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

May 20, 2004

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

SUBJECT: CALLAWAY PLANT - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000483/2004006

Dear Mr. Randolph:

On April 2, 2004, the NRC completed an inspection at your Callaway Plant. The enclosed report documents the inspection findings, which were discussed on April 2, 2004, with Mr. Affolter and other members of your staff. On May 18, 2004, a second telephonic exit meeting was held with Keith Young, Mike Evans and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

The team reviewed approximately 105 corrective action documents, 28 self-assessments and audits, and numerous procedures, industry information, and other documents. Based on this review, the team determined that there was general improvement in implementation of the corrective action program; thresholds for identifying issues remained appropriately low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, examples were noted where problems were not promptly identified, or properly prioritized or evaluated with rigor. Based on interviews, the team concluded that a safety conscious work environment exists at Callaway, however, some negative comments received during interviews indicated that efforts to improve in this area have not been completely effective.

This report documents one finding that was evaluated by NRC management as having very low safety significance (green). The NRC has also determined that a violation is associated with this finding. The violation is being treated as a noncited violation consistent with Section VI.A of the Enforcement Policy. If you contest the violation or significance of this noncited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011;

the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Callaway Plant facility.

In accordance with 10 CFR 2.390 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 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).

Sincerely,

//RA//

Linda Smith, Chief
Plant Engineering Branch
Division of Reactor Safety

Docket: 50-483
License: NPF-30

Enclosure:
NRC Inspection Report
05000483/2004006
w/attachment: Supplemental Information

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

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

Mark A. Reidmeyer, Regional
Regulatory Affairs Supervisor
Regulatory Affairs
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

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

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

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

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

Jerry Uhlmann, Director
State Emergency Management Agency
P.O. Box 116
Jefferson City, MO 65102-0116

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

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

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

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

Electronic distribution by RIV:
Regional Administrator **(BSM1)**
DRP Director **(ATH)**
DRS Director **(DDC)**
Senior Resident Inspector **(MSP)**
Branch Chief, DRP/B **(DNG)**
Senior Project Engineer, DRP/B **(RAK1)**
Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(KEG)**
Rebecca Tadesse, OEDO RIV Coordinator **(RXT)**
CWY Site Secretary **(DVY)**

ADAMS: ■ Yes ☐ No Initials: __ljs____
■Publicly Available ☐ Non-Publicly Available ☐ Sensitive ■ Non-Sensitive

R:_CW\CW2004-06RP-SCS.wpd

C:PEB	SRI:DRP/C	RI:DRP/B	SOE:OB	RI:PEB
LJSmith:jlh	SSchwind	JHanna	TOMcKernon	TAMcConnell
/RA/	/RA/ via E	/RA/ via E	/RA/ via E	/RA/ via E
5/11 /04	5/19 /04	5/ 19 /04	5/ 17 /04	5/17 /04

C:DRP/B	C:PEB			
DNGraves	LJSmith			
/RA/ via E	/RA/			
5/ 17/04	5/20 /04			

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket:	50-483
License:	NPF-30
Report:	05000483/2004006
Licensee:	Union Electric Company
Facility:	Callaway Plant
Location:	Junction Highway CC and Highway O Fulton, Missouri
Dates:	March 22 through May 18, 2004
Inspectors:	S. Schwind, Senior Resident Inspector, Cooper Nuclear Station T. McKernon, Senior Operations Engineer J. Hanna, Resident Inspector, Callaway Plant T. McConnell, Reactor Inspector
Approved By:	L. J. Smith, Chief Plant Engineering Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000483/2004006; 03/22 - 04/02/2004 ; Callaway Plant. Identification and Resolution of Problems, Barrier Integrity

The inspection was conducted by a senior resident inspector, a senior operations engineer, a resident inspector, and a reactor inspector. One Green noncited violation (NCV) was identified. The significance of most findings is indicated by their color (green, white, yellow, red) using IMC 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "green" or assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

The team reviewed approximately 105 corrective action documents, 28 self-assessments and audits, and numerous procedures, industry information, and other documents. The team determined that there was a general improvement in implementation of the corrective action program; thresholds for identifying issues remained appropriately low, and in most cases, corrective actions were adequate to address conditions adverse to quality. However, in some instances, improper prioritization or the lack of a rigorous evaluation of problems continued to challenge the licensee. The team also concluded that a safety conscious work environment exists at Callaway, however some negative comments received during interviews indicated that efforts to improve in this area have not been completely effective.

