



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

March 11, 2013

LICENSEE: Union Electric Company (Ameren)

FACILITY: Callaway Plant, Unit 1

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON
FEBRUARY 21, 2013, BETWEEN THE U.S. NUCLEAR REGULATORY
COMMISSION AND UNION ELECTRIC COMPANY, REGARDING REQUESTS
TO SUPPLEMENT CLARIFICATION RESPONSES TO THE SEVERE
ACCIDENT MITIGATION ALTERNATIVES REQUESTS FOR ADDITIONAL
INFORMATION CONCERNING THE CALLAWAY PLANT, UNIT 1, LICENSE
RENEWAL APPLICATION (TAC. NO. ME7716)

The U.S. Nuclear Regulatory Commission (NRC or staff) and representatives of Union Electric Company (Ameren), held a telephone conference call on February 21, 2013. The purpose of the call was to discuss and clarify the staff's questions following Ameren's response (ML130160235) to "Requests for Clarification of Responses to the Severe Accident Mitigation Alternatives Requests for Additional Information Concerning the Callaway Plant, Unit 1, License Renewal Application (ML12310A392)."

Enclosure 1 provides a listing of the participants and Enclosure 2 provides a description of the outcome of the call.

A draft of these questions was provided to the applicant prior to the call on February 8, 2013. The applicant has agreed to provide written responses to the questions within 30 days of the date of this letter and has also had an opportunity to comment on this summary.

A handwritten signature in black ink that reads "Carmen Fells". The signature is stylized with a large, flowing "C" and "F".

Carmen Fells, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:
As stated

cc w/encls: Listserv

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/ra/

Carmen Fells, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

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TELEPHONE CONFERENCE CALL REGARDING REQUESTS TO SUPPLEMENT
CLARIFICATION RESPONSES TO THE SEVERE ACCIDENT MITIGATION ALTERNATIVES
REQUESTS FOR ADDITIONAL INFORMATION CONCERNING
THE CALLAWAY PLANT, UNIT 1, LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
FEBRUARY 21, 2013

PARTICIPANTS

AFFILIATIONS

Jerry Dozier	U.S. Nuclear Regulatory Commission (NRC)
Carmen Fells	NRC
Bob Schmidt	Pacific Northwest National Laboratory (PNNL)
Steve Short	PNNL
Sarah Kovalski	Union Electric Company (Ameren)
Andrew Burgess	Ameren
David Shafer	Ameren
Justin Hiller	Ameren
Michael Phillips	Sciencetech
William McNeely	Sciencetech

TELEPHONE CONFERENCE CALL REGARDING REQUESTS TO SUPPLEMENT
CLARIFICATION RESPONSES TO THE SEVERE ACCIDENT MITIGATION ALTERNATIVES
REQUESTS FOR ADDITIONAL INFORMATION CONCERNING
THE CALLAWAY PLANT, UNIT 1, LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) and representatives of Union Electric Company (Ameren) held a telephone conference call on February 21, 2013, to discuss information needed to supplement answers to requests for clarification of responses to the severe accident mitigation alternatives (SAMA) requests for additional information (RAIs) concerning the license renewal application.

1. Clarification 3 - RAI 5.a

The response indicates that planned installation of the no leakage reactor cooling pump (RCP) seals will mitigate a large fraction of the fire and internal flood risk, which addresses the scenarios where seal loss-of-coolant accidents (LOCAs) are dominant contributors. The response does not address fire and internal flood scenarios that are not mitigated by the new RCP seals. The NRC staff's review of these scenarios concludes that each has a maximum estimated benefit, including consideration of uncertainty, of less than \$100K. However, Scenarios 4501-2B and 4501-1B are very similar and involve loss of AFW (auxiliary feedwater) due to emptying the CST (condensate storage tank). Mitigating both of these scenarios amounts to a maximum potential benefit, including uncertainty, of approximately \$100K. Clarify if Callaway has existing procedures for providing an alternate source of water for AFW and, if not, identify/assess a SAMA candidate to address these scenarios.

2. Clarification 4 - RAI 5.b

It is noted that the top 6 internal flood scenarios do not involve RCP seal LOCAs. The largest, Zone 1 Scenario F1A has a potential maximum benefit for a SAMA that might eliminate this scenario of approximately \$130K. The other scenarios have potential maximum benefits considerably lower. The clarification response to RAI 5.b indicates that Ameren is undertaking a study of the potential for strengthening plant doors (new SAMA 189) that might reduce the risk due to internal flooding. Clarify if damage due to Zone 1 Scenario F1A is mitigated by strengthening plant doors and is therefore addressed by SAMA 189 and, if not, identify/assess a SAMA candidate to address this scenario.

3. Clarification 6 - RAI 7.b

The response states that SAMA 186 was intended to evaluate providing backup cooling to only the CCW (component cooling water) heat exchanger loads. This SAMA was originally added by Ameren in response to RAI 7.b where it is stated: "SAMA 186 was added to evaluate procedures to provide fire water to the ESW (essential service water) system." The latest response indicates that since a procedure already exists for supplying fire water to the EDGs (emergency diesel generators) the only additional load to be supplied is the CCW system. This would appear to be similar to SAMA 64. The revised SAMA 168 has a benefit of \$1K while SAMA 64 has a benefit of \$59K (no failure of CCW pumps) or \$104K (fire water to the RHR (residual heat removal) heat exchanger) depending on how evaluated. These are both much less than the benefit for original SAMA 186 (supply fire water to replace the entire ESW) of \$636K (Case SW02). This implies that the benefit of supplying fire water to the EDGs (presumably not credited in the current PRA (probabilistic risk assessment)) is very large. Clarify that essentially all ESW loads are accounted for by SAMA 64 and the existing procedure

to supply fire water to the EDGs. If not, provide a revised assessment of original SAMA 186 to supply fire water to the ESW system (to supply all ESW system loads except the EDGs).

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