



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005**

May 2, 2003

EA-03-060

Garry L. Randolph, Senior Vice
President and Chief Nuclear Officer
Union Electric Company
P.O. Box 620
Fulton, Missouri 65251

**SUBJECT: NRC SPECIAL INSPECTION: INSPECTION REPORT 50-483/03-08;
PRELIMINARY WHITE FINDING - CALLAWAY PLANT**

Dear Mr. Randolph:

This report discusses a finding that appears to have low to moderate safety significance. As described in Section 2.b of this report, the finding involved the failure to maintain your primary emergency preparedness alert notification system, and also involved apparent cross cutting human performance issues. This finding was assessed based on the best available information, including influential assumptions, using the emergency preparedness Significance Determination Process (SDP) dated December 29, 2000, and was preliminarily determined to be a White Finding. Although the finding was determined to represent a failure to meet a risk significant emergency preparedness planning standard, the finding has a low to moderate safety significance because the loss of notification system function affected less than 2 percent of the population of the emergency planning zone.

In September 1998, you identified that the database used to identify your tone alert radio distribution contained significant errors. However, you failed to correct those errors and the database continued to degrade until a change in electric service provider coverage in your emergency planning zone in October 2002 prompted you to correct and update the database. As a result of the errors, a small percentage of residences in your emergency planning zone would not have received an emergency alerting signal in the event of an accident at the Callaway facility. The facility staff has implemented appropriate immediate compensatory measures, and therefore the finding does not present an immediate safety concern. The facility staff is continuing with long-term corrective measures.

The finding is also an apparent violation of NRC requirements and is being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The current Enforcement Policy is included on the NRC's Web Site at <http://www.nrc.gov/what-we-do/regulatory/enforcement/enforce-pol.html>.

Before we make a final decision on this matter, we are providing you an opportunity (1) to present to the NRC your perspectives on the facts and assumptions, used by the NRC to arrive

at the finding and its significance, at a Regulatory Conference, or (2) submit your position on the finding to the NRC in writing. If you request a Regulatory Conference, it should be held within 30 days of the receipt of this letter and we encourage you to submit supporting documentation at least one week prior to the conference in an effort to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation. If you decide to submit only a written response, such submittal should be sent to the NRC within 30 days of the receipt of this letter.

Please contact Mr. Troy Pruett at (817) 860-8215 within 10 business days of the date of receipt of this letter to notify the NRC of your intentions. If we have not heard from you within 10 days, we will continue with our significance determination and enforcement decision and you will be advised by separate correspondence of the results of our deliberations on this matter.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for these inspection findings at this time. In addition, please be advised that the characterization of the apparent violation described in the enclosed report may change as a result of further NRC review.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

//RA//

Dwight D. Chamberlain, Director
Division of Reactor Safety

Docket: 50-483
License: NPF-30

Enclosure:
NRC Inspection Report
50-483/03-08

Union Electric Company

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cc w/enclosure:
Professional Nuclear Consulting, Inc.
19041 Raines Drive
Derwood, Maryland 20855

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

Mark A. Reidmeyer, Regional
Regulatory Affairs Supervisor
Regulatory Affairs
Ameren UE
P.O. Box 620
Fulton, Missouri 65251

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

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

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

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

Manager
Quality Assurance
Ameren UE
P.O. Box 620
Fulton, Missouri 65251

Union Electric Company

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Jerry Uhlmann, Director
State Emergency Management Agency
P.O. Box 116
Jefferson City, Missouri 65101

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

Manager
Regulatory Affairs
Ameren UE
P.O. Box 620
Fulton, Missouri 65251

Technical Services Branch Chief
FEMA Region VII
2323 Grand Blvd., Suite 900
Kansas City, Missouri 64108-2670

David E. Shafer
Superintendent, Licensing
Regulatory Affairs
Ameren UE
P.O. Box 66149, MC 470
St. Louis, Missouri 63166-6149