A. Inspector-Identified and Self-Revealing Findings

Cornerstone: Barrier Integrity

- Green. The team identified a noncited violation of Technical Specification 5.4.1(e) for failure to establish an adequate procedure for evaluating emergency core cooling system leakage outside of containment as required by Technical Specification 5.5.2.

  This finding is not suitable for evaluation using the SDP because evaluation of the finding's significance involves an estimate of the Technical Specification 5.5.2 program impact on future leakage. This finding was more than minor because the lack of adequate acceptance criteria for implementation of a technical specification-required program represented a programmatic weakness, which if left uncorrected could become a more significant safety concern. Management review confirmed the violation had very low safety significance, since the licensee was able to demonstrate that the as-found leak rates were acceptable (Section 4OA2b).

B. Licensee-Identified Violation

A violation of very low significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective actions are listed in Section 4OA7.

REPORT DETAILS

4 OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed items selected across the seven cornerstones to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. Specifically, the team's review included a selection of approximately 105 condition reports that were opened or closed from December 2002 through March 2004. The team also reviewed a sample of licensee audits and self assessments, trending reports, system health reports, and various other reports and documents related to the problem identification and resolution program. The audit and self-assessment results were compared with the self-revealing and NRC-identified issues to determine the effectiveness of the audits and self assessments.

The team interviewed station personnel and evaluated corrective action documentation to determine the licensee's threshold for identifying problems and entering them into the corrective action program. The team evaluated the licensee's efforts in establishing the scope of problems by reviewing operational logs, action plans, maintenance action items, and results from surveillance tests.

In addition, the team reviewed the licensee's evaluation of selected industry experience information to assess if issues applicable to the Callaway Plant were appropriately addressed.

(2) Assessment

The team determined that, in general, problems were adequately identified and entered into the corrective action program. The threshold for entering issues into the corrective action program was appropriately low. During this period, the licensee implemented a number of improvements to the Corrective Action Program (CAP) which were evident during the inspection. For example, improvements to the work request screening process were implemented in 2003; the team did not identify any significant corrective maintenance items that were inappropriately excluded from the CAP. The team did note three examples where an adverse condition was not immediately recognized.

Examples: Failure of Meteorological Instruments

The team reviewed Callaway Action Request System 200202583 and 200300533, which documented failures of the 10 and 60 meter wind speed instruments and failure of the 10 meter wind direction instrument, respectively.

- The wind speed instrument failures were identified in April 2002. They were the result of electrical interference from the navigational beacon on the tower, which caused the instruments to indicate an erroneously high wind speed at night. The condition existed for approximately 2 ½ years before discovery.

  Callaway Action Request System 200202583 addressed the equipment failures, as well as why the failure went undetected for 2 ½ years, and recommended upgrades to the data acquisition system to address this issue. However, these upgrades were considered by the licensee to be enhancements only, not a corrective action to prevent recurrence, and were not fully implemented. In addition, no additional guidance was provided to the operators when performing channel checks to aid them in identifying these types of failures.

- The wind direction instrument failure was identified in January 2003 and was the result of instrument misalignment following a calibration activity, which caused the instrument to indicate a wind direction offset by 30 to 50 degrees from true wind direction. This condition existed for 3 ½ months before it was discovered.

  Callaway Action Request System 200300533 addressed the second instance of an untimely identification of a meteorological instrument failure. Subsequently, Operations Surveillance Procedure OSP-ZZ-00001, "Control Room Shift and Daily Log Readings and Channel Checks," was revised to provide more specific guidance on performing meteorological instrument channel checks in order to prevent similar conditions from going undetected.

