



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W.
 ATLANTA, GEORGIA 30323

SEP 08 1989

Report No.: 50-261/89-15

Licensee: Carolina Power and Light Company
 P. O. Box 1551
 Raleigh, NC 27602

Docket No.: 50-261

License No.: DPR-23

Facility Name: H. B. Robinson Steam Electric Plant, Unit 2

Inspection Conducted: August 14-17, 1989

Inspector: James L. Kreh 6 Sept. 1989
 J. L. Kreh Date Signed

Approved by: Eldon D. Tatum for 9/7/89
 W. H. Rankin, Chief Date Signed
 Emergency Preparedness Section
 Emergency Preparedness and Radiological
 Protection Branch
 Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, unannounced inspection was conducted to assess the operational readiness of the site emergency preparedness program, and included review of the following programmatic elements: (1) Emergency Plan and associated implementing procedures; (2) emergency facilities, equipment, instrumentation, and supplies; (3) organization and management control; (4) training; and (5) independent reviews/audits.

Results:

The licensee's emergency preparedness program appeared to be well organized and effectively managed. Emergency facilities and equipment were properly maintained. An interview with one Shift Foreman (the position designated as interim Site Emergency Coordinator) suggested that emergency response training was effective. Required program audits and drill/exercise critiques were thorough, and a system was in place for tracking the correction of problems in emergency preparedness. No violations or deviations were identified. The findings of this inspection indicated that the licensee was adequately prepared to respond to an emergency at the Robinson Plant.

8509150245 850905
 PIR ADDCK 05000261
 PIC

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- G. Bowen, Training Assistant
- *R. Crook, Senior Specialist, Regulatory Compliance
- *J. Curley, Director, Regulatory Compliance
- C. Dietz, Manager, Robinson Nuclear Project
- *W. Gainey, Jr., Operations Support Supervisor
- *R. Johnson, Manager, Control and Administration
- D. McCaskill, Shift Foreman
- *B. McFeaters, Project Specialist, Emergency Preparedness
- *R. Morgan, Plant General Manager
- *M. Morrow, Senior Specialist, Emergency Preparedness
- *D. Quick, Manager, Maintenance
- *R. Smith, Manager, Environmental and Radiation Control
- S. Wallace, Technical Aide, Emergency Preparedness
- *L. Williams, Supervisor, Emergency Preparedness and Security
- *H. Young, Director, Quality Assurance/Quality Control

Other licensee employees contacted during this inspection included operators, technicians, and administrative personnel.

NRC Resident Inspectors

- *L. Garner
- *K. Jury

*Attended exit interview

2. Emergency Plan and Implementing Procedures (82701)

Pursuant to 10 CFR 50.47(b)(16), 10 CFR 50.54(q), Appendix E to 10 CFR Part 50, and Section 5.6.2 of the licensee's Emergency Plan, this area was inspected to determine whether significant changes were made in the licensee's emergency preparedness program since the inspection in September 1988, to assess the impact of any such changes on the overall state of emergency preparedness at the facility, and to determine whether the licensee's actions in response to actual emergencies were in accordance with the Emergency Plan and its implementing procedures.

The inspector reviewed the licensee's system for making changes to the Emergency Plan and the Plant Emergency Procedures (PEPs). The inspector confirmed that licensee management approved all revisions to the PEPs and the Emergency Plan issued since September 1988. For a selected sample of PEP revisions, the inspector verified the licensee's submittal of each to the NRC within 30 days of the approval date, as required. Copies of the Emergency Plan and PEPs located in the Control Room, Technical Support

Center (TSC), and Emergency Operations Facility (EOF) were inspected and found to be current revisions.

The latest revision of the Emergency Plan (Revision 22, dated May 26, 1989) radically altered the format of the emergency classification system by replacing the standard matrix with an Emergency Action Level (EAL) Flowpath (an approach also adopted at the licensee's Brunswick and Harris plants). The NRC's formal review of Revision 22 was in progress at the time of the inspection. The inspector's review of selected portions of the EAL Flowpath indicated that the system was user-friendly and produced results which were consistent with applicable NRC guidance. Through selective review of the Emergency Plan and PEPs, the inspector ascertained that no other significant changes in the emergency preparedness program were implemented since the last inspection.

The inspector reviewed records pertaining to the emergency declarations which had occurred since September 1, 1988. All of these declarations were at the Notification of Unusual Event level. The following is a compendium of the referenced events.