Electronic distribution by RIV:
 Regional Administrator (**EWM**)
 DRP Director (**ATH**)
 DRS Director (**DDC**)
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 Senior Resident Inspector (**MSP**)
 Branch Chief, DRP/B (**DNG**)
 Senior Project Engineer, DRP/B (**RAK1**)
 Staff Chief, DRP/TSS (**PHH**)
 RITS Coordinator (**NBH**)
 DMB (IE35)
 W. A. Maier, RSLO
 OEMail

Only inspection reports to the following:

B. McDermott (**BJM**)
 CWY Site Secretary (**DVY**)

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ENCLOSURE 1

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket: 50-483
License: NPF-30
Report No.: 50-483/03-08
Licensee: Union Electric Company
Facility: Callaway Plant
Location: Junction Highway CC and Highway O
Fulton, Missouri
Dates: February 10 through March 21, 2003
Inspectors: Ryan Lantz, Senior Emergency Preparedness Inspector
Michael Shannon, Senior Health Physicist
Approved By: Dwight D. Chamberlain, Director
Division of Reactor Safety
Attachments: (1) Supplemental Information
(2) Event Time Line

SUMMARY OF FINDINGS

Callaway Plant NRC Inspection Report 50-483/03-08

IR 05000483/03-08; Union Electric Co; Callaway Plant on 02/10-03/21/2003; Special Inspection Report; Alert Notification System Tone Alert Radios. One preliminary White finding.

The inspection was conducted by two regional senior inspectors. The inspection identified one apparent violation of NRC requirements. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609 "Significance Determination Process." Findings for which the significance determination process does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>.

Cornerstone: Emergency Preparedness

- TBD. Between September 1998, and November 2002, due to programmatic inadequacies, a small percentage of residences in the licensee's plume exposure emergency planning zone would not have received an emergency alerting signal in the event of an emergency at the Callaway facility. The failure to establish a means to notify members of the public in the emergency planning zone was a violation of 10 CFR 50.47(b)(5), and also represented an apparent human performance cross cutting issue involving the timely recognition and correction of degraded conditions.

The finding had greater than minor significance because the condition resulted in a loss of alert notification capability to about 1.5 percent of the emergency planning zone population, and if left uncorrected the condition would have continued to degrade. Using the Emergency Preparedness Significance Determination Process the finding was preliminarily determined to have low to moderate safety significance (White) because it was a violation of 10 CFR 50.47(b)(5) and represented a risk-significant planning standard degraded function failure. This finding was entered in the licensee's corrective action program as Callaway Action Request System Item CARS 200208007 (Section 2.0).

Identification and Resolution of Problems

The inspectors determined that several opportunities to promptly identify and correct a risk significant condition involving the tone alert radio portion of the Alert Notification System were missed. Errors in the tone alert radio distribution database were first identified in September 1998, as a result of a review prompted, in part, by the national change from an Emergency Broadcast System to the Emergency Alert System. Corrective actions taken at that time failed to update the database, and failed to implement programmatic changes to prevent further degradation. Subsequent quality assurance audits, self-assessments, and surveillances failed to identify that the database was not corrected in 1998, and that procedural problems and inadequate supervisory oversight had resulted in a continuing degradation of the database through November 2002 (Section 4OA2).

Report Details

1.0 Description of Event and Chronology

1.1 Event Summary

Tone Alert Radios (TARs) were used by the licensee as the primary emergency alert notification system for those residences located within the licensee's 10-mile Emergency Planning Zone (EPZ) that were outside alert notification siren coverage. A database of those residences requiring TARs was maintained by facility nuclear senior clerks (NSCs) and updated monthly by reviewing information provided by Callaway Electric Cooperative, Three Rivers Electric Cooperative, and Ameren Union Electric (UE); the three utilities supplying residential electric service in the licensee's 10-mile EPZ. While performing surveillance ST-12055, "Monthly Distribution of Tone Alert Radios," on November 7, 2002, the assigned NSC noted an abnormally high number of new electrical hookups of residences in the Callaway Electric Cooperative service area. Unknown to the licensee, Callaway Electric Cooperative had acquired additional service area from Ameren UE in October 2002. After comparing the new electrical hookup list to the current TAR database, the licensee concluded that approximately 65 residences in the prior Ameren UE service area had not been issued TARs as required. On November 26, 2002, the licensee documented the partial loss of TAR coverage in the station's corrective action program as Callaway Action Request (CAR) 200208007.