Example: Voids in Containment Spray Piping

Similarly, NRC Inspection Report 05000483/2003004 documented the licensee's failure to recognize a significant condition adverse to quality when anomalous conditions were observed during a containment spray pump surveillance test. The anomalies were caused by voids in the suction piping, however, the licensee did not evaluate this until questioned by the resident inspectors.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed condition reports and supporting documentation, including root-cause evaluations, to ascertain whether the licensee identified and considered the full extent of conditions, generic implications, common causes, and previous occurrences. In addition, the inspectors reviewed licensee evaluations of selected industry operating experience information, including operating event reports and NRC and vendor generic notices, to assess if issues applicable to the Callaway Plant were appropriately addressed. The team also observed management oversight of the CAP including one Corrective Action Review Board.

During the inspection, the team performed a vertical slice review of problem identification and resolution covering the last 5 years regarding the auxiliary feedwater system to determine if the licensee had appropriately addressed historical issue that might be age dependent.

(2) Assessment

The team concluded that problems were generally prioritized and evaluated in accordance with the licensee's CAP and NRC requirements. The team noted improvement in the quality and consistency of root cause evaluations conducted during this period, however, some problems persist in prioritization and evaluation of problems. Corrective actions taken in response to various adverse conditions were appropriate and appear to have prevented recurrences, however, the team concluded that the licensee continues to be challenged by less than rigorous evaluations.

Management oversight of the CAP improved during this period. A Corrective Action Review Board was implemented in June 2003 to review the quality of root-cause evaluations and effectiveness of corrective actions. The team observed that the board was challenging when reviewing corrective action issues, however, one example was identified where a minor non-compliance with Administrative Procedure APA-ZZ-00500, "Corrective Action Program," was not questioned by the board.

In addition, the team identified multiple instances where licensee personnel did not adequately prioritize or evaluate conditions entered in the corrective action program. The following examples describe the team's observations and findings.

Example: Auxiliary Feedwater System Vertical Slice

The team identified several instances where problems with the auxiliary feedwater system were not properly prioritized or evaluated.

In one example, the team concluded that the evaluation of flow induced vibrations in the auxiliary feedwater documented Callaway Action Request System 200200881 lacked sufficient depth in a number of respects. Vibration levels during operation in February 2002 were approximately 25 inches per second, which far exceeded the acceptable level of 1.7 inches per second subsequently determined by the licensee while evaluating this issue. The evaluation also stated that there was no challenge to past operability because functional capability had been demonstrated through satisfactory surveillance testing of the system. The evaluation did not support this conclusion since it did not address whether the pump could fulfill its mission time with the high vibrations. In addition, the evaluation credited operator action for early identification and correction of high vibrations to maintain operability of the auxiliary feedwater system, however, this portion of evaluation did not conform with the guidelines in Generic Letter 91-18, "Resolution of Degraded and Nonconforming Conditions," regarding credit for operator actions. Enforcement aspects associated with this issue were documented in NRC Inspection Report 50-483/2001-007.

The team also reviewed Callaway Action Request System 200401780, which documented a high water content (8 percent) in a turbine-driven auxiliary feedwater pump lube oil sample. The associated operability determination stated no objective criteria for water content in oil to support the licensee's assertion that the pump was operable and functional at the time. Operations personnel would not have known, based on reviewing the Callaway action request system or operability determination at what water concentration the pump was unable to perform its function. The licensee stated that there was no definitive guidance available regarding acceptable water content in lube oil, yet the inspectors were able to find manufacturer-recommended values to restrict usage of various types of oil. Based on this information, and the fact that oil samples were drawn from a low point in the system and were not true representative samples, the team concluded that the pump was operable and functional. Any water in the lube oil system would tend to collect at the sample location, which introduced a significant amount of conservatism in the sample results.

Example: Damage to the Turbine-Driven Auxiliary Feedwater Mechanical Overspeed Trip Device

The team reviewed Callaway Action Request System 200208110, which documented a mechanical overspeed trip of the turbine-driven auxiliary feedwater pump that occurred on December 3, 2002. The cause of the trip was determined to be a bent tappet on the turbine overspeed trip device, but the documented evaluation failed to address what caused this sub-component to be damaged. The inspectors were concerned that the licensee had not performed a formal root cause evaluation for a failure on a risk significant component. Upon further discussion, the licensee was able to demonstrate that they had, in fact, determined the root cause of the damage and had taken adequate corrective actions to prevent recurrence. The licensee agreed that a rigorous approach should be used for evaluating the cause of risk significant component failures and revised their corrective action program to improve the screening process.

