



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

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Report No.: 50-261/92-18

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: June 15-19, 1992

Lead Inspector: W. H. Rankin 7/15/92
 for J. L. Kreh, Radiation Specialist Date Signed

Inspector: W. H. Rankin 7/15/92
 for A. Gooden, Radiation Specialist Date Signed

Accompanying Personnel: G. Meeker (COMEX Corporation)

Approved by: W. H. Rankin 7/15/92
 W. H. Rankin, Chief Date Signed
 Emergency Preparedness Section
 Radiological Protection and
 Emergency Preparedness Branch
 Division of Radiation Safety
 and Safeguards

SUMMARY

Scope:

This routine, announced inspection was conducted to assess the status of the licensee's ongoing Emergency Preparedness Improvement Program (EPIP), to observe a tabletop drill on June 19, and to evaluate the operational readiness of the site emergency preparedness (EP) program with respect to the following programmatic areas: (1) emergency classification and detection, (2) protective action decision-making, (3) notifications and communications, (4) shift staffing and augmentation, (5) training, (6) dose calculation and assessment, and (7) public information program.

Results:

In the areas inspected, no violations or deviations were identified. The EPIP has thus far produced a higher level of management attention and an increase in the staff dedicated to the EP program, as well as progress toward major enhancements in the EP training program. The overall performance of the emergency response organization during the observed drill was satisfactory. The following matters (each the subject of an exercise weakness in November 1991) were identified as continuing problem areas during operator walk-throughs: (1) failure to demonstrate the ability to make a correct protective action recommendation (Paragraph 3), and (2) failure to adequately demonstrate dose assessment capabilities (Paragraph 7).

The licensee issued an Adverse Condition Report (ACR) to address each of the following NRC-identified discrepancies:

(1) documentation of monthly communications tests with State and local authorities not clear regarding which Selective Signaling System locations are tested (Paragraph 4); (2) substantive inconsistencies in the documentation of surveillance testing of the offsite siren system (Paragraph 4); (3) lack of documented comparisons by the licensee between its dose assessment methodology and those of the NRC and the State (Paragraph 7); (4) lack of provision for promptly providing safety information brochures to new customers served by the electric cooperatives in the 10-mile EPZ (Paragraph 8); (5) absence of safety information booklets for transients at all five of the offsite establishments surveyed (Paragraph 8).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

C. Anderson, EP Consultant (Paragon Technical Corporation)
*R. Barnett, Manager, Outages and Modifications
J. Bass, Shift Technical Advisor
*C. Bethea, Manager, Training
*R. Chambers, Plant General Manager
J. Cox, Shift Technical Advisor
R. Femal, Shift Supervisor
*W. Gainey, Manager, Plant Support
*M. Gann, Specialist, EP
*A. Garrou, Project Specialist, Corporate EP
*J. Harrison, Manager, Regulatory Compliance
*R. Howell, Senior Specialist, Nuclear Assessment Department
*R. Indelicato, Manager, Corporate EP
*P. Jenny, Manager, EP
K. Jones, Shift Technical Advisor
M. Jordan, Information Specialist, Robinson Information Center
D. Knight, Shift Supervisor
B. Long, Supervisor, Substation Maintenance
T. Lucas, Specialist, EP
B. Pritchard, Specialist, Technical Training - Radiation Control
L. Ratliffe, Project Specialist, Corporate Health Physics
L. Smith, Manager, Technical Training
W. Stover, Shift Supervisor

Other licensee employees contacted during this inspection included operators, engineers, technicians, security force members, and administrative personnel

Nuclear Regulatory Commission (NRC)

*L. Garner, Senior Resident Inspector
*C. Ogle, Resident Inspector

*Attended exit interview on June 18, 1992

2. Emergency Detection and Classification (82201)

Pursuant to 10 CFR 50.47(b)(4), Sections IV.B and IV.C of Appendix E to 10 CFR Part 50, and Section 5.2 of the Robinson Emergency Plan, this program area was inspected to determine whether the licensee used and understood a standard emergency action level (EAL) and classification scheme.