On November 27, 2002, CAR 200208007 was screened by the Callaway Onsite Review Committee as a Significance Level One CAR, requiring a root cause analysis, and notification to NRC Region IV, Federal Emergency Management Agency Region VII, and the Missouri State Emergency Management Agency of the occurrence. TAR mailings to the initially identified 65 affected residences were completed on November 27, 2002. The licensee's full analysis of the partial loss of TAR coverage, completed in early March 2003, resulted in identification of an additional 33 affected residences. TARs were mailed to each of these additional residences immediately after identification.

1.2 Sequence of Events

The inspectors developed a detailed sequence of events and organizational response time line. The time line included applicable events and actions before, during, and following the November 2002 identification of a partial loss of TAR coverage. The time line was generated from the licensee's root cause analysis report, written records, and interviews with members of the licensee's staff. The detailed sequence of events is provided in Attachment 2.

2.0 Human Factors and Procedural Aspects of the Event

a. Inspection Scope

The inspectors evaluated the quality of procedures for maintenance of the TAR database, and the effectiveness of supervisory oversight and administrative staff actions in utilizing those procedures. The inspectors interviewed facility and electric service provider personnel, and reviewed the facility root cause report. The inspectors also

reviewed documents to determine the design requirements for the Callaway Alert Notification System (ANS).

b. Observations and Findings

Introduction. The inspectors identified an apparent violation of 10 CFR 50.47(b)5, which requires, in part, that a “. . . means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.” The finding was preliminarily determined to be of low to moderate safety significance (White).

Description. The inspectors identified several instances of poor procedural guidance, inadequate supervisory oversight, and ineffective administrative practices which affected the ability to maintain an accurate TAR database. The inspectors also identified several missed opportunities to identify errors in the TAR database and programmatic inadequacies that allowed continued degradation of the TAR database.

The Callaway NSCs were responsible for performing the monthly and annual surveillances used to maintain the TAR database. These surveillances were used to satisfy, in part, Section 8.5, “Maintenance and Inventory of Emergency Equipment and Supplies,” of the Callaway Emergency Response Plan (ERP). The inspectors observed the following inadequacies in the performance and content of both of these maintenance surveillances:

- The monthly surveillance, ST-12055, “Monthly Distribution of Tone Alert Radios,” required the NSC to review new electric service hookup and disconnect information and determine if any of the addresses were outside of siren coverage. The NSC utilized a TAR desktop guide, “Emergency Preparedness Tone Alert Radio Distribution/Database Maintenance,” as a reference to make the determination. The NSC independently evaluated the information supplied by the electric utilities, updated the TAR database, and prepared a mailing for the new TAR users. During an interview, an NSC explained to the inspectors that she had been told verbally that when a Mokane address was observed, it should be considered to be within siren coverage, and therefore would not require issuance of a TAR. The desktop guide reinforced this expectation in Section 2.1.3, “Ameren UE Cards,” which stated, in part, that if the address was “. . . a street, . . . it’s probably located in the town of Mokane, which is covered by siren.” However, after the November 2002 event, it was identified that some street addresses in Mokane were outside siren coverage.
- The annual surveillance, ST-12056, “Annual Mailing of Tone Alert Instructions,” was used by the NSCs to send each residence in the TAR database new batteries and use instructions. In 2000, the annual surveillance was modified to require the NSC to select one of the three local electric service utilities, request an updated customer list to compare to the TAR database, and revise as needed. This change was made as a cost saving measure to ensure new TAR batteries and instructions were not mailed to inactive residences. The surveillance did not specify which utility should be chosen, nor did it require selection of a different utility each year. The inspectors noted that each year

since modification of the surveillance, the Three Rivers Electric Cooperative was chosen for database comparison. The inspectors determined that use of the same utility each year did not result in adequate coverage of all utilities by the annual surveillance.

