

CP&L

Carolina Power & Light Company

Brunswick Steam Electric Plant
P. O. Box 10429 • Southport, N. C. 28461
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United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
NONCONFORMANCE - TEN YEAR HYDROSTATIC TEST REQUIREMENTS
SAFETY ASSESSMENT

Gentlemen:

On February 20, 1991, Carolina Power & Light Company (CP&L) conducted a conference call with members of NRR and Region II to discuss a licensee identified nonconformance pertaining to the first ten year hydrostatic test requirements of Section XI of the ASME Code. This letter provides the information requested by the staff during this call.

NONCONFORMANCE

Recently, CP&L was unable to document that certain portions of the Reactor Coolant System (RCS) pressure boundary, currently included in the second ten year Inservice Inspection Program, were included in the first ten year Inservice Inspection Program. The lines in question consist of the section of various vent and drain lines between the first and second isolation valves (32 lines on Unit 1, 5 of which have undergone replacement and testing, and a similar number on Unit 2). As a result, these sections of lines may not have been subject to the first interval ten year hydrostatic testing as required by Section XI of the ASME Code. Based on the Company's review of existing documentation, it is concluded that instead of maintaining the first isolation valve open with the second valve closed as required by the Inservice Inspection Program, the first isolation valve was closed during performance of the first interval hydrostatic test, isolating the section between the first and second isolation valves.

CORRECTIVE ACTIONS/SCHEDULE

Carolina Power & Light Company will perform hydrostatic testing which completes the 10 year hydrostatic test requirements during the next scheduled refueling outage for each unit (currently scheduled to begin in April 1992 for Unit 1 and September 1991 for Unit 2). Unit 1 is currently scheduled to startup from the Reload 7 outage on February 20, 1991. Many of the lines in question cannot be individually isolated and

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pressurized. Therefore, in order to perform the required hydrostatic testing a complete vessel hydrostatic test is required which would add approximately two additional weeks to the present outage. This would present an undue hardship for the Company and be contrary to the best interest of the public. Likewise requiring shutdown of Unit 2 would present similar concerns.

SAFETY ASSESSMENT

The identified nonconformance does not present a safety concern. The structural integrity of the vent and drain lines is not in question, only their leak-tightness. The affected drain lines are less than 1 inch in diameter. Hydrostatic/leakage pressure testing required by ASME Section XI verifies the integrity and leak tightness of the inboard isolation valves each refueling outage. In addition, hydrostatic testing of the affected lines was required during the construction of the units.

These inboard and outboard isolation valves are manual valves. They are currently isolated and inaccessible during power operation. The valves are independently verified closed prior to startup of the unit and remain so during normal power operation. As such, a highly unlikely passive failure of the inboard isolation valve must be assumed before the untested portion of the drain lines can be subject to system pressure and any problem can arise. Even if simultaneous passive failure of the first isolation valves along with sections of the affected lines is assumed, the consequences are bounded by the existing Updated FSAR Chapter 15 LOCA analysis and the reactor can be shutdown in a safe and orderly manner.

As stated above, inboard and outboard isolation valves are independently verified closed prior to startup of the unit and remain so during normal power operation. This fulfills the Technical Specification requirements associated with structural integrity of the RCS. The Technical Specifications address the structural integrity of the Reactor Coolant System in Technical Specification 3/4.4.8. ACTION a. of this section requires any ASME Code Class 1 component not conforming to the requirements of Technical Specification 4.0.5 (ASME Section XI inspections) either have structural integrity restored or be isolated. Therefore, under the current configuration, the margin of safety as defined in the basis of the Technical Specification has not been reduced even if the outboard sections of lines are assumed to have failed.

The integrity of the Unit 1 RCS pressure boundary to the first isolation valve has been assured through the recent performance of Periodic Test PT-80.1 which resulted in a total leakage of less than 1 gpm. The Unit 2 floor drain leakage is low (approximately 1 gpm) which indicates RCS pressure boundary integrity up to the inboard isolation valves. CP&L will maintain continued assurance of the RCS pressure boundaries of both units in accordance with Technical Specification 4.4.3.2 which requires monitoring of the

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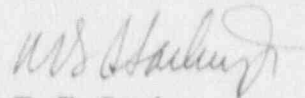
drywell and equipment drain sump flow rates at least once per 8 hours. Leakage rates are currently monitored every 4 hours.

CONCLUSION

Based on the above safety assessment, CP&L has determined that startup and operation of Unit 1 from the current refueling outage and the continued operation of Unit 2 until next scheduled refueling outage is justified and will not present a risk to the health and safety of the public. The required hydrostatic testing of these vent and drain lines will be completed during the next scheduled refueling outage for each unit (currently scheduled to begin in April 1992 for Unit 1 and September 1991 for Unit 2).

Please refer any questions regarding this submittal to Mr. M. R. Oates at (919) 546-6063.

Yours very truly,



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