



Subject: AmerenUE, Callaway Plant, Unit 2 (NRC Docket No. 52-037)
Response to RAI No. 5 (eRAI No. 2380), Revision 0,
Section 3.3.2.3 - Tornado Loads

Reference: Surinder Arora (NRC) to David E. Shafer (AmerenUE), "Final RAI
No. 5 (eRAI No. 2380) - Public" email dated May 1, 2009.

The purpose of this letter is to respond to the Request for Additional Information (RAI) identified in the NRC e-mail correspondence to AmerenUE, dated 5/1/09 (reference). This RAI addresses the Tornado Loads as discussed in Section 3.3.2.3 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Callaway Plant Unit 2 Combined License Application (COLA), Revision 1.

Enclosure 1 provides our response to RAI No. 5 (eRAI No. 2380), Revision 0.

This response does not include any new regulatory commitments or contain proprietary information.

If there are any questions regarding this transmittal, please contact me at (573) 676-8519, SBond2@ameren.com or Dave Shafer at (573) 676-4722, DShafer@ameren.com.

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NRC

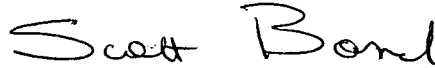
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I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 28, 2009

A handwritten signature in black ink that reads "Scott Bond". The signature is written in a cursive style with a large initial "S" and "B".

Scott Bond
Manager
Nuclear Generation Development

SMB/AML/slk

Enclosure:

1. Response to RAI No. 5 (eRAI No. 2380), Revision 0

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Enclosure 1

Response to RAI No. 5 (eRAI 2380), Revision 0

Question 03.03.02-1

GDC-2 requires applicants to demonstrate that SSC important to safety shall be designed to withstand the effects of natural phenomena. Tornado generated missiles are part of this criteria. The applicant has not provided sufficient information to demonstrate that missiles generated from collapse of structures not designed for Tornado loads are bounded by the EPR FSAR 3.5.1.4 missile spectrum.

The applicant is requested to provide the technical basis for stating that missiles generated from collapse of structures not designed for Tornado loads are bounded by the EPR FSAR 3.5.1.4 missile spectrum. Describe the missiles that may be generated by the collapse of the site-specific structures listed in Callaway Plant Unit 2 FSAR Section 3.3.2.3, explain how these are bounded by the missile spectrum in RG 1.76, and explain their immediate and subsequent effect for these potential missiles impacting safety related structures.

In order for the staff to determine that the structures not designed for tornadoes will not represent a hazard for safety related functions, additional information about this factor is requested to demonstrate compliance with GDC-2 in 10 CFR 50, Appendix A.

Response

Reconciliation between potential site specific tornado generated missiles and those assumed in the U.S. EPR FSAR analysis has been performed by the U.S. EPR designer. Tornado missiles, that may be generated by the collapse of non-safety related structures located on the Callaway Plant site, that are not designed for tornado wind loadings have been reviewed against the tornado missile spectrum used in U.S. EPR FSAR Section 3.5.1.4. This reconciliation includes, as design inputs, the basic construction of these facilities as well as their location on the site and proximity to safety-related structures as determined by the site layout drawings. The site specific facilities addressed and not included in U.S. EPR FSAR Section 3.3.2.3 are as follows:

- Fire Protection Water Tanks
- Fire Protection Building
- Storage/Warehouse

- Central Gas Supply Building
- Security Access Facility
- Switchgear Building
- Switchyard Control House
- Circulating Water System Pump Building
- Administrative and Maintenance Buildings

Potential tornado missiles from the collapse of the above site specific structures have been reconciled with U.S. EPR FSAR Section 3.5.1.4 analysis which employs the design basis tornado missile spectrum defined in the Regulatory Guide 1.76. This reconciliation determined the standard U.S. EPR tornado missile design features required no modification to ensure safety related structures remained adequately protected from tornado missiles generated by natural phenomena at the Callaway Plant site.

COLA Impact

The Callaway Plant Unit 2 COLA does not require revision as a result of this response.