

SAFETY EVALUATION BY THE EMERGENCY PREPAREDNESS
AND RADIATION PROTECTION BRANCH
RELATED TO FACILITY OPERATING LICENSE NO. DPR-23
CAROLINA POWER & LIGHT COMPANY
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261

1.0 INTRODUCTION

In a letter dated February 24, 1995, as supplemented by letter dated May 24, 1995, CP&L proposed to revise the HBRSEP Emergency Plan by relocating the Technical Support Center (TSC) outside the protected area. This revision will be an exception to the Technical Support Center (TSC) location guidance in Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements, Requirements for Emergency Response Capability." Specifically, the proposed revision would eliminate the current Emergency Plan commitment to incorporate the TSC, upon activation, into the protected area.

2.0 EVALUATION

The HBRSEP currently indicates the TSC is to be incorporated within the site protected area, upon activation. Prior to activation of the TSC, the security force members must realign the protected area boundary to encompass that portion of the Training Building that currently houses the TSC facilities. The realignment normally involves a search of all areas of the TSC and compensatory measures added to enhance intrusion detection. Currently, upon declaration of an emergency, the time needed to activate the TSC is approximately 50 to 60 minutes. With the proposed revision, the time required to activate the TSC is reduced to approximately 35 to 45 minutes. This reduction in activation time, 15 minutes, is a result of the security force not having to search and secure the TSC since it will not be in the protected area.

The licensee has provided methods to make available specific data and information from the control room which would limit the need to send TSC personnel to the control room. Data is available from the Emergency Response Facility Information System/Electronic Display System (ERFIS/EDS) and the Safety Parameter Display System (SPDS), a subset of ERFIS. The Emergency Response Organization (ERO) communicator transmits selected ERFIS data points from the control room indicators to the TSC in the event of ERFIS failure. Information may be transferred from the TSC by existing communication systems, which include the site telephone system, radio system, and the site-wide Local Area Network computer system. A dedicated Hot Line telephone is provided from the Shift Supervisor's desk in the control room to the Plant Operations Director in the TSC. As a means to verify that the information available in the TSC provides accurate plant status, a camera that is remotely controlled from the EOF can be used by EOF and control room personnel to view data available to personnel and briefings held in the TSC.

Under the proposed revision, personnel in the TSC travelling to the control room must ingress to, and egress from, the protected area through the secured gate in the protected area boundary fence which increases the transit time. The increased transit time, 3.5 minutes, from the TSC to the control room exceeds the guidance in NUREG-0696, Section 2.2, that states, "The walking time from the TSC to the control room shall not exceed 2 minutes." However, the difference in the transit time, 1.5 minutes, is offset by the reduction in the time to activate the TSC and the enhanced communications capabilities available between the TSC and the Control Room. Two additional routes have also been established and their estimated time of transit are 5.0 minutes and 7.5 minutes.

Protective measures taken to limit the radiation dose received by personnel travelling between the TSC and the control room under severe accident conditions are currently established. Both the control room and the TSC are stocked with emergency kits which include anticontamination clothing, respirators and dosimetry. This equipment, as well as consideration of the optimum travel route between the facilities, will serve to minimize radiation dose received by personnel travelling between the TSC and the control room under emergency conditions that involve releases of radioactive materials. Non-design verified dose estimates were performed for the longest and shortest access routes, 7.5 and 3.5 minutes, respectively. The estimated total effective dose equivalent incurred for transit along the longest route between the TSC to the control room is 8.0 mrem versus 3.0 mrem for the currently available route. Although the estimated dose incurred for the new route is greater than the dose received for the current route, neither dose is considered significant in this context.

3.0 CONCLUSION

The staff has evaluated CP&L's proposed revision to the HBRSEP Emergency Plan. Based on a review of the licensee's submittal and on the basis that the revision does not decrease the effectiveness of the Plan, the staff recommends that the licensee's proposed revision to eliminate the commitment to incorporation of the TSC into the protected area be approved.

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