- The NSCs had inadequate guidance concerning when to expect electrical hookup information from the Ameren UE utility. The TAR desktop guide stated, in part, that a monthly report would be received from the Callaway and Three Rivers Cooperatives, but only stated that “. . . you will also receive cards for Union Electric customers. The majority of the Ameren UE customers are in siren coverage.” From May 2002 through November 2002, Ameren UE failed to send the hookup/disconnect cards due to a change in the Ameren UE customer tracking system. This failure to send the cards was not questioned by the NSCs nor the emergency preparedness staff.
- The completion of each monthly and annual surveillance was required by procedure to be reviewed by a member of the emergency preparedness staff, but neither that review nor any independent or quality control verifications were required to validate the accuracy of the NSC's conduct of the surveillance. Prior to the licensee's evaluation of corrective actions for the November 2002 event, neither the emergency preparedness reviewer, nor any other quality control or audit review, identified that the practice of selecting the same utility for review each year did not result in an adequate coverage by the surveillance and would be ineffective in correcting database errors.

The inspectors determined that the poor procedural guidance provided to the NSCs and inadequate supervisory oversight of the conduct of the TAR maintenance surveillances, directly contributed to the emergency preparedness programmatic weakness that resulted in the inability to provide timely notification to all members of the populace located in the EPZ.

The inspectors reviewed the specific design requirements of the Callaway ANS system to determine program compliance with the required design. The Callaway ERP, Section 3.1, stated that the ERP “. . . satisfies the intent of the guidance stated in NUREG-0654/FEMA-REP-1, Revision 1.” NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” gives specific design criteria for the ANS in Appendix 3. Section 6.7.2.1 of the ERP, “Alerting the General Public,” describes, in general terms, the use of fixed sirens and tone alert receivers as the system used to alert the population in the 10-mile EPZ. More specific uses of the ANS are contained in Appendix H of the ERP. Both of these areas of the ERP stated that the ANS provides alerting to approximately 100 percent of the population within the 10-mile EPZ. The detailed design of the ANS is described in the FEMA approved ANS Design Report. The ANS Design Report confirms the use of the TARs as the primary means of physical notification for those residents outside siren coverage. The ANS Design Report discusses both the administrative and physical means of notification in Section E.6, and stated that additional information on the administrative means of notification is found, in part, in Annex D of the affected county's Radiological ERP.

The inspectors reviewed Annex D of the Callaway County ERP. Section III.A, "Emergency Instructions to the Public, Public Alert System," described the ANS as having two specific capabilities: 1) within 15 minutes, provide area-wide coverage of the entire 10-mile EPZ and direct coverage of essentially 100 percent of the population within five miles of the plant, and 2) within 45 minutes, coverage of the entire population within the 10-mile EPZ. These criteria are essentially a reprint of the criteria in Appendix 3 to NUREG-0654/FEMA-REP-1.

The inspectors determined that the Callaway ANS design required the licensee to be able to identify where failures in the primary ANS had occurred, and take compensatory measures within 45 minutes to notify those residents who were potentially affected by that failure. The inspectors determined that the 45 minute design criterion could not be met due to, (1) the inaccurate TAR distribution, and (2) the inability to identify those residences without TARs and take appropriate compensatory actions within approximately 45 minutes. The licensee's final evaluation of the partial loss of TAR coverage required extensive effort and approximately 4 months of time to identify all of the affected residences and issue the appropriate TARs.

The inspectors reviewed the extent of the TAR system loss. The licensee's evaluation identified approximately 98 residences that had not received TARs. Based on a total TAR distribution of approximately 2500, this represented a loss of approximately 3.9 percent of the TAR portion of the ANS system. Based on an average of three occupants per residence, and a total population of 19,000, this loss affected approximately 1.5 percent of the population of the EPZ. Sixty-five of the missing TARs were located in the prior to October 2002 Ameren UE service area, which had a total of 232 residences outside of siren coverage. This represented a loss of approximately 28 percent of the TAR system for the prior Ameren UE service area. The inspectors concluded that the likelihood for residents to be alerted to an emergency condition by other means, such as increased traffic, noise in the streets, etc. . . . was reduced in the prior Ameren UE service area due to the relatively large percentage of the TAR system affected.

