

CP&L  
Carolina Power & Light Company

H. B. ROBINSON STEAM ELECTRIC PLANT  
POST OFFICE BOX 790  
HARTSVILLE, SOUTH CAROLINA 29550

DEC 1 1983

Robinson File No: 13510E

Serial: RSEP/83-1410

Mr. James P. O'Reilly  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23  
Response to NRC Inspection Report IE-83-26

Dear Mr. O'Reilly:

Carolina Power and Light Company has received and reviewed the subject report and provides the following response.

A. Severity Level IV Violation (IE-83-26-04-SL4)

Technical Specification 6.5.1.1.1.a requires that written procedures be implemented that meet the requirements of Appendix A of USNRC Regulatory Guide 1.33, Revision 2. Regulatory Guide 1.33 requires procedures for access control to radiation areas including a radiation work permit system. Licensee Health Physics Procedure-006, Revision 0 establishes these procedures and radiation work permit (RWP) requirements.

Contrary to the above, as of September 10, 1983, this procedure had not been implemented in that 1) a mechanic performed work on RWP 1470 Revision 1 in a high radiation and high contamination area without required health physics coverage or respiratory protection and 2) a health physics technician responsible for work on RWP 1470 Revision 1 did not provide the required continuous coverage. This resulted in ingestion of radioactive material by the mechanic to levels approaching 16 MPC-hours.

Response

1. Admission or Denial of Alleged Violation

Carolina Power and Light acknowledges the alleged violation.

2. Reason for Admission

The individual was involved in the removal of the pressurizer spray valve, RC-455B, to the operating deck of containment. During the morning of the incident, health physics (HP) personnel determined the need for additional dosimetry and respiratory protection. In response the radiation work permit for the work (RWP 1470 Revision 0) was revised (Revision 1) to require additional dosimetry, continuous health physics coverage, and respiratory protection for cleaning of the valve. This RWP was made available prior to the individual re-entering his work area in containment that afternoon. The individual later indicated he had not read Revision 1 to the RWP before signing the RWP Log and entering containment. The individual mistakenly thought that it was the HP technician's responsibility to inform him of any changes in the RWP.

Additionally, contrary to the RWP, there was no continuous HP coverage during the cleaning and filing operation. The HP technician was not aware that the operation was in progress until he found the individual cleaning and filing on the valve. The HP technician had previously provided coverage while the individual inspected the valve, but later left the area without halting work or emphasizing work must not continue in his absence. Upon discovery of the cleaning operation, the HP technician immediately halted all work. Upon exiting the containment it was determined that the individual was internally contaminated.

3. Corrective Action Taken and Results Achieved

The individual was excluded from the Radiation Control Area until resolution of the contamination incident. A bioassay program was initiated to determine the extent of internal contamination. The bioassay and whole body count program concluded the individuals intake equaled to approximately 16 MPC hours.

4. Corrective Action That Will be Taken to Prevent Further Violation

The individual has been formally reprimanded. Additional training of HP and maintenance personnel on the purpose of RWPs and of compliance to them will be conducted prior to the next refueling outage. Lessons learned will be added to the general employee radiation control training.

6. Date When Full Compliance Will be Achieved

Corrective actions will be completed by February 29, 1984.

B. Severity Level IV Violation (IER-83-26-01-SL4)

Technical Specification 4.2.5.2 requires that all steam generator tubes that are determined to have degradation exceeding the plugging limit, as defined in Technical Specification 4.2.5.1.5, shall be plugged prior to return to power.

Contrary to the above, as of September 5, 1983, two tubes in 'A' Steam Generator had not been plugged despite May 1983 eddy current data indicating that both tubes exhibited essentially through-wall indications. This resulted in a required plant shutdown due to primary-to-secondary leakage.

Response

1. Admission or Denial of the Alleged Violation

Carolina Power and Light Company acknowledges the alleged violation.

2. Reason for the Violation

On September 5, 1983, with the unit at 79% power, a primary-to-secondary leak, which had been monitored since June, 1983 in "A" Steam Generator increased to approximately .32 GPM. The Plant was shutdown for inspection and repair of "A" Steam Generator.