<u>Date</u>	<u>Description of Event</u>
September 22, 1988	Shutdown required by Technical Specifications due to inoperability of certain containment isolation valves
October 14, 1988	Same as above
January 7, 1989	Release of flammable gas (hydrogen) into station air and instrument air systems with attendant risk to personnel and equipment
February 27, 1989	Safety Injection caused by loss of control power to unit turbine

The documentation of these events showed that notifications to State and local governments and the NRC were made in accordance with applicable requirements. Each of the listed events appeared to have been classified correctly. The emergency preparedness staff routinely reviewed the response to each declared emergency in order to identify problems or inconsistencies which may have occurred with respect to the requirements of the PEPs.

No violations or deviations were identified.

3. Emergency Facilities, Equipment, Instrumentation, and Supplies (82701)

Pursuant to 10 CFR 50.47(b)(8) and (9), 10 CFR 50.54(q), and Section IV.E of Appendix E to 10 CFR Part 50, this area was inspected to determine whether the licensee's emergency response facilities (ERFs) and associated

equipment, instrumentation, and supplies were maintained in a state of operational readiness, and to assess the impact of any changes in this area upon the emergency preparedness program.

The inspector toured the following ERFs: Control Room, Operations Support Center (OSC), TSC, and EOF. Selective examination of emergency equipment and supplies therein indicated that an adequate state of readiness was being maintained.

The inspector verified the existence of an active surveillance program and selectively reviewed documentation of same (for the period September 1, 1988 to the present) for each of the following areas:

- TSC/EOF supplies and equipment (inventoried quarterly)
- Emergency Notification System (ENS) extensions at the TSC and EOF (tested monthly)
- Public Notification System sirens (silent test weekly, growl test quarterly, full-cycle test annually)
- Selective Signaling System - hotline to State and counties (tested weekly)
- ROLM telephone circuits in TSC and EOF (tested monthly)
- South Carolina Emergency Preparedness Division radio equipment - backup communications system (tested monthly)

Surveillance records indicated that identified problems were corrected expeditiously.

Based upon review of the Emergency Plan, ERF walk-downs, and statements by licensee representatives, the inspector concluded that no significant ERF changes were made since September 1988.

No violations or deviations were identified.

4. Organization and Management Control (82701)

Pursuant to 10 CFR 50.47(b)(1) and (16) and Section IV.A of Appendix E to 10 CFR Part 50, this area was inspected to determine the effects of changes in the licensee's emergency response organization and/or management control systems on the emergency preparedness program, and to verify that such changes were properly factored into the Emergency Plan and PEPs.

The organization and management of the emergency preparedness program were reviewed. In October 1988, an organizational change placed a layer of management between the Senior Specialist, Emergency Preparedness (SSEP), and the Manager, Control and Administration. The SSEP reported to the

Supervisor, Emergency Preparedness and Security, as a result of this change. Discussions with the three individuals who held the positions just listed indicated that this change has had a net positive effect on the emergency preparedness program because of the availability of administrative resources from the Security staff when needed. There was no change in the duties assigned to the SSEP.

There were no changes in the support arrangements with offsite response organizations, nor were there any changes in the lead personnel among the county emergency preparedness offices since the September 1988 inspection. However, at the State level, a new Director of the Emergency Preparedness Division assumed his post on July 1, 1989.

The inspector noted some desirable refinements in the way the licensee assigned personnel to the emergency response organization (ERO). Careful consideration was given to residence-to-plant travel times in determining the primary and alternate assignments for each principal ERO position. As part of the quarterly update of the Emergency Response Directory, the assignments of persons who had relocated their residences were reviewed. In addition, single parents of small children were typically assigned as alternates for their ERO positions in consideration of anticipated response delays during an off-hours activation.

As required by Section 5.3.2 of the Emergency Plan, the licensee was conducting periodic drills to test the ERO augmentation capability specified in Table 5.3.2-1, "Onshift and Additional Staffing for Emergencies." Such off-hour drills were conducted during 1988 on August 26, September 29, and November 7. The first of these drills was an unsuccessful demonstration which resulted in issuance of licensee Nonconformance Report (NCR) 88/109 and an NRC Inspector Follow-up Item (IFI) (see Paragraph 7.b). The September 29, 1988 drill involved real-time notification of ERO members, with each available person requested to provide an ETA. On November 7, 1988, personnel actually reported to the plant in a "full-scale" augmentation drill initiated at 5:00 a.m. The documentation of these drills was thorough, and the results verified the licensee's stated augmentation capability. The onsite Quality Assurance organization closed NCR 88/109 on November 11, 1988.

