

# PRIORITY 1

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SUBJECT: Provides response to RAI re request for exception to  
 location of Technical Support Ctr in protected area  
 submitted 950224.

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**Carolina Power & Light Company**

Robinson Nuclear Plant  
3581 West Entrance Road  
Hartsville SC 29550

Robinson File No.: 11720

Serial: RNP-RA/95-0096

**MAY 24 1995**

United States Nuclear Regulatory Commission  
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING  
REQUEST FOR EXCEPTION TO LOCATION OF THE TECHNICAL SUPPORT  
CENTER IN THE PROTECTED AREA SUBMITTED FEBRUARY 24, 1995

Gentlemen:

By letter dated February 24, 1995, Carolina Power & Light (CP&L) Company requested an exception to the guidance in Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements, Requirements for Emergency Response Capability," regarding location of the Technical Support Center (TSC) in the protected area. The exception would eliminate the current commitment in the Emergency Plan to incorporate the TSC, upon activation, in the protected area of the H. B. Robinson Steam Electric Plant, Unit No. 2. By letter dated April 17, 1995, the NRC requested certain additional information to be provided with thirty days of receipt of the letter (i.e., by May 24, 1995). The information requested was discussed in a conference call between CP&L and NRC on May 11, 1995. Our response to the request is provided in the enclosure to this letter.

Questions regarding this matter may be referred to Mr. A. L. Garrou at (803) 857-1544.

Very truly yours,

R. M. Krich  
Manager - Regulatory Affairs

Enclosure

c: Mr. S. D. Ebnetter, Regional Administrator, USNRC, Region II  
Ms. B. L. Mozafari, USNRC Project Manager, HBRSEP  
Mr. W. T. Orders, USNRC Senior Resident Inspector, HBRSEP

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ENCLOSURE  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING  
REQUEST FOR EXCEPTION TO LOCATION OF THE TECHNICAL SUPPORT  
CENTER IN THE PROTECTED AREA SUBMITTED FEBRUARY 24, 1995

Request 1

"Describe the route(s) of travel and associated time(s) of transit between the Technical Support Center (TSC) and the control room."

Response

There are 3 potential routes for travel from the control room to the TSC if the TSC is not incorporated into the protected area.

- 1) The current route would be maintained from the control room through, or around, the Turbine Building, behind Building 320 and into the TSC. This accounts for the ability of personnel travelling between the control room and the TSC to pass through the gate in the Protected Area boundary fence during emergency conditions. The travel time for this route is approximately 3.5 minutes.
- 2) A route would be available from the control room exiting the protected area through the East Personnel Access Portal (PAP), along the protected area fence past the General Employee Training Building, and in the east door of the Emergency Operations Facility (EOF)/TSC Training Building. The travel time for this route is approximately 5.0 minutes.
- 3) An additional route would be available from the control room through the Turbine Building, exiting the protected area through the West PAP, along the Administration Building and in the west door of the EOF/TSC Training Building. The travel time for this route is approximately 7.5 minutes.

These routes are shown on Attachment 1.

Request 2

"Provide a comparison of the time taken to activate the TSC for all emergency classification levels based on the existing Emergency Plan and the proposed Plan."

Response

Typically it has taken up to 45 minutes to search and incorporate the TSC into the protected area regardless of the emergency classification level. Accounting for this duration, the total activation time for the TSC averages approximately 50 to 60 minutes. Without the search required for incorporation of the TSC into the protected area, we estimate that activation times would be reduced to approximately 35 to 45 minutes.

Request 3

"Provide those procedures the physical security program will be implementing to expedite the ingress and egress from the protected area by TSC personnel during emergencies."

Response

Current access control procedures will be used for ingress to, and egress from, the protected area during emergencies. Security Procedure (SP) - 007, "Access Control and Personnel Identification," SP-014, "Emergency Plan Support," and SP-018, "Safeguards Contingency Events," address access control and security aspects during emergency conditions. The existing multiple ingress and egress processing lanes that accommodate large numbers of personnel in a short period of time during normal shift change demonstrate that ingress and egress during emergency conditions can also be accomplished without delays. In addition, an exemption from provisions of 10 CFR 73.55(d)(5) has been approved by NRC letter dated December 20, 1994, that will allow the implementation of a hand geometry system for access control. Implementation of the hand geometry system, planned for mid-1995, will also improve protected area ingress and egress times.

