

April 26, 2004

Mr. Garry L. Randolph  
Vice President and Chief Nuclear Officer  
Union Electric Company  
Post Office Box 620  
Fulton, MO 65251

SUBJECT: CALLAWAY PLANT, UNIT 1 - REQUEST FOR ADDITIONAL INFORMATION REGARDING RESPONSES TO BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY SUMP RECIRCULATION AT PRESSURIZED-WATER REACTORS" (TAC NO. MB9562)

Dear Mr. Randolph:

By letters dated August 8, 2003 (ULNRC-04884), and March 25, 2004 (ULNRC-04966), you submitted responses to NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors," dated July 9, 2003, for the Callaway Plant, Unit 1. The NRC issued Bulletin 2003-01 to all pressurized-water reactor (PWR) licensees requesting that they provide a response, within 60 days of the date of the bulletin, that contains either the information requested in the following Option 1 or Option 2 that was stated in the bulletin:

- Option 1: State that the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions have been analyzed with respect to the potentially adverse post-accident debris blockage effects identified in this bulletin, taking into account the recent research findings described in the Discussion section, and are in compliance with all existing applicable regulatory requirements.
- Option 2: Describe any interim compensatory measures that have been implemented or that will be implemented to reduce the risk which may be associated with potentially degraded or nonconforming ECCS and CSS recirculation functions until an evaluation to determine compliance is complete. If any of the interim compensatory measures listed in the Discussion section will not be implemented, provide a justification. Additionally, for any planned interim measures that will not be in place prior to your response to this bulletin, submit an implementation schedule and provide the basis for concluding that their implementation is not practical until a later date.

You provided a response that addressed Option 2 of the bulletin. In your response, you discussed the interim compensatory measures (ICMs) that have been and will be implemented, and the schedule for the implementation. The letter dated March 25, 2004, provided changes to the letter dated August 8, 2003, in which the sump screen inspection acceptance criteria were modified.

G. Randolph

- 2 -

The NRC staff has reviewed and evaluated the information provided in your responses to the Bulletin and has determined that the enclosed additional information is needed to complete our review. These questions were sent to your staff by e-mail on April 20, 2004, to expedite your response to the questions and any differences from the enclosed questions are only editorial. Because of the current refueling outage that you are in, your staff has agreed to respond by June 30, 2004. If you have any questions, please contact me at 301-415 1307, or through the internet at [jnd@nrc.gov](mailto:jnd@nrc.gov).

Sincerely,

/RA/

Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure: Request for Additional Information

cc w/encl: See next page

G. Randolph

- 2 -  
April 26, 2004

The NRC staff has reviewed and evaluated the information provided in your responses to the Bulletin and has determined that the enclosed additional information is needed to complete our review. These questions were sent to your staff by e-mail on April 20, 2004, to expedite your response to the questions and any differences from the enclosed questions are only editorial. Because of the current refueling outage that you are in, your staff has agreed to respond by June 30, 2004. If you have any questions, please contact me at 301-415 1307, or through the internet at jnd@nrc.gov.

Sincerely,  
/RA/  
Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure: Request for Additional Information

cc w/encl: See next page

DISTRIBUTION:

PUBLIC  
PDIV-2 Reading  
RidsNrrDlpmPdiv (HBerkow)  
RidsNrrPMJDonohew  
RidsNrrLaEPeyton  
RidsOgcRp  
RidsACRSACNWMailCenter  
RidsRegion4MailCenter (D. Graves)  
MKowal  
AWang  
SWeerakkody

**ACCESSION NO.: ML041180601**

**NRR-088**

OFFICE	PDIV-2/PM	PDIV-2/LA	Bull 2003-01/LPM	PDIV-2/SC
NAME	JDonohew:mp	EPeyton	AWang	SDembek
DATE	4/26/04	4/23/04	4/26/04	4/26/04

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML041180601.wpd

OFFICIAL RECORD COPY

Callaway Plant, Unit 1

cc:

Professional Nuclear Consulting, Inc.  
19041 Raines Drive  
Derwood, MD 20855

John O'Neill, Esq.  
Shaw, Pittman, Potts & Trowbridge  
2300 N. Street, N.W.  
Washington, D.C. 20037

Mr. Mark A. Reidmeyer, Regional  
Regulatory Affairs Supervisor  
Regulatory Affairs  
AmerenUE  
P.O. Box 620  
Fulton, MO 65251

U.S. Nuclear Regulatory Commission  
Resident Inspector Office  
8201 NRC Road  
Steedman, MO 65077-1302

Mr. Chris Younie  
Manager, Quality Assurance  
AmerenUE  
P.O. Box 620  
Fulton, MO 65251

Manager - Electric Department  
Missouri Public Service Commission  
301 W. High  
P.O. Box 360  
Jefferson City, MO 65102

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

Mr. Ronald A. Kucera  
Deputy Director for Public Policy  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

Mr. Rick A. Muench  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
P.O. Box 411  
Burlington, KA 66839

Mr. Dan I. Bolef, President  
Kay Drey, Representative  
Board of Directors Coalition for the  
Environment  
6267 Delmar Boulevard  
University City, MO 63130

Mr. Lee Fritz, Presiding Commissioner  
Callaway County Court House  
10 East Fifth Street  
Fulton, MO 65151

Mr. David E. Shafer  
Superintendent, Licensing  
Regulatory Affairs  
AmerenUE  
P.O. Box 66149, MC 470  
St. Louis, MO 63166-6149

Mr. Keith D. Young  
Manager, Regulatory Affairs  
AmerenUE  
P.O. Box 620  
Fulton, MO 65251

Mr. Scott Clardy, Director  
Section for Environmental Public Health  
P.O. Box 570  
Jefferson City, MO 65102-0570

Certrec Corporation  
4200 South Hulen, Suite 630  
Fort Worth, TX 76109

REQUEST FOR ADDITIONAL INFORMATION

RELATED TO BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON  
EMERGENCY SUMP RECIRCULATION AT PRESSURIZED WATER REACTORS"

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

By letter dated August 8, 2003, Union Electric Company (the licensee) submitted the response for the Callaway Plant, Unit 1 (Callaway) to NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors [PWRs]," dated July 9, 2003. The response was supplemented in the letter of March 25, 2004, in which the licensee provided changes to its letter dated August 8, 2003, related to the sump screen inspection acceptance criteria. The following request for additional information is based on these letters:

1. The Westinghouse Owners Group (WOG) has developed operational guidance in response to Bulletin 2003-01 for Westinghouse and Combustion Engineering (CE)-type PWRs. For Callaway, the response stated that the licensee will consider plant specific procedural modifications that would delay the switchover to containment sump recirculation after the WOG program has been completed. Please provide a discussion of the WOG recommended compensatory measures that have been or will be implemented for Callaway. Include a discussion of the evaluations or analyses performed to determine that these compensatory measures are acceptable for Callaway and provide technical justification for those WOG compensatory measures not being implemented. Also include a detailed discussion of the procedures being modified, the operator training being implemented, and the schedule for implementing these compensatory measures.
2. In the response to Bulletin 2003-01, it is stated that the licensee will be implementing operator training on indications of and responses to sump clogging. However, the response does not completely discuss the operator training to be implemented. Please provide a detailed discussion of the operating procedures to be modified, the indications of sump clogging that the operators are instructed to monitor, and the response actions the operators are instructed to take in the event of sump clogging and loss of emergency core cooling system recirculation capability.
3. In the supplemental response to Bulletin 2003-01 dated March 25, 2004, it is stated that the sump screen inspection acceptance criteria has been modified by adding acceptable tolerances to each criterion associated with breaches in the sump screens. Please provide the technical basis for these tolerances, including how they were determined, and why they are acceptable.