The edition of the Robinson Emergency Plan in effect at the time of the current inspection was Revision 23, dated September 23, 1991.

The inspector reviewed the licensee's event classification methodology as found in the Emergency Plan and the Plant Emergency Procedures (PEPs). The specific emergency action level (EAL) criteria used for this purpose were contained in Attachment 6.9 to the Emergency Plan and in PEP-101, "Initial Emergency Actions." The EALs were presented in the form of two flow charts, identified as "EAL-1" and "EAL-2" (both were Revision 3, dated 01/18/91). Selected EALs were reviewed and found to be consistent with NRC guidance contained in Appendix 1 to NUREG-0654. The inspector determined that the classification scheme did not contain impediments or errors which could lead to incorrect or untimely classification of emergency conditions. The inspector noted that many of the EALs were appropriately based on parameters obtainable from Control Room instrumentation.

The inspector reviewed records pertaining to the two emergency declarations which occurred between January 1, 1991 and the date of the current inspection. (Refer to Paragraph 3 of NRC Inspection Report No. 50-261/92-11 for a discussion of the operational aspects of the incidents.) These are summarized as follows:

Event date	04/13/92	04/15/92
Classification	Notification of Unusual Event	Alert
Time declared/terminated	1343/1540	1253/1411
Event description	Loss of both Emergency Diesel Generators	Unplanned release of toxic gas (carbon dioxide) into a Vital Area with plant at cold shutdown

Review of licensee documentation of these events disclosed that the actions of the emergency response organization (ERO) were in accordance with applicable requirements of the PEPs, including classification and notifications (initial as well as updates) to State and local governments and the NRC. The EP staff routinely reviewed the response to each emergency declaration in order to identify "lessons learned"

from any problems or inconsistencies which occurred during the implementation of the Emergency Plan.

The authority and responsibility for the classification of emergency events and the initiation of emergency actions were described in PEP-101, "Initial Emergency Actions." Interviews with three Control Room crews (see Paragraph 6 for details regarding the conduct of these interviews) verified that each crew's Shift Supervisor understood his role as interim Site Emergency Coordinator (SEC), including his authority and responsibility with respect to event classification. During walk-through evaluations, each of the three Shift Supervisors showed proficiency and familiarity with the use of the EAL flow charts as they correctly categorized postulated accident conditions in the appropriate emergency class.

The inspector reviewed the licensee's required coordination of EALs with State and local officials. Licensee personnel conducted meetings during January 1992 to review the Robinson EALs with officials from the State of South Carolina and the three counties in the 10-mile emergency planning zone (EPZ), according to an internal memorandum dated January 27, 1992 (M. Gann to P. Jenny).

No violations or deviations were identified.

3. Protective Action Decision-Making (82202)

Pursuant to 10 CFR 50.47(b)(9) and (10), Section IV.D.3 of Appendix E to 10 CFR Part 50, and Section 5.4.4 of the Emergency Plan, this area was inspected to determine whether the licensee was maintaining a continuous capability to (1) assess emergency conditions, (2) make appropriate recommendations to governmental officials to protect the public, and (3) take appropriate measures to protect onsite workers in the event of an emergency.

The inspector determined through review of the Emergency Plan and PEPs that authority and responsibility for accident assessment and protective action decision-making were clearly assigned and were available on a 24-hour basis. Interviews with members of the ERO indicated that these personnel understood their authorities and responsibilities with respect to accident assessment and protective action decision-making.

Walk-through evaluations involving protective action decision-making were conducted with three Control Room crews (see Paragraph 6 for details of the conduct of these walk-throughs). As designated interim SEC, the Shift Supervisor of each crew appeared to be cognizant of appropriate onsite

protective actions and aware of the range of PARs appropriate to protection of the public. However, weaknesses were noted during the walk-throughs, as follows:

- During the "discussion" phase, some of the interviewees conveyed an erroneous belief that sheltering was generally a more effective protective action for the public than evacuation.
- During the walk-throughs involving hypothetical accident scenarios, two of the three crews failed to adequately implement PEP-105, "Emergency Control - General Emergency" (Revision 21, dated 10/25/91), in that the initial notification message for the General Emergency declaration did not include the required minimum PAR for that classification, but instead stated "No Recommended Protective Actions." The third crew developed a PAR which was only approximately correct: "Shelter in-place and 5 miles downwind." According to the flow chart in Attachment 5.3 to PEP-105, the minimum PAR consistent with a General Emergency declaration was "Shelter zone A-0 and zones 5 miles downwind."

