

May 30, 2006

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

ULNRC-05295

Ladies and Gentlemen:



**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
FACILITY OPERATING LICENSE NPF-30
RESPONSE UPDATE TO GENERIC LETTER 2004-02:
"POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON
EMERGENCY RECIRCULATION DURING DESIGN BASIS
ACCIDENTS AT PRESSURIZED-WATER REACTORS"**

- References: 1. ULNRC-05194, dated September 1, 2005.
2. NRC letter dated March 28, 2006, from Catherine Haney,
NRC, to Holders of Licenses for Pressurized-Water Reactors.

In accordance with 10 CFR 50.54(f), this letter provides an update to the Union Electric Company (AmerenUE) response to Nuclear Regulatory Commission (NRC) Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors."

The NRC issued Generic Letter 2004-02 on September 13, 2004 to 1) request that addressees perform an evaluation of the Emergency Core Cooling System (ECCS) and Containment Spray System (CSS) recirculation functions in light of the information provided in the generic letter and, if appropriate, take additional actions to ensure system function, and 2) require addressees to provide the NRC a written response in accordance with 10 CFR 50.54(f).

Reference 2 transmitted the NRC's alternative approach for responding to the NRC request for additional information letter on Generic Letter 2004-02. The agreed alternative to the 60 day response is that for plants installing strainers after 2006,

A116

May 30, 2006

Page 2

information needed to fully address GL 2004-02 will be provided to the NRC within 90 days of outage completion but not later than December 31, 2007.

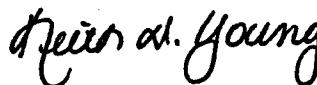
Reference 1 provided the available information requested by Generic Letter 2004-02 and committed to update that information by June 1, 2006. To address the generic letter and associated commitments, the activities described below have taken place thereafter. Specific commitments are addressed in Attachment 1. During the week of March 13, 2006, mock up strainer head loss testing was performed. Analysis of the results is ongoing. Activities are proceeding as described in Reference 1 and are outlined in Attachment 1 of this submittal. Specifically, AmerenUE plans to install new containment recirculation sump strainers at Callaway to increase the available (i.e., submerged) strainer area from less than 400 square feet currently available to an expected area of approximately 6400 square feet. Any additional information needed to fully address the generic letter will be provided to the NRC 90 days after completion of Refuel 15 (spring 2007) as established in the request for additional information (RAI) schedule provided in Reference 2.

This letter transmits changes in AmerenUE regulatory commitments contained in Reference 1. The commitment changes are being submitted in accordance with guidance provided by industry document NEI 99-04, "Guidelines for Managing NRC Commitment Changes," as endorsed in Regulatory Issues Summary 00-017, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff." Attachment 1 lists the AmerenUE commitments contained in this letter. Commitments contained in this letter supersede those previously contained in Reference 1.

If you have any questions concerning this matter, please contact Dave Shafer at (314) 554-3104.

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

Sincerely,



Keith D. Young
Manager - Regulatory Affairs

Executed on: May 30, 2006

BFH/

Attachment 1 Updated List of Commitments

ULNRC-05295

May 30, 2006

Page 3

CC: Mr. Bruce S. Mallett
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-4005

Senior Resident Inspector
Callaway Resident Office
U.S. Nuclear Regulatory Commission
8201 NRC Road
Steedman, MO 65077

Mr. Jack N. Donohew (2 copies)
Licensing Project Manager, Callaway Plant
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O-7D1
Washington, DC 20555-2738

Missouri Public Service Commission
Governor Office Building
200 Madison Street
PO Box 360
Jefferson City, MO 65102-0360

Mr. Ron Reynolds
Director
Missouri State Emergency Management Agency
P.O. Box 116
Jefferson City, MO 65102

LIST OF COMMITMENTS

The following table identifies those actions originally committed to by AmerenUE in Reference 1. The table provides a status update and revised commitment due dates. Please direct questions regarding these commitments to Mr. David E. Shafer at (314) 554-3104.