Request 4

"Describe any protective measures you will take to limit the radiation dose received by personnel traveling between the TSC and the control room under severe accident conditions. In addition, provide an estimate of the dose that would be received by these personnel in transit during such accident conditions."

Response

Both the control room and TSC are stocked with emergency kits which include anti-contamination 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 radioactive releases within the plant as well as to the environment. Under worst case radioactive material release conditions, the maximum estimated radiation dose which would be received by an individual travelling between the TSC and control room using the longest proposed route described in the response to Request 1, above, is only marginally increased compared to the dose received by an individual travelling between the TSC and the control room using the current route.

Existing Security Procedures allow expediting access to the protected area during emergencies. Exemption from search requirements and access through normally secured locations may be invoked when an emergency condition involving the release of radioactive material is imminent or in progress.

Non-design verified dose estimates were performed for the longest and shortest access routes described in our response to Request 1, above. The estimates were obtained using assumptions from the Updated Final Safety Analysis Report and the dose projection program used in the Emergency Response Facilities for performing accident dose projections. The dose estimates utilize assumptions for the design basis analysis described in UFSAR Section 15.6.5.5.3. The estimated dose incurred for transit along the longest route between the TSC to the control room is 8.14 mrem Total Effective Dose Equivalent (TEDE) versus 3.8 mrem TEDE for the currently available route. Doses were calculated based on the dose rate at the mid-point of the trip to provide an average of total dose received.

As discussed in our response to Request 1, there are three possible routes between the TSC to the control room if the TSC is not incorporated into the protected area. This will allow the choice of the route that will result in the lowest dose to the individual(s) in transit.

#### Request 5

"Explain the availability of specific data and information from the control room which would demonstrate the limited need to send TSC personnel to the control room for this purpose."

#### Response

Data is available from the Emergency Response Facility Information System (ERFIS)/Electronic Display System (EDS). The ERFIS/EDS system has redundant processors and power supplies and is described in CP&L's submittal dated December 31, 1984 in response to Supplement 1 to NUREG - 0737, "Requirements for Emergency Response Capability (Generic Letter No. 82-33)." A discussion of the functioning of the Safety Parameter Display System (SPDS), a subset of ERFIS, is also included in the December 31, 1984, submittal. A wide range of information is available as discussed under Tab C of the December 31, 1984, submittal, as amended by our letters dated July 18, 1985, July 28, 1986, May 1, 1987, and October 9, 1987, describing our conformance to the guidance of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident." The NRC approved our actions in regard to Regulatory Guide 1.97 portion of our response by letter dated March 5, 1987, and the actions in regard to the SPDS portion of our response by letter dated April 23, 1990. Calculated values, process variables, and selected valve positions are among the hundreds of data points which can be viewed from a system terminal.

#### Request 6

"Describe any procedures planned for incorporating the TSC within the protected area for such circumstances as loss of communications, data display, terrorist attack, etc."

Response

Existing procedures are adequate for such circumstances as loss of communications, loss of data display, terrorist attack, or other contingencies without incorporating the TSC within the protected area. For example, loss of a communications system is considered in existing plans by the designed defense in depth of communications systems. Loss of data display is compensated by the redundant capability of the ERFIS computer system, or by obtaining data manually via individuals serving as data communicators. The Security Program incorporates contingencies for responding to potential terrorist attacks. With the exception of the physical search before incorporation of the TSC into the protected area, the effectiveness of security measures available to protect the TSC against terrorist attack would remain the same regardless of whether the TSC is incorporated into the protected area.

Request 7

"Outline the other measures (e.g., face-to-face communication using closed circuit TV) that will be used to provide personnel in the TSC with information needed to perform the TSC functions."

Response

- 1) A dedicated Hot Line telephone is provided from the Shift Supervisors' desk in the control room to the Plant Operations Director in the TSC.
- 2) There is an Emergency Response Organization (ERO) communicator position whose function is to transmit selected ERFIS data points from the control room indicators to the TSC in the event of ERFIS failure.
- 3) Fax machines are provided in the control room and TSC in addition to the fax capability provided as part of the ERFIS/EDS system.
- 4) Information may be transferred from the control room to the TSC by all existing communication systems, which include the site telephone system, radio system, and the site-wide Local Area Network computer system.
- 5) The EDS has an electronic log capability. Any ERO personnel may browse through other ERO positions' logs in a "read only" mode.
- 7) 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.