The licensee agreed to correct the first of the above weaknesses via appropriate emphasis of this point in EP training. The second weakness appeared to have been caused by an overly complex procedure for deriving a PAR. In recognition of this, the licensee had several months earlier initiated a change to the flow chart (Attachment 5.3) for deriving a PAR. This change simplified the process for deriving the initial PAR associated with a General Emergency declaration, and took effect on June 18, 1992 with the issuance of Revision 22 to PEP-105. This revision substantially mitigated the subject weakness, although overall the walk-throughs indicated that ERO personnel were not fully knowledgeable of procedural guidance and requirements for protective action decision-making. During the November 1991 exercise, an exercise weakness was identified for failure to demonstrate the formulation of PARs (see Paragraph 10 of NRC Inspection Report No. 50-261/91-26). The walk-through evaluations during the current inspection indicated that the licensee had not fully corrected this exercise weakness. This matter will be reviewed again during the next NRC-evaluated exercise, scheduled for November 1992.

No violations or deviations were identified.

4. Notifications and Communications (82203)

Pursuant to 10 CFR 50.47(b)(5) and (6), and Section IV.D of Appendix E to 10 CFR Part 50, this area was inspected to determine whether the licensee was maintaining a capability for notifying and communicating with plant personnel, offsite support agencies and authorities, and the population within the 10-mile EPZ.

The inspector reviewed the licensee's notification procedure PEP-171, "Emergency Communicator and Staff". The referenced procedure contained the emergency notification message form, and specified when to notify and activate the onsite emergency organization, corporate support organization, and offsite agencies. The procedure was consistent with the emergency classification scheme used by the licensee. The notification message form in PEP-171 was consistent with the guidance in NUREG-0654, Sections II.E.3 and II.E.4. PEP-171 provided a listing of names and telephone numbers of personnel and organizations who may need to be notified in the event of an emergency condition. Included as an attachment was an emergency roster call-list. Documentation was provided to show that the licensee was updating the plant notification roster on a quarterly basis. Telephone numbers for randomly selected personnel assigned to the on-call schedule were compared with numbers in the local telephone directory; no problems were noted.

Interviews with three Control Room crews (see Paragraph 6 for details regarding the conduct of these interviews) verified that each crew understood the requirements, including time limits, for notifying State and local authorities and the NRC in the event of a declared emergency. During walk-through evaluations, each of the communicators performed satisfactorily and helped facilitate the timely implementation of the applicable PEPs. Interviewees demonstrated sensitivity and responsiveness to the time limitations for notifications of offsite authorities.

The inspector observed an operability test of the following communications equipment located in the TSC/EOF: Selective Signaling System, South Carolina Government Radio, and ROLM phone system. No problems were noted.

The management control program for the Public Warning System (PWS) was reviewed. According to documentation and discussions with a member of the licensee's staff, the system consisted of 45 sirens located within the 10-mile EPZ in the counties of Darlington, Lee, and Chesterfield. According to licensee documentation, siren test results for calendar year 1991 (full cycle, silent, and growl) exceeded 90% operability. The inspector reviewed siren test records for the period October 15, 1991 to May 27, 1992. The

records showed that tests were performed in accordance with procedural requirements and guidance in NUREG-0654. The test program for each siren consisted of a biweekly silent test, a quarterly growl, and an annual full cycle test. Periodic system maintenance was provided by the licensee's substation maintenance group. During the review of test and maintenance documentation, the inspector noted the following:

- On occasion, personnel documenting the results of the periodic PWS test lacked attention to details. For example, a discrepancy in documentation of May 1992 testing was noted between the data sheet (reflecting corrective action date and time of successful retest) and siren test verification sheet (reflecting the date, time, and status of siren).
- Documentation of the annual siren maintenance performed during calendar year 1991 lacked details regarding siren conditions, siren test results, personnel performing test, etc.

