



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

August 9, 2013

Mr. Adam C. Heflin
Senior Vice President and
Chief Nuclear Officer
Union Electric Company
P.O. Box 620
Fulton, MO 65251

SUBJECT: CALLAWAY PLANT, UNIT 1 – REQUEST FOR ADDITIONAL INFORMATION
RE: PROPOSED REVISION TO FSAR-SP SECTIONS 3.7(B) AND 3.7(N),
"SEISMIC DESIGN" (TAC NO. MF0407)

Dear Mr. Heflin:

By application dated December 20, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13002A370), as supplemented by letter dated June 6, 2013 (ADAMS Accession No. ML13158A009), to the U.S. Nuclear Regulatory Commission (NRC), Union Electric Company (dba Ameren Missouri, the licensee) submitted a license amendment request to revise a methodology in the licensing basis as described in the Final Safety Analysis Report - Standard Plant (FSAR-SP) to include damping values for the seismic design and analysis of the integrated head assembly that are consistent with the recommendations of NRC Regulatory Guide 1.61, "Damping Values for Seismic Design of Nuclear Power Plants," Revision 1, March 2007.

The NRC staff has determined that additional information, as requested in the enclosure, is needed to complete its review. The questions were provided by e-mail to Mr. T. Elwood of your staff on August 6, 2013. Please provide a response to the questions by September 2, 2013. If circumstances result in the need to revise the requested response date, please contact me at 301-415-2296 or via e-mail at Fred.Lyon@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "CFlyon".

Carl F. Lyon, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure:
As stated

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REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST TO REVISE THE LICENSING BASIS
FOR SEISMIC DESIGN AS DESCRIBED IN THE FSAR-SP
UNION ELECTRIC COMPANY
CALLAWAY PLANT, UNIT 1
DOCKET NO. 50-483

By application dated December 20, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13002A370), as supplemented by letter dated June 6, 2013 (ADAMS Accession No. ML13158A009), to the U.S. Nuclear Regulatory Commission (NRC), Union Electric Company (dba Ameren Missouri, the licensee) submitted a license amendment request to revise a methodology in the licensing basis as described in the Final Safety Analysis Report - Standard Plant (FSAR-SP) to include damping values for the seismic design and analysis of the integrated head assembly that are consistent with the recommendations of NRC Regulatory Guide 1.61, "Damping Values for Seismic Design of Nuclear Power Plants," Revision 1, March 2007.

The NRC staff has determined that the additional information requested below is needed to complete its review.

Mechanical and Civil Engineering Branch (EMCB)-Callaway-IHA-RAI-9

In section 3.1 (paragraph 2, page 6) of the letter dated December 20, 2012, the licensee indicated that the replacement reactor vessel closure head (RRVCH) includes a new structure called Integrated Head Assembly (IHA) that incorporates the functions of the former control rod drive mechanism (CRDM) seismic support structure, the CRDM ventilation cooling system, and the head lift rig. As a result of the new IHA structure, the licensee is requested to clarify the following items:

- (a) Are there any changes required to the CRDM system and its supports?
- (b) Is a re-analysis of the ASME class 1 CRDM system required?
- (c) If re-analysis of the CRDM system is required, please provide (i) the damping values used in the original CRDM class 1 analysis and in the re-analysis, (ii) a summary of the results (primary stresses, primary plus secondary stress intensity range, and cumulative usage factor (CUF) along with allowable limits based on the applicable code edition) from the original analysis and reanalysis for the critical locations such as CRDM latch housing, CRDM travel housing, CRDM nozzle between top of head and dissimilar metal weld, and CRDM nozzle at J-groove weld.

Enclosure

August 9, 2013

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Sincerely,
/RA/
Carl F. Lyon, Project Manager
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Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure:
As stated

cc w/encl: Distribution via Listserv

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ADAMS Accession No.: ML13219A317

*email dated August 2, 2013

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