Example: Air Binding of Containment Spray Pumps

The team reviewed the root cause evaluation associated with air voiding of a containment spray pump on May 22, 2003. During surveillance testing, anomalous conditions on the pump were not recognized as pump cavitation due to voiding in the suction pipe. The safety significance and compliance aspects of this issue were assessed in NRC Inspection Report 50-483/2003004. The team noted the following weaknesses associated with the root cause analysis:

- Causal Factor 1 concluded that the lack of a pump casing vent valve contributed to the condition. This conclusion was not supported by industry operating experience since plants of similar design, which do not have pump casing vent valves, have not had air binding occurrences.

- Causal Factor 2 established that a procedure revision in 1996 did not incorporate dynamic venting. The team concluded that the root cause was too narrowly focused on this issue and did not adequately address several additional air

voiding events between 1996 and 2003 that represented missed opportunities to identify and correct the condition.

- Causal Factor 3 was too narrowly focused on inadequate training of operators that led to the mis-diagnosis of the event. The root cause did not adequately address other factors, such as the lack of a questioning attitude and the lack of operator experience with gas-voided pumps, that may have contributed to the event.

Example: Residual Heat Removal Pump B Seal Leakage

Introduction. A Green noncited violation of Technical Specification 5.4.1(e) was identified regarding the failure to establish an adequate procedure for minimizing emergency core cooling system leakage outside of containment as required by Technical Specification 5.5.2.

Description. The inspectors reviewed Callaway Action Request System 200206939, which documented a mechanical seal leak on Residual Heat Removal Pump B. The leak was large enough to result in significant contamination of the residual heat removal pump room, yet the Callaway action request system stated that there was no immediate operability concern "based on demonstrated performance in Modes 5 and 6." No consideration was given to how this pump might perform in a post-accident environment or how the leakage of highly radioactive fluid outside of containment during an accident scenario would affect offsite or control room operator dose limits.

Technical Specification 5.5.2 requires programmatic controls to evaluate and minimize leakage from those portions of systems outside of containment that could contain highly radioactive fluids during an accident. Furthermore, Chapter 15 of the Final Safety Analysis Report assumes no more than a 2 gpm leak rate from emergency core cooling systems outside of containment when evaluating the radiological consequences of a loss-of-coolant accident. These requirements are implemented by Engineering Surveillance Procedure ESP-ZZ-00356, "Technical Specification 6.8.4.A (Improved T.S. AC 5.5.2.B) Verification," Revision 2, which integrates leak-rate data from various operations department surveillance tests in order to determine if the 2 gpm limit is satisfied. In the case of Residual Heat Removal Pump B, Operations Surveillance Procedure OSP-EJ-P001B, "RHR Train 'B' In Service Test," Revision 32, is used to determine the system leak rate outside of containment. The procedure establishes a conservative leak-rate acceptance criteria of less than or equal to one drop per minute for all system components except for pump seal leakage. Pump seal leakage is not quantified; it is only visually verified to be contained in the leak-off draining system. Therefore, the licensee's program had no mechanism to determine if the amount of pump seal leakage was acceptable with respect to radiological consequences in a post-accident environment. The same inadequate acceptance criteria for pump seal leakage was found in operations surveillance procedures for the centrifugal charging pumps, safety injection pumps, and containment spray pumps.

Analysis. This finding affected the Barrier Integrity Cornerstone. This finding is not suitable fo evaluation using the SDP because evaluation of the finding's significance involves an estimate of the Technical Specification 5.5.2 program impact on future leakage. The finding was determined to be more than minor because the lack of adequate acceptance criteria for implementation of a technical specification-required program represented a programmatic weakness, which if left uncorrected could become a more significant safety concern. Management review confirmed the violation had very low safety significance, because the licensee was able to demonstrate that the current mechanical seal leakage from Residual Heat Removal Pump B, when integrated with other emergency core cooling system leakage outside of containment, did not exceed the 2 gpm assumption used in the accident analysis.