The licensee issued Adverse Condition Report (ACR) No. 92-207 to generate and track corrective action for the first of these items. During the exit meeting, licensee management agreed to consider corrective action to address the second item as a possible program improvement.

The installed communications systems in the TSC/EOF were consistent with system descriptions in the Emergency Plan and PEPs. The inspector reviewed licensee records for the period December 12, 1991 to June 11, 1992 and noted that communications tests were conducted at the frequencies specified in NUREG-0654, Section II.N.2.a. However, monthly test documentation (February, May, and June 1992) for the Selective Signaling System lacked specificity regarding the location tested (CR, TSC, or EOF). Consequently, the conduct of required monthly testing at each location could not be verified. In response to this item, the licensee issued ACR No. 92-208 to generate and track corrective action that will ensure the monthly testing of all onsite Selective Signaling System instruments.

As part of the review of emergency communications equipment, the inspector questioned the licensee regarding the maintenance and periodic testing of the plant emergency warning system for high noise areas. The referenced system consists of an evacuation alarm sounded over the plant public address system. When licensee representatives were questioned regarding verification of audibility in various plant areas, the inspector was informed that the current test acceptance criteria did not require staging personnel

at various plant locations to monitor and report audibility. This item was discussed with the licensee for consideration as an improvement item.

The inspector reviewed the status of the licensee's progress with respect to the NRC emergency telecommunications system upgrade (discussed in Generic Letter 91-14, dated September 23, 1991), known as FTS 2000. The inspector was informed that installation of the FTS 2000 lines and instruments was complete, and that the 30-day (minimum) test period prior to full operability of the system had begun on the first day of the current inspection.

No violations or deviations were identified.

5. Shift Staffing and Augmentation (82205)

Pursuant to 10 CFR 50.47(b)(2), Sections IV.A and IV.C of Appendix E to 10 CFR Part 50, and Section 5.3 of the Emergency Plan, this area was inspected to determine whether shift staffing for emergencies was adequate both in numbers and in functional capability, and whether administrative and physical means were available and maintained to augment the emergency organization in a timely manner.

The inspector reviewed Table 5.3.2-1, "Onshift and Additional Staffing for Emergencies." The stated "minimum shift size" for each functional area of emergency response appeared to be consistent with the actual staffing of all shifts, and the listed capabilities for augmenting the shift staff were consistent with NRC guidance found in Table 2 of Supplement 1 to NUREG-0737. The licensee used an "Emergency Response Organization Position On-Call List" which was updated weekly and required designated individuals to be readily available and fit for duty. The primary method for notifying ERO personnel was via radio pager, with telephone as backup. The licensee's methodology for ERO notification employed "blanket" activation of pagers carried by all members of the ERO (not just those persons who were "on-call" at the time of the emergency or drill). This tactic was being used to ensure coverage of all ERO functional positions in lieu of a more advanced approach, such as a computer-driven system which would be capable of accepting telephonic feedback from individuals and which would selectively activate pagers until each ERO position was filled.

The inspector reviewed the licensee's strategy for ensuring compliance with the Emergency Plan requirements addressing the planning standard of 10 CFR 50.47(b)(2), which specifies that "timely augmentation of response capabilities is available." The applicable Emergency Plan requirements were

contained in the aforementioned Table 5.3.2-1, which indicated the ERO positions to be filled within 45 and 75 minutes, respectively. The licensee has been conducting quarterly pager drills in which ERO personnel call to report their availability (no actual reporting to emergency facilities). These drills have generally been conducted on a weekday at 7:00 a.m.--not particularly challenging in terms of testing personnel availability. The most recent was held on Friday, May 8, 1992 starting at 7:00 a.m. The drill data indicated the following projected staffing times:

Technical Support Center (TSC): 35 minutes
 Operational Support Center (OSC): 20 minutes
 Emergency Operations Facility (EOF): 47 minutes

Although some additional time would be needed to achieve facility activation following the arrival of personnel, the above data suggest that the licensee would have been able to meet the previously stated staffing requirements if actual ERO augmentation had been necessary at the time of the drill. The licensee was committed to conduct an augmentation drill requiring travel to the plant at least once every 24 months (Emergency Plan, Section 5.3.2).

