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Records Management Branch (Document Control Desk)

SUBJECT: Provides revised responde to 980327 NRC ltr re violations noted in insp rept 50-400/98-01.Corrective actions:fire seal P 3308 & two addl fire seals (P 661 & P 671) have been evaluated & determined operable & revised procedure CMP-010.

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JUN 30 1998

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
REVISED REPLY TO A NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 50-400/98-01)

Dear Sir or Madam:

On April 24, 1998, Carolina Power & Light Company (CP&L) responded to the Notice of Violation enclosed in NRC Inspection Report 50-400/98-01 dated March 27, 1998, for the Harris Nuclear Plant (HNP). Specifically, Violation C, cited HNP's failure to adequately implement and maintain applicable procedural requirements of the fire protection program. Included in HNP's reply to Violation C, under "Corrective Steps That Will Be Taken to Avoid Further Violations" were the following actions:

- "The Standard Typical Design details for fire penetration seals will be compared to their associated Fire Test and updated with the required design information by June 30, 1998."

- "A review of the Penetration Seal Design Screen (PSDS) data base will be performed to identify other unanalyzed or untested deviations by September 3, 1998. Any unanalyzed or untested deviations identified by this review will be dispositioned in accordance with the Harris Plant's Condition Reporting process."

At the time of HNP's April 24, 1998 response, the magnitude of the documentation and the time required to perform the engineering evaluations to complete the above actions were significantly under estimated. Therefore, the previously stated completion dates of June 30, 1998 and September 3, 1998, cannot be met.

The projected completion date for the first action stated above is being revised from June 30, 1998 to June 30, 1999. Additionally, the scope of review is being changed from a complete review to a sample review which will initially cover 10% of the Standard Typical Design

Details. The sample size will be increased as the reviewed results dictate. The completion date of June 30, 1999, will allow sufficient time for Plant Engineering personnel to perform a review of a sample population of the drawings against their associated Fire Test Report(s) and to complete the required design evaluations and correct the existing plant documentation, if required. The projected completion date for the second action stated above is being revised from September 3, 1998, to October 29, 1999. This will allow sufficient time for Plant Engineering personnel to complete the review of the Penetration Seal Design Screen data base against outliers resulting from the sample population review of the drawings and to disposition any unanalyzed or untested deviations through the Condition Reporting process.

Reviews of Standard Typical Design Detail drawings and the associated Fire Test Reports performed to date have identified minor discrepancies; however, these discrepancies have not resulted in any operability concerns. Deviations from existing plant documentation will be reported under the plant Corrective Action Program. Based on the above, the changes in the scope and schedule for completing these corrective actions is considered to be appropriate.

As a result of the schedule changes discussed above, CP&L is providing the attached revised reply to Violation C. The revision also reflects completion of other corrective actions related to Violation C since our April 24, 1998 response.

Questions regarding this matter may be referred to Mr. J. H. Eads at (919) 362-2646.

Sincerely,

J. W. Donahue
Director of Site Operations
Harris Plant

MGW

Attachment

c: Mr. J. B. Brady (NRC Senior Resident Inspector, HNP)
Mr. S. C. Flanders (NRR Project Manager, HNP)
Mr. L. A. Reyes (NRC Regional Administrator, Region II)

REVISED REPLY TO NOTICE OF VIOLATION
NRC INSPECTION REPORT NO. 50-400/98-01

Reported Violation C:
Technical Specification 6.8.1.h states that written procedures shall be established, implemented, and maintained covering the fire protection program implementation.

Operating License Condition 2.C.F states, in part, that Carolina Power and Light (CP&L) implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report (FSAR) for the facility.

FSAR sections 9.5.1.2 states that penetration seal designs are qualified by tests.

Penetration installation procedure CMP-010, "Installation of Penetration Seals," Revision 8, section 7.0.12, states that Engineering shall specify size and location of subdividing partitions and material to be used on large floor/ceiling penetrations requiring subdividing as specified on typical detail drawings.