This finding also had cross-cutting aspects associated with problem identification and resolution. This assessment was based on the fact that the licensee identified the excessive leakage from the Residual Heat Removal Pump B mechanical seal and entered it into their corrective action program, but they failed to perform a complete evaluation of the condition to determine if the leakage was acceptable in terms of potential radiological consequences.

Enforcement. Technical Specification 5.4.1(e) requires written procedures to be established, implemented and maintained covering programs specified in Technical Specification 5.5. Technical Specification 5.5.2 requires a program to evaluate and minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during an accident. Contrary to this, the licensee failed to establish acceptance criteria for mechanical seal leakage from emergency core cooling system pumps to ensure that leakage was maintained below limits assumed in the accident analyses. The finding is not suitable for SDP evaluation, but has been reviewed by NRC management and is determined to be a green finding of very low safety significance. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-483/04006-01). The licensee entered this issue into their CAP as Callaway Action Request System 200402290.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed the condition reports, audits, assessments, and trending reports described in Section 4OA2.a above to verify that corrective actions related to the issues were identified and implemented in a timely manner commensurate with safety, including corrective actions to address common cause or generic concerns. A listing of specific documents reviewed during the inspection is included in the attachment to this report.

The team evaluated the timeliness and adequacy of operability determinations and evaluations. The team reviewed corrective actions planned and implemented by the licensee and sampled specific technical issues to determine whether adequate decisions related to structure, system, and component operability were made.

(2) Assessment

The team determined that the majority of conditions adverse to quality were effectively resolved. However, two exceptions, previously discussed in NRC Integrated Inspection Report 05000483/2003005, were noted where short term, or immediate corrective actions failed to restore compliance with NRC requirements. Those examples were:

- A Green, noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI regarding inadequate corrective actions taken following mis-positioning of an emergency diesel generator rocker arm lube oil valve (NCV 05000483/2003005-02).

- A Green, noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI regarding inadequate corrective actions taken following identification of an unanalyzed condition which resulted in postulated postaccident control room dose limits to be exceeded (NCV 05000483/2003005-03).

d. Assessment of Safety-Conscience Work Environment

(1) Inspection Scope

The team interviewed more than 30 individuals from the licensee's staff, representing a cross-section of functional organizations and supervisory and non-supervisory personnel. These interviews assessed whether conditions existed that would challenge the establishment of a safety-conscience work environment. The team also reviewed recent changes to the employee concerns pogram and discussed trends in concerns brought to the employee concerns program to help assess the safety-conscious work environment. In addition, the team reviewed Callaway Plant's "2003 Nuclear Safety Cultural Assessment," to assess recent efforts to strengthen the safety-conscious work environment.

(2) Assessment

The team concluded that a safety-conscience work environment exists at the Callaway Plant. However, the team received a number of remarks during interviews, which indicated that efforts to improve in this area have not been completely effective. For example, several individuals expressed a lack of confidence in the corrective action program. These same individuals stated that they would rather resolve problems internally within the department rather than utilize the corrective action program. In addition, some individuals did not exhibit ownership of the corrective action program in that they did not think it was part of their job to initiate the Callaway action request system. Rather, they felt it was their supervisor's job to initiate documentation of problems, despite the requirement in Procedure APA-ZZ-00500, which states that all personnel are responsible for promptly documenting the condition in the Callaway action request system. Individuals were generally knowledgeable of the employee concerns program and some individuals volunteered that recent changes to the implementation of the program were a great improvement. However, despite increased advertisement of

the employee concerns program, a few individuals still did not know specific information, such as points of contact or how to initiate an employee concern.