Upon inspection of "A" Steam Generator, two tubes, Row 14, Column 19, (Hot Leg) and Row 28, Column 57 (Cold Leg) were determined to be leaking. Eddy Current examination of these tubes revealed approximately 100% indications at 18 inches and 23 inches above the tubesheet respectively. A review of the Eddy Current Testing (ECT) tapes from the May, 1983 Steam Generator Inspection determined that both tubes exhibited near through-wall indications and should have been plugged. Based on this information, it was concluded that these two tubes proceeded to through-wall as would be predicted by previous corrosion rate calculations.

3. Corrective Steps Taken and Results Achieved

The two leaking tubes were mechanically plugged and hydrotested satisfactorily on September 11, 1983.

Additionally, on September 11, 1983, a re-examination of 10% of the ECT tapes from the May, 1983 inspection of "A" Steam Generator was completed and no additional missed pluggable indications were discovered.

In October, 1983, a review of all the ECT tapes from the May, 1983 Outage was begun. On November 2, 1983, during the course of this complete re-review a tube was identified with a potential 92% defect. Continued operations based on this indication could not be justified, therefore, a plant shutdown was begun for corrective action. It was decided that a full scope eddy current inspection would be performed to determine the condition of the Steam Generators.

The investigation as to the root cause of why the two tubes were missed has not been completed. Some steps were taken during the November Steam Generator inspection to reduce the likelihood for missing tubes. The effectiveness of these steps is continuing to be reviewed. Upon completion of our investigation a supplemental response to this violation

will be provided with the corrective actions to prevent further violations.

5. Date When Full Compliance Will be Achieved

A supplemental response will be provided by January 31, 1984.

C. Severity Level V Violation (IER-83-26-05-SL5)

Technical Specification 6.5.1.1.1.a requires that written procedures be established that meet the requirements of Appendix A of USNRC Regulatory Guide 1.33, Revision 2. Regulatory guide 1.33 requires procedures for operation and calibration of nuclear instruments and the reactor protection system.

Contrary to the above, as of September 15, 1983, procedures had not been established to control the data acquisition and evaluation and require the formal review and approval of subsequently developed setpoints for calibration of the intermediate range nuclear instrument reactor trip setpoints and rod stop setpoints.

Response

1. Admission or Denial of the Alleged Violation

Carolina Power and Light Company acknowledges the alleged violation.

2. Reason for the Violation

During a June 23, 1983 shutdown, an intermediate range high flux trip signal initiated at 16% instead of 25% (Plant did not trip because trip was defeated). On July 29, 1983, Nuclear Instrumentation data was taken to reset these intermediate range trip setpoints. The intermediate range trip setpoints were not reset prior to the September 5, 1983 shutdown. During a plant shutdown on September 5, 1983, to inspect steam generator tubes the plant tripped because an intermediate range high flux trip setpoint and reset were too low. The data gathered by the operators and the review of the data by the operations staff were thought appropriate. Although this process was not formalized into procedures, as stated in the violation, the information has since been verified to have been correct. It was determined that these intermediate range trip setpoint and reset problems are related to unique flux changes associated with the present core design.

3. Corrective Steps Taken and Results Achieved

The present intermediate range trip setpoints have been verified.

4. Corrective Steps Which Will be Taken to Avoid Further Violation

Procedure for the evaluation and determination of current corresponding to the nuclear instrumentation setpoints will be formalized for the next

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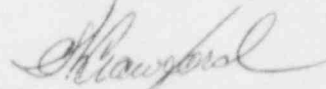
core cycle. In the interim the intermediate range detector responses will be monitored and any changes to setpoints will be proceduralized.

5. Date When Full Compliance Will Be Achieved

Procedures will be implemented prior to the start up for the next cycle.

If you have any questions concerning this response, please contact my staff or me.

Very truly yours,



for R. E. Morgan  
General Manager  
H. B. Robinson SEG Plant

CLW:FMG:JMC/th

cc: R. C. DeYoung  
S. Weise