No violations or deviations were identified.

6. Knowledge and Performance of Duties (Training) (82206)

Pursuant to 10 CFR 50.47(b)(15) and Section IV.F of Appendix E to 10 CFR Part 50, this area was inspected to determine whether ERO personnel understood their response roles and could perform their assigned functions.

In an effort to gauge the effectiveness of the EP training program, the inspector conducted separate interviews with three (of five) Control Room shift crews, each of which included the following three personnel performing their assigned emergency response functions: Shift Supervisor (served as interim Site Emergency Coordinator), Shift Technical Advisor (performed accident assessment and dose calculations), and Auxiliary Operator (prepared and transmitted offsite notification messages). Each two-hour interview began with technical questions relating to the duties, responsibilities, and functions of the crew during an emergency situation, and then presented a progressive accident scenario that required classification, notification, dose projections, and formulation of PARs. A licensee EP Specialist assisted the inspector in developing and "debugging" a plant-specific scenario. The inspector delineated the guidelines for the interview at the outset, including the "open book" nature of the evaluation. At least one representative of the licensee's EP staff was

present during each of the interviews to allow for confirmation and firsthand understanding of observations. From an overall perspective, each of the three crews demonstrated adequate understanding of their duties and responsibilities in the event of an emergency. However, specific performance weaknesses were observed in the areas of protective action decision-making (details in Paragraph 3) and dose assessment (Paragraph 7). Satisfactory performance by all crews was observed in the areas of event classification (Paragraph 2) and notifications (Paragraph 4).

As a result of numerous significant ERO performance problems identified by the licensee and the NRC during the November 1991 exercise (NRC Inspection Report No. 50-261/91-26), the licensee has implemented an Emergency Preparedness Improvement Program, which includes an extensive upgrading of the EP training program. A discussion of the licensee's progress to date in implementing this upgrade is included in Paragraph 9.

No violations or deviations were identified.

7. Dose Calculation and Assessment (82207)

Pursuant to 10 CFR 50.47(b)(9), this area was inspected to determine whether the licensee maintained adequate methods for assessing the consequences of an actual or potential radiological release.

The licensee's dose assessment methodologies (automated and manual) were described in the following procedures:

- PEP-302, "Dose Projections"
- PEP-301, "Initial Dose Projections"
- OP-924, "Initial Dose Calculations"
- PEP-401, "Radioactive Source Term Determination"

The licensee's automated method of dose assessment was known as HBRDOSE. The automated methodology could be activated via the site Emergency Response Facility Information System (ERFIS). Various parameters (e.g. radiation monitor readings, stack flow rate, meteorological, etc.) were immediately available by menu-driven screens to provide emergency dose calculations and hardcopy reports for transmittal to various onsite and offsite locations. As a backup to the ERFIS terminals, the licensee maintained a 386 computer system (known as "crash cart") for relocating to the dose projection area of the TSC in the event the ERFIS terminals were inoperable. The computer methodology utilized a data input format identical to ERFIS, and was menu-driven in a format similar to ERFIS, with the exception

that plant data must be manually inserted by the operator. Both methods were successfully demonstrated by interviewees assigned to the TSC dose projection staff. The ERFIS methodology was noted by the inspector as "user friendly". The above procedures had provisions for calculating doses from ground and elevated releases (e.g., plant stack, containment, steam generator). The procedures allowed for refinement of dose projections through results from field team surveys. The inspector reviewed documentation which showed that the licensee had performed a very limited comparative study of dose methodologies involving the HBRDOSE and the NRC's RASCAL program. Test cases were limited to ground level releases (no mixed mode or sea breeze). The results according to licensee documentation were within a factor of 3.3 lower than RASCAL. No comparison had been completed between HBRDOSE and the State of South Carolina methodology. Licensee representatives agreed with the inspector regarding the desirability of conducting a comparative study between HBRDOSE, RASCAL, and the State's dose projection program. ACR No. 92-206 was issued to track and generate performance of such a comparison.

