



Carolina Power & Light Company

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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
NRC REGION II INSPECTION REPORT 84-44

Dear Dr. Grace:

On March 19, 1985, a conference call was held between Mr. Paul Fredrickson and Mr. Guy P. Beatty to discuss Carolina Power and Light Company's (CP&L) response to the NRC Region II Inspection Report 84-44, dated March 8, 1985. The purpose of this letter is to provide supplemental information as requested for Violation 84-44-03 and 84-44-01.

A. SEVERITY LEVEL IV VIOLATION (RII-84-44-03-SL4)

10CFR50.59 "Changes, Tests, and Experiments" requires evaluations be performed on changes to the facility as described in the FSAR and that these evaluations provide the basis for the determination that the change does not involve an unreviewed safety question (USQ).

Contrary to the above, 10CFR50.59 reviews did not contain adequate basis in that two reviews conducted on March 24, and May 7, 1984, for Modification Package No. 680, Revision 1, "Condensate Storage Tank Sealing Bladder," did not identify that an increase in the probability of occurrence of a malfunction of equipment important to safety as previously analyzed in the updated FSAR would occur with the implementation of this modification. Increasing this probability is one of the conditions necessary to involve a USQ. FSAR Section 9.2.5.1 analyzes the "malfunction" of the CST to be a complete failure. Modification Package 680 installation resulted in a CST overpressurization, a potential complete failure.

1. Admission or Denial of The Alleged Violation

CP&L denies the alleged violation.

2. Reason For The Denial

The Condensate Storage Tank (CST) was damaged by an overpressurization event which occurred on November 8, 1984, while the Plant was in cold shutdown with flushing of the Condensate System in progress. When one condensate pump was started, while the hotwell level was above the high level setpoint, condensate was pumped backed to the CST from the discharge of the condensate pumps. The flow entering the CST exceeded that discharging through the tank's overflow line, overpressurizing the tank and resulting in deformation of the tank top and some restraining devices. This event occurred subsequent to Modification 680 which installed a bladder in the CST to minimize the absorption of oxygen by the water in the CST.

The 10CFR50.59 evaluation and reviews of Modification 680 were adequately performed. 10CFR50.59 Paragraph (a)(1) allows the Licensee to make changes to the facility and its operation as described in the safety analysis report without prior approval, provided a change in the Technical Specifications is not involved or an "unreviewed safety question" does not exist.

The 10CFR50.59 evaluation and reviews of Modification 680 concluded that there would be no increase in the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the safety analysis report. The basis for this conclusion was that the bladder would not block the auxiliary feedwater pump suction line and that the bladder would not affect the ability of the CST to maintain the minimum required water volume. Since the modification provided for protection of the normal overflow path from blockage by the bladder and provided for testing to demonstrate this aspect of the CST modification, the safety reviewers had no basis for reconsidering the validity of the original overflow capacity design. Also, it was not determined by the safety reviewers that other tank penetrations had provided overflow relief on occasion in the past.

Subsequent discussions with Operations personnel revealed that the CST had previously overflowed through the manway. If the hotwell level is high when a condensate pump is initially started, then the transfer of water from the hotwell to the CST is intentional, and the spillage out the manway may not be recognized as out of the ordinary. Apparently, the observation of water spilling out of the manway was not associated with a restriction in the underground drainage system. The incident may have been dismissed as excessive flow into the CST when pumping down the hotwell during the initial start of the

condensate pumps. Documentation of spilling out of the manway was not deemed necessary because it was not recognized as a problem. It did not affect the function of the CST, and the water that overflowed ended up in the storm drainage system as it would if it overflowed through the overflow line. In retrospect, CP&L believes even Plant personnel who were aware of the tank overflow through these paths did not associate any significance with these occurrences and the subsequent bladder installation of Modification 680.

CP&L believes that if the CST manway and atmosphere vent at the top of the tank were intended to be overflow paths in the original tank design, then the installation of the bladder may have constituted an unreviewed safety question. Since the original design did not require the manway and the vent to serve as overflow paths, CP&L believes the original CST overflow design capability was preserved, and the change in the facility as described in the safety analysis report was not altered. As was acknowledged in our previous response to the violation of design controls in Modification 680 (84-44-04), the overpressurization resulted from inadequate design controls during the modification process and not from an inadequate basis in the 10CFR50.59 reviews.