4OA5 Other Activities

(Closed) Unresolved Item 05000483/2003006-04: Failure to Maintain an Emergency Operating Procedure Consistent with the Accident Analysis

The team reviewed the root-cause evaluation associated with the failure to maintain emergency operating procedures consistent with the accident analysis, which concluded that the licensee failed to maintain their emergency operating procedures current with the vendor's (Westinghouse) Emergency Response Guidelines since 1997. This was evidenced by the fact that there were more than 100 temporary change notices issued for the emergency operating procedures and other support procedures, such as the off normal procedures, the oldest dating back to 1996. The team also reviewed the extent of condition evaluation and corrective actions; the licensee adequately bounded the extent of condition and the corrective actions were appropriately prioritized. The licensee has implemented a project to upgrade all emergency operating procedures, which will bring them back to conformance with the vendor guidelines and make them stand-alone procedures. No additional concerns were identified. The enforcement aspects associated with this unresolved issue are discussed in Section 4OA7. This unresolved issue is closed.

4OA6 Exit Meeting

The team discussed the findings with Mr. Affolter and other members of the licensee's staff on April 2, 2004. Licensee management did not identify any materials examined during the inspection as proprietary. At the request of the licensee, a second telephonic exit meeting was held with Keith Young, Mike Evans and other members of the licensee's staff on May 18, 2004.

4OA7 Licensee Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee. This violation of NRC requirements meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a noncited violation.

- Technical Specification 5.4.1(a) requires written procedures to be established and maintained as recommended by Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Appendix A recommends procedures for equipment control. Regulatory Guide 1.33 recommends procedures for combating emergencies and other significant events. Contrary to this requirement, emergency operating procedures have not been maintained consistent with the accident analysis or the Westinghouse Emergency Response Guidelines, Revision 1C. This finding affected the Mitigating Systems Cornerstone and was of very low safety significance since it did not represent the loss of any safety function. This finding also documents closure of Unresolved

Item 05000483/2003006-04, “Failure to Maintain Emergency Operating Procedures Consistent with the Accident Analysis.”

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

S. Bond, Superintendent, System Engineering
D. Brownawell, OE/SA
K. Carroll, Communications Coordinator
W. Claspill, System Engineer
M. Daly, Consulting Engineer, Corrective Action
J. Davis, Operations Senior Engineer
M. Evans, Manager, Nuclear Engineering
F. Forck, Supervisor, Human Performance
J. Gloe, Manager, Operations Support
G. Hamilton, Supervising Engineer, WCM
B. Hampton, Senior Supervisor
R. Harris, Clerk
P. Heiberger, Superintendent, Work Control Scheduling
D. Heider, Corrective Action Program Specialist
M. Hillstrom, QA Engineer
S. Hogan, WCSU Superintendent
L. Kanuckel, Superintendent, Quality Assurance
R. Lamb, General Superintendent, Work Control
A. Ledbetter, Superintendent, Work Control Electrical
S. Maglio, Superintendent, Instrumentation and Controls
V. McGaffic, Superintendent Performance Improvement
P. McKenna, Asst. Superintendent Operations
J. McLaughlin, General Supervisor
B. Miller, Rad/Chem DPC
J. Dubus, Work Control Dept. Performance Coordinator
E. Olson, Superintendent, Chemistry and Rad Waste
S. Petzel, Engineer, Regional Regulatory Affairs
R. Polhman, Consulting Engineer, Systems Engineering
M. Reidmeyer, Supervising Engineer, Regional Regulatory Affairs
R. Rist, Superintendent, Admin.
G. Roesner, Consulting Engineer, Performance/ISI Engineering
R. Roselius, Superintendent, Training
S. Sandbothe, Superintendent, Design
K. Sandstedt, FIN Engineer
J. Schnack, Supervising Engineer, Corrective Action Program
T. Schroer, Admin. Supervisor
J. Small, Supervisor, Chemistry Department
T. Stotlar, Supervising Engineer Design Configuration Control
D. Trokey, Emergency Preparedness
D. Turley, System Engineer, System Engineering
D. Waller, Supervising Engineer
D. Williams, Chief Stewart, Local 148

R. Wink, Supervising Engineer, NESM
W. Witt, Plant Manager
K. Young, Manager, Regulatory Affairs
C. Younie, Manager, Quality Assurance

NRC

M. Peck
D. Graves
J. Hanna

ITEMS OPENED AND CLOSED

Opened and Closed

05000483/2004006-01	NCV	Inadequate Procedure for Implementation of Technical Specification 5.5.2 (Section 4OA2b(2)).

