DISTRIBUTION
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JAN 18 1983

Docket No. 50-261

Mr. E. E. Utley, Executive Vice President
Power Supply and Engineering & Construction
Carolina Power and Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Utley:

SUBJECT: ADEQUACY OF STATION ELECTRICAL DISTRIBUTION SYSTEM VOLTAGES - H. B. ROBINSON UNIT 2

We have completed our review of your submittals dated October 17, 1980 and October 14, 1982, concerning the adequacy of station electrical electrical distribution system voltages at the H. B. Robinson, Unit 2 plant. Based on our review we conclude that additional information is required to complete our review. The additional information required is contained in the enclosure.

The enclosed information request was discussed in detail with your staff during a telephone communication on January 12, 1983. Therefore, the results of this discussion may be factored in to your response to the enclosure. Please respond to the enclosed additional information request within 45 days of your receipt of this letter.

Sincerely,

Original signed by:
S. A. Varga

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

OFFICE	ORB#1:DL	ORB#1:DL					
SURNAME	GRequa:dm	SVarga					
DATE	01/18/83	01/18/83					

Mr. E. E. Utley
Carolina Power and Light Company

cc: G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

U. S. Nuclear Regulatory Commission
Resident Inspector's Office
H. B. Robinson Steam Electric Plant
Route 5, Box 266-1A
Hartsville, South Carolina 29550

Alan S. Rosenthal, Chairman
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Richard S. Salzman
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. W. Reed Johnson
Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

James P. O'Reilly
Regional Administrator - Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street
Atlanta, Georgia 30303

ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION

H. B. ROBINSON, UNIT 2

ADEQUACY OF STATION ELECTRIC DISTRIBUTION SYSTEM VOLTAGES

Ref. 1: CP&L letter (L. W. Eury) to NRC (S. A. Varga), dated October 14, 1982.

Ref. 2: CP&L letter (E. E. Utley) to NRC (S. A. Varga), dated October 17, 1980.

(1) Clarify the discrepancy in the electrical diagrams of 8.1.2-1, 8.3.1-1, 8.3.1-3 and 8.3.1-4 in the plant's updated FSAR with respect to the feeder (from transformer 2C) and breaker locations for the dedicated shutdown bus, emergency bus No. 2 and 480-volt bus No. 3. Also, submit the voltage and time delay setpoints (with tolerance) for the under-voltage protection schemes associated with the dedicated shutdown bus.

(2) Submit in detail the basis and plant procedures for maintaining a voltage schedule of .97 pu to 1.01 pu on the 115 kv system [Ref. 1, p. I-1].

(3) Is the tripping of the steam generator feed pumps A and B [Ref. 1, p. I-5] during an SI, automatic or manual? Submit any time delays and procedures associated with the tripping.

(4) Submit the voltage and time delay setpoints (with tolerance) for the degraded voltage protection schemes and address the possibility of spurious actuations caused by the time duration of the voltage transients in each of the cases analyzed [Ref. 1]. Also, submit the time duration of the voltage transient caused by the starting of the selected load.

(5) Submit the basis for assuming the X/R values defined for the transformers listed in page I-4 of Ref. 1.

(6) Verify that the time duration of the voltage transients analyzed were not of sufficient magnitude to cause fuses to blow in the 208 volt MCC starter analysis of Ref, 1, page II-76.

(7) Submit in detail the design for the automatic bypassing/reinstatement of the degraded voltage relays when starting the 6000 hp reactor coolant pump addressed in Ref. 2.

(8) Are there any overvoltage alarms used to maintain the 1.01 pu limit in the voltage schedule and if so, what are the setpoints to alarm for corrective actions.

(9) Re-submit the voltage analyses incorporating the conservatisms defined (such as the load shedding of loads after initiation of a LOCA, the proposed 4160/480-volt transformer tap changes, the use of actual load values rather than Bhp, the test verification results, etc.) for those cases where the operating voltage was marginal to the Class 1E equipment's design limits and undervoltage relay trip setpoints [Ref. 1].

(10) As stated in the updated FSAR, the loss of the single startup transformer No. 2 would result in putting into service a spare BUT (minimum of 24 hours to connect) or by backfeeding through the main transformer and UAT from the 230 kv switchyard (minimum of 4 hours to enable). If backfeeding is to be used as an offsite source supply until restoration of power from the BUT is accomplished, then an analysis is required to demonstrate that the distribution system can supply adequate voltage to the Class 1E equipment under the worst case condition for the configuration.

(11) Are there any single events of conditions which could cause the simultaneous or consequential loss of the offsite circuit through the startup transformer No. 2 and prohibit the backfeeding through the main and unit auxiliary transformers? If so, submit any remedial actions.