U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/95003(DRSS)

Docket No. 50-483 License No. NPF-30

Licensee: Union Electric Company
Post Office Box 149 - Mail Code 400
St. Louis, MO 63166

Facility Name: Callaway

Inspection At: Callaway Site, Steedman, MO

Inspection Conducted: January 23-27, 1995

Inspectors: James E. Foster 2/17/95
J. Foster Date

James E. Foster for 2/17/95
R. Jickling Date

Approved By: James E. Foster for 2/17/95
J. W. McCormick-Barger, Chief Date
Radiological Programs Section 1

Inspection Summary

Inspection on January 23-27, 1995 (Report No. 50-483/95003(DRSS))
Areas Inspected: Routine, announced inspection of the operational status of the Callaway Plant's emergency preparedness (EP) program (IP 82701) by two inspectors and follow-up on licensee actions on previously identified items (IP 82301/82701).
Results: No violations or deviations were identified. The overall status of the emergency preparedness program was excellent, with several improvement initiatives in progress. Response facilities were in a state of operational readiness. Audits and surveillances of the program satisfied the requirements of 10 CFR 50.54(t). A comprehensive audit/surveillance program was in place. The emergency planning organization was adequately staffed.

DETAILS

1.0 Licensee Action on Previously Identified Items (IP 82301)

(Closed) Inspection Followup Item No. 50-483/93007-01: The need for the licensee to reevaluate the split Operational Support Center (OSC) concept. The split OSC concept was evaluated and abandoned. The OSC command room had been moved to be adjacent to the Technical Support Center (TSC), and the licensee planned to move the OSC workforce area (Service Building) to the same area when modifications to the Technical Support Center/OSC are complete. This item is closed.

(Closed) Inspection Followup Item No. 50-483/93014-01: Emergency Plan Implementing Procedures were not available at the Auxiliary Shutdown Panel (ASP). The licensee had reviewed this concern, and decided that reviewing/performing Emergency Plan Implementing Procedures, and determining accident classifications at the ASP was inappropriate. The licensee stated that such actions, including event emergency classification, would be performed at the TSC under conditions where use of the ASP would be necessary. The inspector agreed that the ASP was a poor location for procedure review and implementation. This item is closed.

(Closed) Violation No. 50-483/93014-02: Failure of the Radiological Release Information System (RRIS) to provide an accurate prediction of a radioactive release. The licensee has declared the dose assessment portion of the RRIS inoperable, and designated the former backup methodology, a PC-based system (XDACALC) as the primary system. Efforts at revising the PC-based system to incorporate a new source term and a user-friendly interface were nearly complete. Validation and verification tests of the revised system (PCDose, Rev 16) had been successful. A change to the plant Emergency Plan documenting these changes had been submitted to the NRC for review and approval. This item is closed.

(Closed) Violation No. 50-483/93014-03: Periodic retraining of personnel assigned the position of Dose Assessment Coordinator was not effective. As noted above, the RRIS system is no longer in use for dose projection. Remedial training in use of the backup PC-based program was completed by October 1, 1993. Changes to the dose assessment software will require a revised training module. This item is closed.

(Closed) Violation No. 50-483/93014-04: Corrective actions had not been taken on deficiencies identified in critique sheets for the Radiological Assessment Course. Further licensee review indicated that six of seven critique items submitted in 1992 were incorporated into the 1993 training, and the seventh item was being carried as an open item. Inaccurate close-out information had been entered in the action tracking system. The individual responsible for the inaccurate entry was counseled, and the tracking system was updated. All emergency preparedness items for the previous two years were also reviewed. This item is closed.

2.0 Operational Status of the Emergency Preparedness (EP) Program (IP 82701)

2.1 Actual Emergency Plan Activations

There have not been any actual activations of the Emergency Plan since the last routine inspection. Discussion with licensee personnel indicated that adequate procedures exist for post-activation record gathering and activation evaluations/critiques.

No violations or deviations were identified.

2.2 Emergency Plan and Implementing Procedures

The licensee has implemented the Nuclear Utilities Management And Resource Center (NUMARC) Emergency Action Levels (EALs). Environmental Protection Agency EPA-400 radiological exposure guidance was incorporated. Revision 18 of the Emergency Plan, incorporating staffing and dose projection changes had been submitted to the NRC for review.

Implementing procedures EIP-ZZ-00212, "Protective Action Recommendations," revision 12, and EIP-ZZ-00240, "Technical Support Center Operations," revision 13, were reviewed. No problems or concerns were identified.

No violations or deviations were identified.

2.3 Emergency Response Facilities, Equipment, Instrumentation and Supplies

Tours were conducted through the Control Room, Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF). Each facility was well maintained and in an operational state of readiness. The inspectors verified that adequate numbers of current copies of the Emergency Plan and Emergency Plan Implementing Procedures and appropriate forms were present in each emergency response facility. In the Control Room, "packets" had been developed for each position, containing relevant procedures and forms.

Significant changes were made to the layout of the EOF, TSC, and OSC. These changes were essentially completed, but some minor items such as redistributing the telephones on the communicators desk in the TSC, and designating locations for the NRC Site Team, remained to be completed.

Documents reviewed indicated that emergency equipment inventories and maintenance were generally very good, with timely corrective actions taken where deficiencies were identified. No problems or concerns were identified.

Discussions were held with the licensee regarding backup communications capabilities. In addition to the dedicated and commercial telephone lines, microwave and radio backups provide adequate offsite communications capabilities.

Equipment surveillances were reviewed, including siren tests, monthly communications checks, annual communications checks and inventories. No problems or concerns were identified.

No violations or deviations were identified.