Enclosure to Serial: RNP-RA/95-0096

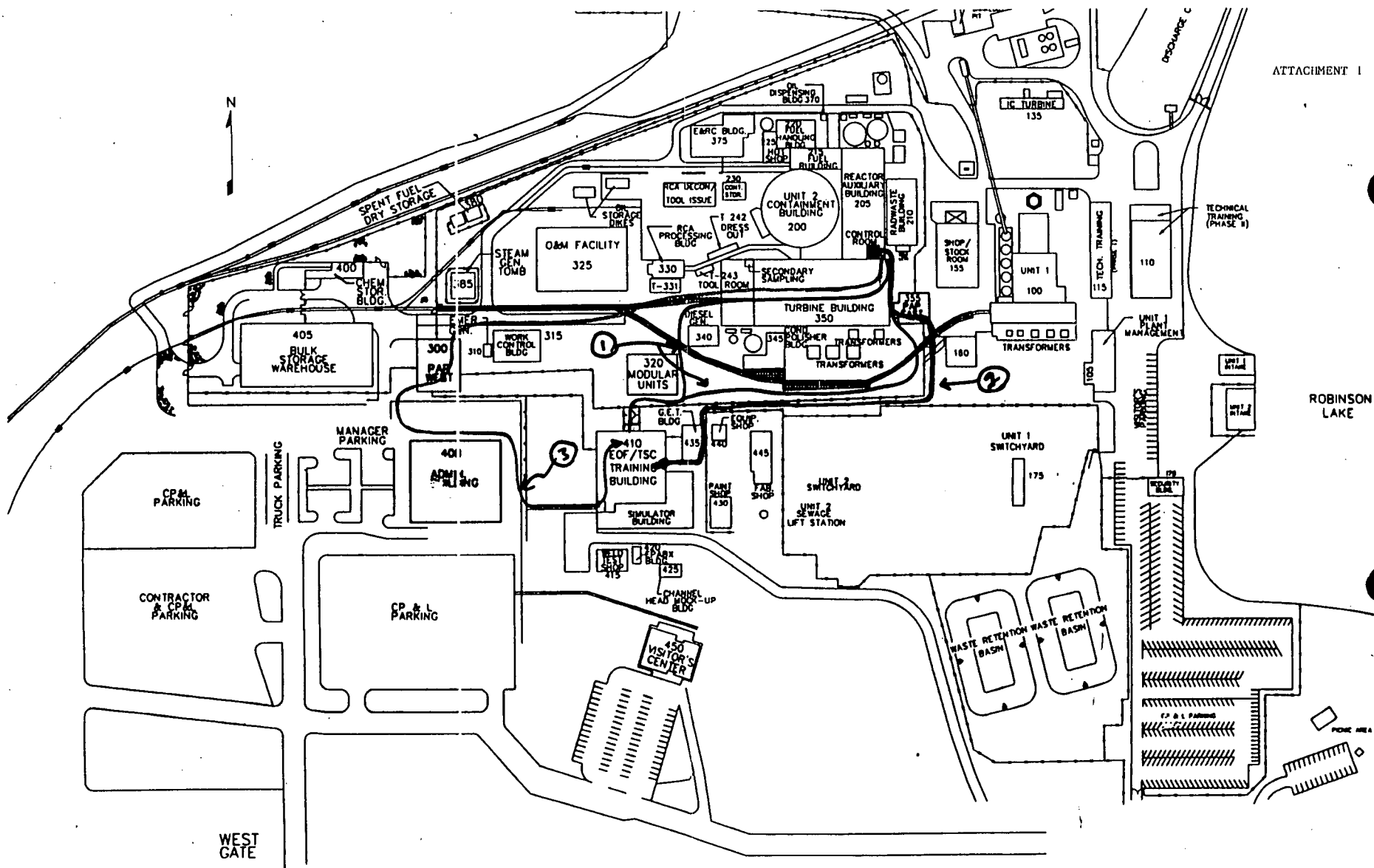
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Request 8

"Provide a copy of Section 3.2.15 of the H. B. Robinson Steam Electric Plant Industrial Security Plan."

Response

The Industrial Security Plan has been submitted to the NRC by letter dated May 23, 1977; the latest revision was submitted in accordance with 10 CFR 50.4(b)(4) on May 4, 1995.



H. B. ROBINSON PLANT