.COMMITMENT	Current Status	Due Date/Event
1. Containment walkdown to provide current assessment of Callaway's containment coatings and latent debris.	Completed during Refuel Outage 14 (Fall 2005).	
2 The following corrective action activities will be completed: <ul style="list-style-type: none"> a. Replacement sump strainer structural analysis. b. Downstream effects evaluation. c. Upstream effects evaluation. d. Resolution of debris generation calculation unverified assumption of 5D ZOI for qualified coatings (via coatings testing). e. Replacement sump screen head loss testing. 	<p>The structural analysis of the replacement strainers is in progress and will be completed prior to Refuel 15 (Spring 2007).</p> <p>Initial downstream evaluations have been performed; however, refinements are being pursued using test data and input from PWROG/NRC discussions concerning nuclear fuel.</p> <p>Upstream evaluations have been performed and will be included in the Westinghouse team analysis summary report, item 4.f. of this table.</p> <p>Zone of influence testing has been performed and a draft report was issued in May 2006.</p> <p>Strainer performance testing, including provisions for chemical effects, was performed during the week of March 13, 2006.</p>	<p>Within 90 days of Refuel 15 completion (spring 2007)</p>

<p>3. Provide an update of the information contained in section 2(c) regarding analysis methodology.</p>	<p>The analyses are proceeding and refinements are being pursued. The update of information contained in section 2(c) of Reference 1 will be provided after completion of Item 4.f. of this table.</p>	<p>December 31, 2007</p>
<p>4. The following evaluations and testing will be completed:</p> <ul style="list-style-type: none"> a. Industry chemical effects testing. b. NEI 04-07 debris generation calculation. c. NEI 04-07 debris transport calculation. d. Evaluation of chemical effects impact on sump-strainer head loss. e. Confirmation that the replacement sump strainer design provides for available NPSH to be in excess of required NPSH. f. Completion of the final site acceptance review of the Westinghouse team analysis summary report. 	<p>Industry chemical effects tests have been completed.</p> <p>The debris generation calculation has been performed and will be included in the Westinghouse team analysis summary report, item 4.f. of this table.</p> <p>The debris transport calculation has been performed and will be included in the Westinghouse team analysis summary report, item 4.f. of this table.</p> <p>WCAP 16530-NP guidance was used as part of the strainer performance testing performed during the week of March 13, 2006.</p> <p>The strainer performance test report is in progress and will be used in the determination of adequate NPSH.</p> <p>Several of the items contained in the final report have been completed but the final report will not be issued until all items are completed.</p>	<p>Within 90 days of Refuel 15 completion (spring 2007)</p>

<p>5. Callaway will complete the following items during Refuel 15:</p> <ul style="list-style-type: none"> a. Replacement of containment recirculation sump strainers. b. Modification of containment debris barriers and interceptors as required. c. Evaluation and implementation of potential modification to the safety injection system to address downstream effects. 	<p>Activities are proceeding to install the new strainers during Refuel 15 (Spring 2007).</p> <p>Debris barriers are currently planned for installation during Refueling Outage 15. Use of debris interceptors is dependant on the refinements mentioned in Item 2.b. of this table.</p> <p>Implementation of potential modification to the safety injection system is dependant on the refinements mentioned in Item 2.b. of this table.</p>	<p>Prior to restart from Refuel Outage 15 (Spring 2007)</p>
<p>6. Callaway will complete removal of containment spray system (CSS) pump cyclone separators, if required based on the results of the downstream effects evaluation.</p>	<p>Removal of containment spray system (CSS) pump cyclone separators is dependent on the results of the downstream effects evaluation, Item 2.b. of this table.</p>	<p>December 31, 2007</p>
<p>7. The following programs and controls will be implemented at Callaway to control debris sources.</p> <ul style="list-style-type: none"> a. Changes to design change process procedures to ensure that necessary engineering evaluations will be performed for plant design that either directly or indirectly affects containment, ECCS, or CSS. b. Changes to containment entry and material control procedure requirements for control of materials during work activities conducted in the containment. c. Changes to programs and procedures that have the potential to add tags and labels inside containment. 	<p>Evaluations of changes required to programs and controls have not been completed.</p>	<p>December 31, 2007</p>

7. (continued)		
<ul style="list-style-type: none"> d. Implementation of a containment coatings assessment program e. Implementation of a containment latent debris assessment program f. Implementation of changes to the inspection processes for the installed sump strainers 		
8. A final response will be submitted to the NRC to provide a final status of actions requested by Generic Letter 2004-02.		December 31, 2007