The inspector observed dose assessment walk-throughs by two individuals assigned to the TSC organization with responsibility for dose projection during an emergency. Both individuals performed the automated dose calculation. One interviewee performed the personal computer methodology described in PEP-302, and one utilized ERFIS. The inspector discussed with licensee management the observation that the interviewee designated as Dose Projection Team Leader experienced difficulty in setting up the "crash cart" and required assistance. Once the setup was completed, no problems were noted. Both interviewees completed calculations within 15 minutes after the simulated plant and meteorological conditions were provided.

In addition to the individual evaluations discussed above, walk-throughs involving manual dose calculations were conducted with three Control Room crews (see Paragraph 6 for details of the conduct of these walk-throughs). The Shift Technical Advisors (STAs) all had various difficulties performing dose calculations during the walk-throughs, as follows:

- One STA, projecting offsite doses for a steamline monitor alarm resulting from a stuck-open steam generator power-operated relief valve, incorrectly assumed an elevated (rather than ground-level) release. The resultant dose assessment dose calculation was incorrect in the nonconservative direction.

- All three STAs entered projected offsite doses in Section 13 of the emergency notification message in units of rem/hr vs. mrem/hr as specified on the form. If offsite authorities were to use this information without noting the change in units, significant and adverse effects on protective action decision-making could result.
- One STA used an incorrect Dose Correction Factor (DCF) for the thyroid dose projection. Apparently contributing to this error was the STA's initiation of the dose assessment process without listening to the entire scenario presentation of plant conditions.
- There was confusion among the STAs over the meaning and use of the source term release equations pertaining to the radiation monitors R-32A & B - Containment High-Range Monitors in Table 301-2 of PEP-301, "Initial Dose Projections." Procedural clarification would help to ensure use of the appropriate equation.
- Numerous mathematical errors were made, although most were detected by the STAs as they checked their calculations. Some errors were not detected and corrected until a prompt by the interviewer or until a different calculation was performed.
- One emergency notification message was sent without a release magnitude indicated in Section 12, even though a correct dose projection had been made and the results provided in Section 13 of the message. The STA apparently did not understand that the "release magnitude" was the same as the "source term", which had been calculated in the dose assessment just completed.

During the November 1991 exercise, an exercise weakness was identified for failure to demonstrate adequate assessment of radiological releases (see Paragraph 9 of NRC Inspection Report No. 50-261/91-26). The walk-through evaluations during the current inspection indicated that the licensee had not fully corrected this exercise weakness, although it was noted that the licensee was in the process of upgrading the EP training program so as to effect comprehensive corrective actions for this and other identified training weaknesses (see Paragraph 9, below). This matter will be reviewed again during the next NRC-evaluated exercise, scheduled for November 1992.

A licensee organization known as the Dose Assessment Working Group (DAWG), comprised of representatives from each of the licensee's three nuclear plants and the corporate office, conducted a very detailed analysis of dose assessment

methodologies within the licensee's system. The inspector reviewed the DAWG's documented assessment and noted that several areas were identified for review and corrective action.

No violations or deviations were identified.

8. Public Information Program (82209)

Pursuant to 10 CFR 50.47(b)(7), Section IV.D.2 of Appendix E to 10 CFR Part 50, and Section 5.4.4.7.1 of the Emergency Plan, this area was inspected to determine whether basic emergency planning information was disseminated to the public in the 10-mile EPZ on an annual basis.