Closed

05000483/2003006-04	URI	Failure to Maintain an Emergency Operating Procedure Consistent with the Accident Analysis (Section 4OA5).

Attachment

DOCUMENTS REVIEWED

PLANT PROCEDURES

Document	Title	Revision
MPE-ZZ-QY054	Inspection and Test of Protective Lockout Relays GE Type HEA	2
ODP-ZZ-T0104	EOP Upgrade Validation Program	Draft
ODP-ZZ-T0101	EOP Upgrade Writer's Manual	Draft
ODP-ZZ-T0100	EOP Upgrade Program Administration	Draft
ODP-ZZ-T0103	EOP Upgrade Verification Program	Draft
APA-ZZ-00395	Significant Operator Response Timing	1
APA-ZZ-00500	Corrective Action Program	34
PDP-ZZ-00023	Work Screening and Processing	2
ETP-AL-ST016	A Train Auxiliary Feedwater Vibration Testing	3/17/04

DRAWINGS

Number	Title	Revision
M-224B-00041	6" Gate Valves	10
M-22AL01 (Q)	Auxiliary Feedwater System	10
M-22FC02 (Q)	Auxiliary Feedwater Pump Turbine	18

Calculations

Number	Title	Revision
ZZ-224	Motor Operated Valve Sizing Calculation	10
AL-37	Auxiliary Feedwater Piping Vibration Evaluation	0
E-009-189-01	Seismic Simulation Test Program 4.16 KV Metal Clad Switchgear	3/21/77
E-017-00399	Seismic Qualification Report for Class 1E Low Voltage Switchgear	6

CONDITION REPORTS

199200257	200202342	200301653	200304247	200309069
199801960	200202653	200302126	200304329	200309070
199900503	200206330	200302413	200304492	200309104
199900527	200206908	200302643	200305087	200309230
199900569	200207266	200302840	200305450	200400272
199903023	200207398	200302932	200305979	200400454
199903183	200207527	200302960	200306326	200400629
199903680	200207808	200302979	200306563	200400791
200000066	200207877	200303004	200307286	200400798
200001314	200207879	200303006	200307681	200400810
200001659	200207935	200303343	200307754	200400990
200001900	200208110	200303693	200307951	200401076
200002566	200208279	200303729	200308052	200401157
200100865	200208280	200303758	200308066	200401167
200102599	200208352	200303801	200308178	200401171
200103077	200208392	200303816	200308245	200401391
200104194	200208470	200303867	200308666	200401398
200107104	200300381	200303910	200308667	200401929
200200627	200300441	200303944	200308668	200402026
200200881	200300569	200303980	200308779	200402377
200201014	200301136	200304148	200308846	200402377
200201179				

OTHER

GE SAL 351.1	New Prop Spring Modification to Type AM breakers	28 APR 1995
GE SAL 351.1A	New Prop Spring Modification to Type AM breakers	18 Oct 1996
GE SAL 351.1B	New Prop Spring Modification to Type AM breakers	29 Jan 2001
T721444	Chemistry PM Task Sheet- Monthly check for Expired Chemicals	
RFR 22742	Evaluate AL System Piping Vibration	A
RFR 20411B	Mod Request to Upgrade PORV Circuitry to Class 1E	5/16/02
RFR 18059B	Seismic Evaluation of Load Center Breakers in ROD Position	

Chemistry Safety Team Minutes, March 12, 2004

Callaway Work Control Summary- completion of PM for Expired Chemicals, March 26, 2004

Work Order W216691
Work Order W216692
Work Order W687647

AmerenUE e-mail dated March 25, 2004, from Keith Mills to Michael Evans, describing the mission time of the Turbine-Driven Auxiliary Feedwater System Pump

Plot of AFW pump discharge pressure versus time on December 3, 2001

Historical vibration trending data for Auxiliary Feedwater Pumps from 1994 to present

Plots of flow versus differential pressure for A and B Motor Driven Auxiliary Feedwater Pumps on March 31, 2003

