



Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT  
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MAY 2 " 1985

Robinson File No: 13510E

Serial: RNP/85-907

Dr. J. Nelson Grace, Regional Administrator  
United States Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N. W., Suite 3100  
Atlanta, Georgia 30323

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23  
REGION II INSPECTION REPORT 85-08, REV. 1

Dear Dr. Grace:

Carolina Power and Light Company (CP&L) received and reviewed the subject report and provided its response on April 3, 1985. Following a conference call with members of your staff on April 19, 1985, CP&L committed to provide a supplement to that response. This letter provides that supplement and supersedes in its entirety our letter dated April 3, 1985, Serial: RNP/85-636. Revisions to our original response are denoted by bars in the right hand margin.

Severity Level IV Violation R11-85-08-01-SL4

Technical Specification 6.5.1.1.1.c and 10 CFR 50 Appendix B, Criterion V collectively require that written procedures shall be established, implemented, and maintained for surveillance and test activities of safety-related equipment. These procedures shall include appropriate quantitative acceptance criteria for determining that the activities specified by these procedures are accomplished satisfactorily.

Contrary to the above, presently established Licensee procedures and available vendor technical manuals do not provide quantitative acceptance criteria which specify an acceptable normal operating temperature range that shall be maintained to assure operability of the safety-related station batteries. Maintenance Surveillance Test Procedure MST-902, titled "Battery Test-Daily," Revision 2, established to maintain the operability of the station batteries as required by Technical Specification Sections 4.6.3.1 and 4.6.3.3, did not

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specify a normal operating temperature range that shall be maintained such that required load capacity is assured. On January 22, 1985, it was observed that the "A" battery temperature was 55°F, and the "B" battery was 48°F. These temperatures are below the vendor recommended range of 60 to 90°F (the optimum temperature range is stated to be between 75 and 77°F).

Response

1. Admission or Denial of the Alleged Violation

CP&L denies the alleged violation.

2. Reason for Denial

CP&L contends that not including a normal operating temperature range quantitative acceptance criteria in Maintenance Surveillance Test MST-902 is not in violation of Technical Specification (TS) 4.6.3.1, 4.6.3.3, and 6.5.1.1.1.c, nor 10CFR50, Appendix B, Criterion V.

TS 6.5.1.1.1.c requires that written procedures be established, implemented, and maintained covering surveillance activities. In accordance with TS 6.5.1.1.1.c, MST-902 was implemented to satisfy the surveillance requirements of TS 4.6.3.1 and TS 4.6.3.3.

TS 4.6.3.1 requires that the voltage and temperature of a pilot cell in each battery be measured and recorded daily, 5 days per week. These parameters are measured and recorded by MST-902 5 days per week.

TS 4.6.3.3 requires that the data recorded be compared with the previous data to detect signs of abuse or deterioration. This comparison is also accomplished by MST-902.

10CFR50 Appendix B, Criterion V, states that procedures shall contain appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. MST-902 contains quantitative limits for pilot cell voltage and corrected specific gravity as well as qualitative acceptance criteria to identify signs of deterioration. These acceptance criteria are appropriate for determining satisfactory compliance with the intent of Technical Specification 4.6 as specified in its Basis. This Basis states, "station batteries will deteriorate with time, but precipitous failure is extremely unlikely. The surveillance specified is that which has been demonstrated over the years to provide an indication of a cell becoming unserviceable long before it fails." The Basis explains the intent of the individual surveillance items as being an indicator of long term battery degradation. To better meet the intent of TS 4.6.3.1 and 4.6.3.3, MST-902 also requires the measuring, recording, and comparison of several additional parameters not specifically required by Technical Specifications. These additional parameters are electrolyte level, specific gravity, and the specific gravity corrected for level and temperature variations. The corrected specific gravity provides a more reliable indicator of battery performance.

All of the data recorded in MST-902 receives two management reviews following its completion. Both the I&C Foreman and the Maintenance Supervisor closely review the recorded parameters to identify when corrective action is necessary. The additional recorded parameters provide a broader perspective on battery deterioration to management during their review of the completed surveillance procedure.

To address 10CFR50, Appendix B, Criterion V, specifically, the referenced regulation requires that, "instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished." These requirements are met through the design of MST.

In particular, the MST requires that a temperature correction for specific gravity be made. The MST states that the acceptance criteria is that, "The Unit No. 2 station batteries pilot cell voltage and corrected specific gravity are within limits." At a temperature below 51°F, a temperature correction is not provided, and the acceptance criteria cannot be satisfied. Therefore, corrective action would be initiated by notification of appropriate supervision, i.e., the Shift Foreman, specifically, and Maintenance management.

In this particular case (January 22, 1985), the abnormal temperature reading triggered the expected managerial review and resulted in CP&L contacting the vendor who verified that the batteries were in an acceptable operating range. CP&L reviewed MST data from the winter months for the previous six years, and the lowest previous battery temperature identified was 51°F. It was also determined that the coldest recorded temperature in the last ten years on-site was reached on January 21, 1985. Finally, the battery vendor has provided additional data to show that considerable margin was available at the time and is available from a temperature standpoint prior to the battery performance being affected. Specifically, the vendor confirmed that acceptable battery performance would be maintained down to 38°F electrolyte temperature. These reviews all confirmed that the MST contained adequate acceptance criteria to trigger corrective action prior to the batteries reaching an unacceptable condition.

Carolina Power and Light Company believes that the acceptance criteria contained in MST-902 is appropriate to meet the requirements of both the Technical Specifications and 10CFR50 Appendix B, Criterion V, and CP&L respectfully requests that this violation be withdrawn.

3. MST-902, Improvements Made

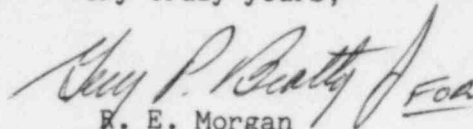
In view of the level of concern regarding battery temperatures that may reduce battery performance, an additional administrative control of 50°F minimum temperature was added to MST-902 effective February 4, 1985.

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This value provides a margin above the minimum temperature of 38°F stated by the manufacturer. A review of a sample of past battery surveillances performed during winter months has revealed no battery temperatures below 50°F prior to the unusually cold weather of January 1985. Therefore, no battery problems due to temperature are anticipated.

If you have any questions concerning this response, please contact Mr. David C. Stadler at (803) 383-4524 Extension 363.

Very truly yours,

A handwritten signature in cursive script, appearing to read "R. E. Morgan".

R. E. Morgan  
General Manager  
H. B. Robinson S. E. Plant

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cc: Document Control Desk  
H. E. P. Krug