2.4 Organization and Management Control

During 1994, the EP department was restructured, and over half of the Emergency Preparedness (EP) staff were reassigned to other departments. EP staff have relocated from the EOF to the General Service Building, enhancing communication with plant staff. Various responsibilities had also been relocated; Field Monitoring team procedures and emergency radiological control procedures were the responsibility of the Health Physics Department, and siren maintenance was the responsibility of Engineering. The training department had responsibility for onsite emergency training, including developing exercises and drills, while the EP Department retained offsite training responsibilities.

Records indicated that periodic Emergency Management Director Meetings were held between the EP staff and offsite authorities.

No violations or deviations were identified.

2.5 Training

Records indicated that drills and exercises were formally critiqued, and significant critique items were selected for corrective action, as appropriate.

Interviews held with two selected emergency response personnel indicated that these persons had good knowledge of their emergency responsibilities and procedures. No problems were identified.

The inspectors reviewed Surveillance Report SP93-055, conducted August 30 - September 10, 1993 The surveillance assessed the effectiveness of emergency response training, particularly in the use of the Radioactive Release Information System (RRIS) via use of table-top drills. QA determined that retraining had not been effective in maintaining proficiency on the RRIS. Suggestion Occurrence Solution (SOS) 93-1015 was issued to address the deficiency.

Surveillance reports USEP 94-77, "Annual Exercise, June 8, 1994," USEP 94-73, "Pre-Exercise Drill, May 11, 1994," and USEP 94-64,

"OSC/TSC Mini Drill, April 13, 1994," were reviewed. Critique items were itemized and well tracked. No problems or concerns were identified.

Review of the objectives for exercises/drills held from May 9, 1990 through June 9, 1993 indicated that activation of the Backup Emergency Operations Facility (BEOF) had not been included as an objective. This is a six-year demonstration objective, as delineated in NUREG-0654. Inclusion of activation of the BEOF as a drill or exercise objective will be tracked by Inspection Followup Item 50-483/95003-01.

Discussion with licensee personnel indicated that the training for key emergency response personnel did not include instruction on the incident response programs of the NRC or the Department of Energy. Actions to include this information in training modules for key personnel will be tracked by Inspection Followup Item 50-483/95003-02.

An EP Communicator training class for Instrumentation & Control technicians, conducted in the simulator, was observed. This performance based, hands on training appeared to be very effective.

Key emergency response personnel training qualifications were verified for 127 persons. All emergency response personnel records reviewed were current and no problems were identified.

No violations or deviations were identified.

2.6 Audits

The inspector reviewed Quality Assurance Department Audit Report AP94-005, conducted by nine individuals during May 9, 1994 through June 16, 1994. The audit included observations of the 1994 pre-exercise and exercise, maintenance of facilities and supplies, follow-up on NRC violations, corrective actions and critiques, drills and exercises, and the adequacy of the interface with offsite authorities. The audit concluded that the EP program has been effectively implemented and maintained.

Aspects of the audit and surveillance program were discussed with the lead auditor for the EP functional area. Records of audits and surveillances conducted since the 1994 inspection were also reviewed.

The 1994 audit and surveillances of the EP program satisfied the requirements of 10 CFR 50.54(t) with respect to their scope and included an assessment of the effectiveness of the licensee's interfaces with State and local emergency response agencies. Records also indicated that the EP staff made relevant audit results available to State and county officials.

The overall quality of the 1994 audit and surveillances was excellent. Heavy emphasis was placed on performance based auditor activities, such as observing drills and exercises, or ongoing periodic equipment inventories and operability tests.

Review of the 1995 planned audits and surveillances indicated a comprehensive audit/surveillance program was in place.

No violations or deviations were identified.

2.6 Shift Augmentation

A licensee task team was developed, starting in 1991, to address concerns regarding the ability to achieve acceptable staff augmentation response times. The task team identified the time necessary to complete the callout as the root cause of previous slow augmentation times. A computerized callout system was purchased in an effort to reduce the time necessary for completing calls.

Licensee personnel indicated that they were unclear as to the acceptance criteria for augmentation drills. An approach where success criteria would be based on the time when adequate staff would be available (minimum staffing) to declare a response facility operational was discussed. Actions to resolve the adequacy of the augmentation procedure will be tracked as Inspection Followup Item 50-483/95003-03.

2.7 Test Observation

On the evening of January 24, 1995 the inspectors observed a successful test of the automated emergency callout system. The system, developed by Microlog Corporation, utilizes computerized dialing, messages, and response recognition to fill emergency response positions. The system called assigned individuals on 24 telephone lines and automatically generated reports on individuals responding their availability to fill an assigned position. The system functioned very well.

No violations or deviations were identified.

3.0 Inspection Followup Items

Inspection followup items are matters which have been discussed with licensee management, will be reviewed further by the inspectors, and involve some action on the part of the NRC, the licensee or both. Followup items disclosed during the inspection are discussed in paragraphs 2.5 and 2.6.

4.0 Exit Interview

The inspectors held an exit interview on January 27, 1995 with those

licensee representatives identified below to present and discuss the preliminary inspection findings. The licensee indicated that none of the matters discussed were proprietary in nature.

Key Persons Contacted

Union Electric Company

G. Randolph, Vice President, Nuclear Operations
J. Laux, Manager, Quality Assurance
J. Neudecker, Supervisor, Emergency Preparedness
M. Evans, Superintendent, Health Physics
A. White, Training
D. Lewis, Training
G. Hamilton, Supervisory Engineer, QA
G. Pendergraff, Engineering Evaluator, QA
J. Barbour, QA Engineer

The above and other licensee staff attended the exit interview. The inspectors also contacted other licensee personnel during the inspection.