The inspectors determined that the failure of the licensee's self-assessments, audits, and supervisory oversight to identify this finding was a significant weakness in the problem identification and resolution cross cutting area. Since this failure is related to the finding, the inspectors did not characterize the failure as a separate problem identification and resolution concern. Additional details are in section 4OA2.

Analysis. The finding was assessed through the "Failure to Meet Regulatory Requirement" branch of the Emergency Preparedness Significance Determination Process (SDP). This finding is a performance deficiency in that inadequate procedures, quality reviews, and supervisory oversight resulted in TARs not being distributed to approximately 98 residences. The finding had greater than minor significance because the condition resulted in a loss of alert notification capability to about 1.5 percent of the EPZ population and if left uncorrected, the condition would have continued to degrade. The issue is associated with attributes of the Emergency Preparedness Cornerstone, and did affect the cornerstone objective, in that 98 residences would not have been notified of an emergency through their primary notification system. The finding was determined to represent an apparent failure to meet a risk significant emergency

preparedness planning standard as defined by Inspection Manual Chapter 0609, Appendix B, Section 2.a, with a preliminary significance determination of WHITE.

Enforcement. 10 CFR 50.47(b) requires that the onsite emergency response plans for nuclear power reactors meet each of fourteen planning standards. Standard (5) states, in part, that a “. . . means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.” The failure to maintain an accurate TAR database, and the inability to recognize that failure and take compensatory measures in a sufficiently short time period, resulted in the failure to establish a means to notify members of the populace in the EPZ between September 1998 and November 2002, in the event of an accident at the Callaway facility, and is an apparent violation of 10 CFR 50.47(b). The licensee took immediate corrective actions to issue TARs to the residences initially identified during this event. The licensee also took extensive actions to identify all of the residences in the EPZ that are outside siren coverage to correct any additional errors in the TAR database and issued TARs, as appropriate. The inspectors determined that the interim corrective actions taken were adequate and that based on these actions, the finding and apparent violation is not an immediate safety concern. The licensee has entered this issue into its corrective action program as CAR 200208007 (AV 50/483-0308-01).

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed periodic audits and surveillances, as well as corrective action documents, to identify prior opportunities to identify and correct the TAR database errors and programmatic inadequacies.

b. Observations and Findings

The inspectors determined the first missed opportunity to identify the degraded TAR database was due to incomplete corrective actions in response to Suggestion Occurrence Solution (SOS) Report SOS-98-3339 dated September 1, 1998. This SOS identified that TAR database errors existed, but failed to complete corrective actions to update the database, and failed to identify process control and procedural inadequacies that contributed to the errors. Quality Assurance Surveillance Report SP98-100, dated December 28, 1998, incorrectly identified that all actions from SOS-98-3339, with the exception of issuing new radios, were completed. In fact, the TAR database had not been corrected for the Ameren UE utility, since an updated customer list had not been received. On May 11, 1999, SOS-98-3339 was closed based on the completion of the TAR database revisions which, in fact, had not been performed.

Annual reviews of the emergency preparedness program conducted by the facility quality assurance organization, as required by 10 CFR 50.54(t), failed to identify the incomplete corrective actions from SOS-98-3339, and also failed to identify the process and procedural inadequacies which led to the continuing degradation of the TAR database. The inspectors determined the weaknesses displayed in the audit program directly contributed to the emergency preparedness programmatic weakness that

resulted in the inability to provide timely notification to all members of the populace located in the EPZ.

Supervisory review of the second and third instances of the revised annual TAR maintenance surveillance, ST-12056, completed April 10, 2001 and 2002, respectively, failed to identify that the surveillance was not providing adequate coverage of all utilities. Although the surveillance was being conducted as written, the TAR database was not being reviewed and updated for two of the three residential electric service providers.