Penetration seal typical detail drawing 1364-93035, sheet 3, Revision 0, General Note No. 4 indicates that a penetration seal be subdivided by partitions if the maximum seal area limit is exceeded. The note also requires that the penetration engineers prepare sketches/drawings of the subdividing design and the materials (including structural support elements) installed and that this subdividing design documentation become a permanent part of the engineering documentation package of the seal.

Contrary to the above, the licensee did not adequately implement and maintain the applicable procedural requirements of the fire protection program as evidenced by the following:

1. Prior to February 6, 1998, the licensee failed to conduct qualification tests to demonstrate that the as-built penetration seal configuration of fire seals P 3308 and P 447A were adequate.

2. Prior to February 6, 1998, the licensee failed to implement penetration installation procedure CMP-010, in that Engineering failed to prepare sketches/drawings of a modification which subdivided a large electrical penetration fire seal number E 156.

This is a Severity Level IV violation (Supplement I).

Denial or Admission of Violation:
The violation is admitted.

Reason for the Violation:
A review of the seal history for these penetrations identified they were installed in 1986 and 1987 during original construction of the plant. With regard to fire seals P 3308 and P 477A (stated above as P 447A in error) discussed in Example 1, it appears that personnel involved in the selection of these penetration seal designs failed to recognize the deviations between the "as tested" and the installed configurations. The concern with P 3308 was that the penetration seal design (MR-5)

Reason for the Violation: (continued)
utilized in a block-out configuration was tested for a pipe sleeve configuration. Fire seal P 477A has a cooper pipe element penetrating it and the penetration seal design (ML-2) utilized was not tested using copper pipe. The Standard Typical Design details used in the penetration seal installations do not address all the critical attributes that pertain to the tested configuration which is considered to be the cause for not identifying these deviations.

With regard to fire seal E 156 discussed in Example 2, it appears that at the time of installation personnel incorrectly concluded that the design details provided adequate engineering detail (FCR-FP-410 required sketches only "if applicable") and QC inspectors and Engineering signed off on the installation package without preparing additional sketches/drawings.

Corrective Steps Taken and Results Achieved:
Fire seal P 3308 and two additional fire seals (P 661 and P 671), identified with the same deviation, have been evaluated (ESR 98-00110) and determined to be operable.

Fire seal P 477A and one additional fire seal (P 1291), identified with the same deviation, have been declared inoperable and entered in the Out-of-Service log. A one hour fire watch has been established for these two penetrations until the deviation is properly evaluated for acceptance.

Fire seal penetrations having copper pipe installed and block-out penetrations using an MR-5 penetration seal design have been evaluated and properly documented. This action was completed on June 1, 1998.

A review of the installation package for fire seal E 156 has been completed. This review determined that a QC holdpoint had been established to ensure that the penetration was subdivided by a marinate board so that no one area exceeded 1800 square inches. This holdpoint was signed off by QC as having been met. As this criteria is per the penetration design, the penetration is considered to be operable and no further actions are required for this penetration.

Procedure CMP-010 has been revised to include additional attributes of subdividing material used and to remove the requirement for subdividing board installation sketches/drawings. This action was completed on June 17, 1998.

Corrective Steps That Will Be Taken to Avoid Further Violations:
A sample population of 10% of the Standard Typical Design details for fire penetration seals will be compared to their associated Fire Test Report and updated with the required design information. The sample size will be increased as the review results dictate. The initial sample population review and any additional increase in scope will be completed by June 30, 1999.

A review of the Penetration Seal Design Screen (PSDS) data base will be performed against outliers resulting from the sample population review of the drawings to identify unanalyzed or untested deviations by October 29, 1999. Any unanalyzed or untested deviations identified by this review will be dispositioned in accordance with the Harris Plant's Condition Reporting process.

Date When Full Compliance Was Achieved:
Full compliance was achieved on June 1, 1998, when fire seal penetrations having copper pipe installed and block-out penetrations using an MR-5 penetration seal design were evaluated and properly documented.