The licensee had developed an emergency response information brochure for use by members of the public residing in the 10-mile EPZ. The brochure took the form of a calendar which was updated and distributed annually. Licensee documentation indicated that the 1992 brochure had been coordinated with the appropriate State and local authorities. The inspector reviewed the current calendar and verified that it included the information specified by NUREG-0654, Section II.G. In addition to the calendar, the licensee's public information literature included a student safety information brochure, and a Robinson map/brochure. A licensee contact indicated that the calendars were distributed based on listings of the licensee's own electric meter customers and customers of the three local electric cooperatives. A review of the distribution program disclosed that a total of 12,324 brochures were mailed during December 1991. The licensee provided its own new customers with calendars and other emergency information regarding the Robinson Plant upon commencement of their electric service. However, provisions currently did not exist for providing information to new customers served by electric cooperatives subsequent to the annual mailing. The inspector was informed that the licensee's customer listing can be updated as necessary (monthly, quarterly, etc.). However, listings of new cooperative customers currently were only updated annually. Thus, for example, a resident moving to the area in January 1992 and served by one of the cooperatives would not receive the safety information calendar until the next annual mailing in December 1992. The inspector informed the licensee that the current program lacked provisions for distributing information in a timely manner to new electric cooperative customers to ensure residents are aware of the immediate actions to take following siren activation. In response to this issue, the licensee indicated plans to take actions in coordination with the electric cooperatives to provide information to new customers. ACR No. S92-016 was issued by the licensee in

response to this matter so as to generate and track appropriate corrective action.

According to the Emergency Plan, "emergency information will be made available to transient populations through the distribution of safety information calendars to commercial establishments in the 10-mile EPZ". In addition, a member of the licensee's staff indicated that the transient population would be notified of the appropriate actions by posted notices at various boat launching pads, camping facilities, and recreational areas within the 10-mile EPZ. Randomly selected locations were verified by the inspector as displaying the appropriate warning information for transients. Five commercial establishments (hotels, convenience stores, and restaurant) within the 10-mile EPZ were visited by the inspector to determine whether emergency information was available for the transient population. Licensee records indicated that an annual distribution of safety information brochures was made to these establishments; however, no information was available at any of the selected locations, and management personnel at two of those locations were unaware of literature having been supplied or available to the transient population. Notwithstanding the unavailability of material at the aforementioned locations, the employees or managers at these establishments all demonstrated minimally adequate knowledge regarding actions to take in the event of an accident at the Robinson plant. In response to this matter, the licensee issued ACR No. S92-017 and expressed plans to take prompt corrective action by coordinating with the Robinson Information Center staff to distribute additional brochures to each designated commercial location within the 10-mile EPZ.

The public information brochure provided the telephone number of the Robinson Information Center for obtaining additional information regarding the plant. An interview was held with the point of contact at the Information Center to determine the type of information to be provided and the individual's qualification to provide such information; no problems were identified. Also included in the brochure and calendar were telephone numbers for State and local emergency preparedness offices for use by residents desiring more emergency planning information. The inspector placed unannounced calls during off hours to several telephone numbers listed in the brochure to secure answers to hypothetical questions regarding radiation and the public warning system. No problems were noted.

No violations or deviations were identified.

9. Status of the Emergency Preparedness Improvement Program

On December 20, 1991, an Enforcement Conference was held to discuss the licensee's apparent failure to implement and demonstrate (during the November 20, 1991 exercise) adequate corrective actions for previously identified exercise weaknesses regarding emergency classification (the violation was later withdrawn). At that meeting, licensee management presented a "Robinson Emergency Preparedness Assessment", which soon after became the basis for the Emergency Preparedness Improvement Program. The EPIP was developed to identify and implement corrective actions in five broad performance areas:

- emergency preparedness organization
- training requirements and procedural support
- scenario development and drill control
- emergency action level classification
- management of the emergency preparedness process

The current inspection included a review of the status of EPIP implementation.

In January 1992, an EP Manager was appointed to functionally operate at the same level as the Plant General Manager (i.e., reports directly to the Vice President, Robinson Nuclear Project). Although this organizational arrangement was not yet official or permanent, it appeared to have given the Robinson EP program a much higher level of "visibility" to plant personnel. The EP Manager's staff consisted of two technical specialists and one clerk. Staffing of the ERO was given greater "depth" through the addition of personnel such that most ERO positions had four designees. A new emphasis on management "ownership" of the various functional areas of the EP program included specific assignment of each PEP to a cognizant manager, who has the prerogative to recommend and/or approve any procedural changes that he/she may deem necessary.