No violations or deviations were identified.

5. Training (82701)

Pursuant to 10 CFR 50.47(b)(2) and (15), Section IV.F of Appendix E to 10 CFR Part 50, and Section 5.6.1 of the Emergency Plan, this area was inspected to determine whether the licensee's key emergency response personnel were properly trained and understood their emergency responsibilities.

The licensee's emergency response training program was described in the Emergency Plan and in PEP-653, "Performance of Training, Drills, and Exercises." The inspector reviewed these documents along with selected

lesson plans (which were observed to be detailed and well structured) and student handouts, and interviewed members of the instructional staff. Based on these reviews and interviews, the inspector determined that the licensee had established an adequate emergency training program.

Records of training for 10 selected key members of the ERO were reviewed. The training records revealed that assigned personnel, including some designated as alternates, were provided with training which was appropriate, in terms of content and frequency, and consistent with applicable requirements.

To gauge the effectiveness of the emergency response training program, an extensive interview was conducted with one Shift Foreman, the position designated as interim Site Emergency Coordinator (SEC). The interview examined the Shift Foreman's general knowledge of emergency response as well as his specific understanding of such matters as emergency classification, onsite and offsite protective actions, notification, and nondelegable responsibilities of the SEC. The interviewee was given several sets of hypothetical emergency conditions and plant data, and was asked for each case to talk through the response he would provide as SEC if such conditions actually existed. Classification by means of the EAL Flowpath typically required 5 minutes. The interviewee demonstrated a thorough understanding of the concept and the specifics of the emergency response program. The inspector also interviewed an operator designated by the Shift Foreman as offsite communicator. This individual demonstrated familiarity with notification forms and procedures. At the inspector's request, unannounced tests of the Selective Signaling System and the ENS were conducted by the designated communicator. No problems were observed during these interviews.

No violations or deviations were identified.

6. Independent Review/Audits (82701)

Pursuant to 10 CFR 50.47(b)(14) and (16) and 10 CFR 50.54(t), this area was inspected to determine whether the licensee had performed an independent review or audit of the emergency preparedness program, and whether the licensee had a corrective action system for deficiencies and weaknesses identified during exercises and drills.

Licensee records showed that the required independent audit was accomplished as part of a review of plant programs in the areas of Operations, Security, and Emergency Preparedness, conducted June 12-23, 1989, and documented in Audit Report No. QAA/0020-89-02, dated July 13, 1989. The audit identified no nonconformances or other problems in the emergency preparedness program. Copies of the report were sent to cognizant officials of the State and Darlington, Chesterfield, and Lee Counties.

Deficiencies identified during audits, drills, and exercises were tracked for follow-up on a computer-based file called the Emergency Preparedness Tracking System. A printout of this file showed 79 open items as of August 16, 1989. For each item, corrective action responsibility and a due date were assigned. The licensee was effectively using this system as a tool for ensuring the completion of corrective actions for identified problems in emergency preparedness.

No violations or deviations were identified.

7. Action on Previous Inspection Findings (92701)

- a. (Closed) Unresolved Item 50-261/88-06-02: Reporting requirement associated with loss of emergency siren capability.

In the face of inconsistent criteria among the licensee's three nuclear facilities and nonspecific NRC guidance, the licensee has uniformly defined the "major loss" of the offsite notification system capability referenced in 10 CFR 50.72(b)(1)(v) as a loss of 20 percent or more of the sirens or loss of all sirens in any one county. This definition was formalized in Administrative Procedure AP-030, "NRC Reporting Requirements," Revision 8. The specified regulation requires a one-hour report to the NRC for various nonemergency events.

- b. (Closed) IFI 50-261/88-22-01: Ensuring timely closeout of NCR 88/109 and conducting periodic, unannounced off-hour drills to demonstrate timely response of augmentation personnel.

The basis for closure of this item is discussed in Paragraph 4.

8. Exit Interview

The inspection scope and results were summarized on August 17, 1989, with those persons indicated in Paragraph 1. Although proprietary information was reviewed during this inspection, none is contained in this report. Licensee management was informed that two previous findings were considered to be closed, as discussed in Paragraph 7.