The inspectors determined that these programmatic and implementation weaknesses represented a human performance cross cutting issue involving the timely recognition and correction of degraded conditions. Because this cross cutting issue directly contributed to the apparent violation discussed in Section 2.0, it was not identified as a separate finding.

40A6 Management Meetings

Exit Meeting Summary

On March 21, 2003, the inspectors presented the inspection results to Mr. G. Randolph, Senior Vice-President, Generation and Chief Nuclear Officer, and other members of his staff at a telephonic exit meeting. The licensee's staff acknowledged the findings presented.

The inspector asked the licensee's staff whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Affolter, Vice President, Nuclear
L. Akers, Accountant, Callaway Electric Cooperative
J. Beck, Customer Service, Ameren UE Jefferson City
B. Berger, Office Supervisor, Three Rivers Electric Cooperative
W. Bevard, Emergency Response Coordinator
J. Blosser, Manager, Regulatory Affairs
S. Crawford, Emergency Response Coordinator
L. Graessle, Superintendent, Protective Services
J. Hiller, Engineer, Regional Regulatory Affairs
G. Houghs, Supervising Engineer, Quality Assurance
D. Kuhlman, Customer Accounts, Ameren UE Saint Louis
J. Laux, Manager, Operations Support
A. Lee, Supervisor, Access Control
V. McGaffic, Superintendent, Performance Improvement
G. Pendergraff, Evaluator, Protective Services
G. Randolph, Senior Vice President, Generation; Chief Nuclear Officer
M. Reidmeyer, Supervisor, Regional Regulatory Affairs
A. Ruga, Nuclear Clerk
C. Struttmann, Senior Nuclear Clerk
J. Winkler, Corrective Action Specialist
W. Witt, Plant Manager

NRC

J. Hanna, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000483/0308-01	AV	Failure to meet the Alert Notification System design criteria due to programmatic deficiencies resulting in an inaccurate Tone Alert Radio database in apparent violation of 10 CFR 50.47(b)(5).
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DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

Corrective Action Program Documents

SOS-98-3339, CAR 199901955, CAR 200208007, CAR 200300778
Root Cause Evaluation, CAR 200208007, February 5, 2003

Miscellaneous Documents

Callaway Radiological Emergency Response Plan, Revision 25
Annex D to Callaway County/Fulton Radiological Emergency Response Plan, June 1999
Callaway County/Fulton Emergency Procedures #6 and #15
Alert and Notification System Design Report, January 7, 2002
Surveillance Report SP98-100, of December 28, 1998

Procedures

Procedure APA-ZZ-00500, "Corrective Action Program," Revision 31

Procedure KSP-ZZ-0001, "Alert and Notification Availability," Revisions 0 and 1

Tone Alert Radio Desktop Guide, "Emergency Preparedness Tone Alert Radio
Distribution/Database Maintenance," November 10, 1998

LIST OF ACRONYMS USED

ANS	Alert and Notification System
CAR	Callaway Action Request
CFR	Code of Federal Regulations
EPZ	10-mile Plume Exposure Emergency Planning Zone
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
NSC	Nuclear Senior Clerk
SDP	Significance Determination Process
SOS	Suggestion Occurrence Solution
TAR	Tone Alert Radio
TBD	To Be Determined
UE	Union Electric

ATTACHMENT 2

Event Time line: Partial Loss of Tone Alert Radio Coverage at Callaway.