The EPIP was ultimately expected to have a major impact on the licensee's EP training program. However, upgrades in this area were still in the early stages of development. An experienced EP training consultant was recently hired and was expected to be working full-time at the site until the end of 1992. His assignment was, for each of the various ERO positions, to identify job criteria and training needs, rewrite lesson plans such that they are job-specific (instead of generic to all TSC personnel, for example), and develop job performance measures (JPMs) to be used for initial position qualification and subsequent job performance evaluation. These tasks were to be completed by December 31, 1992, and the resultant new training program was to be implemented in January 1993. A new computer-based system for tracking required annual EP training had just

been implemented at the time of this inspection. This would more readily allow managers and individuals to take ownership of the responsibility for ensuring that their ERO qualifications remained current.

In February 1992, the licensee began a series of monthly drills that was planned to continue through November (expected to be bimonthly beginning January 1993). These included combined functional drills as well as limited table-top drills. The licensee's program achieved a milestone when the first drill actively driven by the Control Room simulator was conducted on June 19. With ERFIS terminals switched to the "simulator mode", plant data could be conveyed to drill participants in a realistic manner (i.e., controllers did not need to hand out message sheets to players). The inspectors observed this drill and conveyed comments of minor significance to the EP Manager at the conclusion. A drill critique was conducted but not attended by the inspectors.

The licensee had recently met with representatives of the South Carolina Emergency Preparedness Division in an effort to enhance the operation of the EOF. One notable improvement observed by the inspector during the June 19 drill was the use of new status charts in the EOF designed to focus efforts on offsite activities instead of plant assessment, which is the function of the TSC.

The inspector concluded from review of the licensee's progress in this area that the EPIP has thus far produced a higher level of management attention and an increase in the staff dedicated to the EP program, as well as progress toward major enhancements in the EP training program. Future inspections will continue to monitor the licensee's efforts to improve the emergency response capability at the Robinson Plant.

10. Action on Previous NRC Inspection Findings

(Closed) Inspector Follow-up Item 50-261/91-26-05:
Evaluation of the resources available to media personnel in the media work area of the Joint Information Center (JIC) as well as the potential impact of the media work area location on the conduct of press briefings.

The licensee addressed this item by moving the radio and television monitors to a separate area of the JIC and by increasing the number of telephones in the media work area to 10 (formerly 5). Six-foot-high partitions were placed around both areas to minimize acoustic interference with press briefings. (This information was obtained from a discussion with a licensee representative and review of a

facility drawing, a purchase order, and a service request rather than actual inspection of the JIC facility in Florence, SC.)

11. Exit Interview

The inspection scope and results were summarized on June 18, 1992 with those persons indicated in Paragraph 1. The team leader described the areas inspected and discussed in detail the inspection results. Emphasis was placed upon the ERO performance weaknesses which persisted relative to (a) the understanding and execution of the process for deriving a protective action recommendation (Paragraph 3), and (b) the calculation and assessment of projected offsite doses (Paragraph 7). The team leader also delineated the following discrepancies, all of which the licensee committed to track and appropriately address under the ACR system: (c) documentation of monthly communications tests with State and local authorities unclear regarding which Selective Signaling System locations were tested (Paragraph 4); (d) substantive inconsistencies in the documentation of surveillance testing of the offsite siren system (Paragraph 4); (e) lack of documented comparisons by the licensee between its dose assessment methodology and those of the NRC and the State (Paragraph 7); (f) lack of provision for promptly providing safety information brochures to new customers served by the electric cooperatives in the 10-mile EPZ (Paragraph 8); and (g) absence of safety information booklets for transients at all five of the offsite establishments surveyed (Paragraph 8). The Plant General Manager expressed reservations regarding the feasibility of satisfactorily resolving item (g) because of the difficulty of maintaining control over this offsite activity; no other dissenting comments were received from the licensee. Although proprietary information was reviewed during this inspection, none is contained in this report.