



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

January 30, 2013

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
CALLAWAY PLANT UNIT 1 LICENSE RENEWAL APPLICATION, SET 21 (TAC
NO. ME7708)

Dear Mr. Heflin:

By letter dated December 15, 2011, Union Electric Company (Ameren Missouri) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54) for renewal of Operating License No. NPF-30 for the Callaway Plant Unit 1 (Callaway). The staff of the U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing this application in accordance with the guidance in NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants." During its review, the staff has identified areas where additional information is needed to complete the review. The staff's requests for additional information are included in the enclosure. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Sarah G. Kovaleski, of your staff, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me by telephone at 301-415-2946 or by e-mail at Samuel.CuadradoDeJesus@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel 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

Enclosure:
As stated

cc w/encl: Listserv

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/RA/

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

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As stated

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Letter to A. Heflin from S. Cuadrado DeJesus dated, January 30, 2013

CALLAWAY PLANT UNIT 1
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION, SET 21

RAI B2.1.5-4b

Background:

By its letter dated November 8, 2012, Union Electric Company (Ameren Missouri) responded to RAI B2.1.5-4a, which addressed the inspection method and frequency for the degradation indications in the reactor vessel bottom head.

In its response, Ameren Missouri stated that VT-3 examinations will be conducted to monitor the indications in the reactor vessel, consistent with American Society of Mechanical Engineers (ASME) Code Section XI, Table IWB-2500-1, Examination Category B-N-1. Ameren Missouri also stated that the acceptance standard for the VT-3 examination is ASME Code Section XI, IWB-3520.2, which allows a reduction of nominal section thickness of up to 5 percent due to corrosion or erosion. In addition, Ameren Missouri stated that if a future VT-3 examination finds that an indication has degraded, Ameren Missouri's corrective action program (AP) would determine any additional inspections required to characterize the indication, which may include an ultrasonic examination.

Issue:

The staff noted that the VT-3 examinations are not capable of monitoring the depths of the indications in the reactor vessel. Ameren Missouri's response to RAI B2.1.5-4a does not clearly address how its examinations will monitor the depths and depth-related conditions of the indications for the period of extended operation.

Request:

Clarify how Ameren Missouri will monitor the depths and depth-related conditions of the indications in the reactor vessel in order to determine whether the thickness of the reactor vessel wall is reduced. Such activities should also be clearly described in the summary description of the program in the Final Safety Analysis Report (FSAR) supplement.

RAI B1.4-1b

Background:

In its response to RAI B1.4-1, as revised by letter dated December 19, 2012, Ameren Missouri stated that the sources of industry operating experience included within the scope of its operating experience review process are based on the document categories defined in the Institute of Nuclear Power Operations (INPO)'s, "Guidelines for Use of Operating Experience."

Issue:

- (a) One of the INPO categories of industry operating experience is "Topical Reports." Per its abstract, NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," should be treated as an approved topical report. However, the RAI response explicitly states that Ameren Missouri will not evaluate updates to the GALL Report unless the NRC issues an accompanying generic communication. Similar information is also captured in Ameren Missouri's proposed final safety analysis report supplement. Specifically, Commitment No. 2 in license renewal application (LRA) Table A4-1 states that "other guidance documents such as [GALL Report] revisions may not be explicitly considered unless communicated in the form of one of the NRC generic communications." It is not clear to the staff why Ameren Missouri's operating experience review processes capture some topical reports, but possibly omit others that are specifically related to aging management, such as a GALL Report revisions.
- (b) The RAI response also states that Ameren Missouri requires industry operating experience applicable to Callaway to be documented in the Corrective Action Program (CAP) for further evaluation. To illustrate, Ameren Missouri explained that a guidance document or standard referenced in one of the primary sources of industry operating experience (i.e., sources covered by the INPO categories) would be considered as a relevant source applicable to Callaway. From this one example, it is not clear to the staff whether Ameren Missouri only identifies "industry operating experience applicable to Callaway" from INPO-communicated sources, or whether Ameren Missouri will rely on other activities to identify sources of industry operating experience that should be entered into the CAP for evaluation.

Request:

- (a) Provide justification as to why an update to the GALL Report would not be captured and reviewed as a topical report under the operating experience program. Also, indicate whether the program will exclude the capture and review of other topical reports on age-related degradation and aging management.
- (b) Describe activities used to identify industry-generated and NRC-generated guidance documents and standards applicable to Callaway. Justify the adequacy of these activities for identifying guidance documents and standards on age-related degradation and aging management.
- (c) If any enhancements to the existing activities for the ongoing review of operating experience are necessary, provide the schedule for implementing these enhancements. Also provide a justification if implementation is later than the date when the renewed operating license is scheduled to be issued if approved.
- (d) Revise the FSAR supplement accordingly based on the responses to the above items.