- January 1998 Per normal practice, letters were sent to verify type of residence to new residents in the Emergency Planning Zone (EPZ) identified as located outside siren coverage. Tone Alert Radios (TARs) were sent after responses to the letters verified permanent occupied residences. Very few letters were returned. Implementation of the National Emergency Alert System from the Emergency Broadcast System changed the broadcasting radio frequencies and made the current TARs ineffective.
- September 1, 1998 Callaway RMS Supervisor initiates an investigation on the delay in issuance of TARs. No TARs had been issued to new residents in the EPZ since January 1998, resulting in errors in the current database. Corrective Action Report (Suggestion Occurrence Solution Report) SOS-98-3339 was written on September 1, 1998, to document the issue. Corrective actions included requesting a list from each of the three local residential electric service companies of all customers located in the EPZ.
- September 29, 1998 SOS-98-3339 stated, "All action to close this SOS projected to be completed by the end of January 1999. We are waiting for receipt of customer printouts from local utilities." TARs were then issued to new residents as customer lists were received.
- December 23, 1998 Quality Assurance Surveillance Report SP98-100 was issued. This surveillance report reviewed the corrective actions associated with SOS-98-3339. Surveillance Report SP98-100 stated that, "There is a current status for completion of 1/31/1999, to allow shipment of new radios upon receipt. All other actions have been completed."
- May 11, 1999 SOS-98-3339 was closed based on receipt of utility printouts and completion of the TAR distributions and database revisions. (During the investigation of the problem identified in November 2002, the licensee determined that a customer list was not received from Ameren UE and that SOS-98-3339 was incorrectly closed.)
- March 17, 2000 Annual surveillance ST-12056 was performed using Three Rivers Electric Cooperative customer information. No problems were identified.
- October 24, 2000 Annual surveillance ST-12056, "Annual Mailing of Tone Alert Instructions," was modified to require, in part, that the licensee obtain one of the three local service utility's customer data base, and compare it to the current TAR database.
- April 10, 2001 Annual surveillance ST-12056 was performed using Three Rivers Electric Cooperative customer information. No problems were identified.
- April 10, 2002 Annual surveillance ST-12056 was signed off as being performed and was approved by a reviewing authority, with no problems identified;

however, the documentation did not show that the TAR distribution list was compared to a current local utility customer list as required by the surveillance. The inspectors interviewed the individual who performed the surveillance and determined that the TAR database was compared to the monthly update list provided by the Three Rivers Electric Cooperative, which would have met the surveillance requirement.

- November 7, 2002 Monthly surveillance ST-12055 was performed to identify new residences that required TARs. Clerical personnel noted an abnormally large number of new customers for the Callaway Electric Cooperative.
- November 26, 2002 Corrective Action Report (CAR) 200208007 was written to document the large number of customers needing TARs issued. Immediate corrective actions included: (1) Calling residences identified as possibly not having TARs; (2) Requesting route alerting from the Callaway County Emergency Management Director of the areas affected if an emergency were to be declared; and (3) Identifying the number of TARs available on site and taking actions to have additional radios delivered to the site overnight.
- November 27, 2002 CAR 200208007 screened as a Significant Level 1 CAR requiring a formal root cause analysis. Additional immediate corrective actions taken were to: (1) Mail TARs to all identified residences that required but did not have radios; and (2) Provide a list of affected residents to the Callaway County Emergency Management Director.
- December 11, 2002 The event was evaluated for reportability using the guidance in NUREG 1022, Section 3.2.13, "Loss of Emergency Preparedness Capabilities." The event was determined not to be reportable because a major loss of offsite response capabilities had not occurred. Based on the initial assessment of 65 affected residences, approximately 1.0 percent of the households in the EPZ were affected, which did not meet the threshold for a major system loss. Using the final assessment of 98 affected households, approximately 1.5 percent of the households were affected, and similarly did not meet the reportability threshold.
- January 29, 2003 CAR 200300778 was written to evaluate the extent of condition. CAR 200300778 requested that each department head identify all cases where their departments rely on outside organizations to ensure that they meet regulatory responsibilities.
- February 5, 2003 The root cause analysis for CAR 200208007 was completed.
- February 10, 2003 NRC Special Inspection commenced on site at the Callaway facility.
- March 3, 2003 The licensee completed their analysis of the extent of the loss of TAR coverage. Thirty-three more residences that required TARs were identified in addition to the initial sixty-five. All affected residences were mailed TARs and usage instructions.

March 21, 2003

The final NRC exit meeting was conducted by telephone with Callaway facility management.