Corrective Action Program Health Reports for January 2004 through March 2004

Emergency Operating Procedures Upgrade Program Plan, January 10, 2004

SA03-OP-F03, “Self-Assessment Report-Emergency Operating Procedures”, September 10, 2003

FSAR Section 15.0.13 “Operator Actions”

Operability Determination, EOSL 10967, “Failure of BBHV8000B to meet stroke time test”

Operability Determination, EOSL 11158, “Need to maintain one PZR PORV operable with its Block valve open”

System Health Report, NB System Magne-Blast Breakers Prop Spring Modification, March 23, 2004

Chemistry System Health Report, February 2004

INITIAL MATERIAL REQUESTED

Information Request 1
Callaway PIR Inspection (IP 71152; Inspection Report 50-483/04-006)

The inspection will cover the period of December 18, 2002 through March, 2004. All requested information should be limited to this period unless otherwise specified. If possible, please provide all information in the electronic format, preferably on CDs.

Please provide the following information to Scott Schwind at the Cooper Nuclear Station Resident Office March 12, 2004:

1. Summary list of all currently open/active items for:

   condition reports of significant conditions adverse to quality
   operator work-arounds and operator burdens
   engineering review requests
   corrective maintenance requests
   temporary modifications
   procedure change requests
   control room and safety system deficiencies (EOSL, Defeated Annunciator Log)

2. Summary list of all items completed/resolved/closed since December 18, 2002 for:

   condition reports of significant conditions adverse to quality
   operator work-arounds and operator burdens
   engineering review requests
   corrective maintenance requests
   temporary modifications
   procedure change requests
   control room and safety system deficiencies (EOSL, Defeated Annunciator Log)

3. Summary list of all adverse conditions entered into Callaway action request system during the specified period and sorted by lead organization and chronology.

4. Summary list of all action notice generated during the specified period and sorted by lead organization and chronology.

5. All quality assurance audits and surveillance of corrective action activities since December 18, 2002.

6. All corrective action activity and functional area self-assessments and Non-NRC third party assessments since December 18, 2002.

7. Corrective action performance trending/tracking information generated since December 18, 2002 and broken down by functional organization.

8. Any additional governing procedures/policies/guidelines for:

   Condition Reporting
   Corrective Action Program
   Root Cause Evaluation/Determination
   Operator Work-Arounds
   Work Requests
   Engineering Requests (Request for Resolution)
   Temporary Modifications
   Procedure Change Requests
   Deficiency Reporting and Resolution
   Operating Experience Evaluation

9. For each of the items (items 10 - 13, as applicable to Callaway) listed below please provide the following:

   Full text of the condition report (please indicate any findings that did not result in a condition report or corrective actions)
   Any “Roll-up” or “Aggregating” Conditions Reports related to the generic communication or condition report.
   Root Cause analysis report (if applicable)
   Risk significance assessments
   Probable Cause evaluation (if applicable)
   Approved corrective actions
   Basis for extending originally approved due dates
   Evidence of corrective action completion (work packages, design change documentation, temporary modifications, training lesson plans/material, training attendance records, procedure revisions, etc.)

10. Part 21 Reports *2003*-## through *2004*-##

11. NRC Information Notices *2003*-## through 2004-##

12. All LER’s issued since December 18, 2002.

13. All Noncited violations and Violations issued since December 18, 2002.

14. All condition reports (full packages), action requests, and post-trip reviews associated with the last three plant trips and the safety injection.

15. All condition reports (full packages) associated with the “EOP Timing Action Plan.” Include any white papers, team charters, etc... dealing with this action plan (basically, what is driving the action plan).

16. All condition reports (full packages) generated since December 18, 2002 regarding air voiding in the containment spray system. Include any condition reports that may have been generated as a result of an extent of condition review.

17. All condition reports (full packages) dealing with auxiliary feed systems generated since March, 1999.

18. All condition reports (full packages) dealing with the 10 CFR 50, Appendix B, Criterion XVI violation (NCV 2003010-01) regarding Magne-Blast breakers.

19. All condition reports (full packages) generated since December, 2002 regarding the failure of a pressurizer PORV block valve.