Although the CST did overpressurize, it cannot be concluded solely by the evidence of overpressurization that the 10CFR50.59 review was inadequately performed. Instead, its adequacy should be determined by examining if the criteria of 10CFR50.59 were adequately applied to the modification of the CST. In this instance, the error was introduced in the design phase as acknowledged in the violation of design controls for Modification 680 (84-44-04). The error was not introduced nor could reasonably be expected to be recognized in the 10CFR50.59 review since, no consequence was placed on previous spillage through the manway.

It should also be noted, as described in our FSAR (Chapter 9.2.5.1), that safe shutdown and cooldown can be assured even if complete failure of the CST occurred due to tornado damage. Therefore, even in an overpressurization event to the CST where complete failure occurred, there is reasonable assurance that safe shutdown and cooldown can be accomplished without the CST.

CP&L concluded that the overpressurization of the CST was apparently due to a problem with the initial design in that the overflow path (beyond the CST overflow pipe) was not capable of relieving the flow to the CST. The 10CFR50.59 evaluation and reviews are not intended to involve recalculations of the initial design requirements, but rather are to consider changes made to the existing design basis. To that extent, the safety reviews associated with this modification were adequate. Therefore, CP&L believes that the evaluation and reviews conducted for Modification 680 are consistent with the requirements set forth in the 10CFR50.59 and are within the guidance provided in the IE Circular No. 80-1⁸

Carolina Power & Light Company respectfully requests that this violation be withdrawn.

B. SEVERITY LEVEL IV VIOLATION (RII-84-44-01-SL4)

Section 3.6.1.a of the Licensee's Technical Specifications requires that containment integrity shall not be violated unless the reactor is in the cold shutdown condition.

Contrary to the above, on November 30, 1984, with the reactor average temperature above 200°F, Licensee personnel opened service water vent valve SW 231 located outside containment. Because of a hole created during weld repair of service water piping inside containment, containment integrity was breached via a path within the service water supply piping to HVH-3 for a period of 40 hours.

1. Admission or Denial of the Alleged Violation

CP&L acknowledges the alleged violation.

2. Reason for the Violation

The following was extracted from LER 84-011.

On November 27, 1984, the Plant was in hot shutdown. Containment Fan Cooler HVH-3 was isolated for weld repairs to its service water lines. During welding, a pinhole was made in the service water line to HVH-3 in containment. Water leaking from this hole prevented further welding repair. The Shift Foreman directed a member of this shift to open a vent valve outside containment between the isolation valve and HVH-3, which should have allowed the service water line to HVH-3 to drain. Opening this vent valve was not properly documented; therefore, it was not properly controlled.

On November 29, 1984, the Shift Foreman was requested to drain this service water line for radiographic testing. The Operating Supervisor recognized that containment integrity would be violated with this service water vent valve open outside containment with a hole in the same service water line inside containment. The recent position of the vent valve was questioned, so an operator was asked to check the valve's position. The valve was found open and was subsequently shut at 1615 hours on November 29, 1984.

The vent valve was opened coincident with the service water line in containment leaking. This resulted in a direct path from the containment atmosphere to the outside atmosphere. During the two-day period of the event, Reactor Coolant System (RCS) temperature varied from 520°F to 545°F. Containment integrity is required by Technical Specifications whenever RCS temperature is greater than 200°F. Therefore, a violation of containment integrity existed during this period.

The Shift Foreman determined that the hole in the service water line was not a containment integrity concern based on a determination that weepage on the service water lines in containment did not constitute a containment integrity concern as long as the Plant was in hot shutdown. At the time the vent valve was opened, HVH-3 was out of service in accordance with the Operations Work Procedure (OWP). Also, the individual involved did not realize that the manipulation of this valve without a procedure and without independent verification is in conflict with Plant procedures and the OWP.

3. Corrective Steps Which Have Been Taken

The individual involved in this incident has been counseled on the causes of its occurrence in order to ensure that there is not a recurrence. Operations personnel reviewed LER 84-011 that dealt with this event.

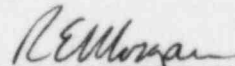
4. Corrective Steps Which Will Be Taken

This event is being included in the 1985 Operator's Retraining Program as another example of containment integrity concerns.

5. Date When Full Compliance Will be Achieved

Full compliance has been achieved.

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



R. E. Morgan
General Manager

H. B. Robinson S. E. Plant

CLW/GH:tk/C-607

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