UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

April 16, 2002

EA-00-022
EA-01-310

Carolina Power & Light Company
ATTN: Mr. James Scarola
Vice President - Harris Plant
Shearon Harris Nuclear Power Plant
P. O. Box 165, Mail Code: Zone 1
New Hill, NC 27562-0165

SUBJECT: FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING AND NOTICE OF VIOLATION (SHEARON HARRIS NUCLEAR POWER PLANT - NRC INSPECTION REPORT 50-400/00-09)

Dear Mr. Scarola:

The purpose of this letter is to provide you with the final results of our significance determination for the preliminary White finding and our conclusions related to the significance of two apparent violations associated with the Thermo-Lag fire barrier assembly at Carolina Power and Light Company's (CP&L) Shearon Harris Nuclear Power Plant. The fire barrier serves as the fire area separation barrier between Fire Area 1-A-SWGR-B [B Train Switchgear Room/Auxiliary Control Panel Room] and Fire Area 1-A-CSR-A [A Train Cable Spreading Room]. Based on your Thermo-Lag barrier fire resistance tests conducted in 1994 and 1995, this fire barrier did not have the required three-hour fire resistance rating. The inspection finding was assessed using the Significance Determination Process (SDP) and was preliminarily characterized as White (i.e., an issue with low to moderate increased importance to safety, which may require additional NRC inspections). At your request, an open regulatory conference was conducted with you and members of your staff on January 31, 2002, to discuss your views on this issue. In addition, a predecisional enforcement conference was also held to discuss a related matter involving a change that CP&L made to the Harris Fire Protection Program, as discussed below. Enclosure 2 lists the attendees at the regulatory and predecisional enforcement conferences. Enclosures 3 and 4 include copies of the material presented at the conference by the NRC and CP&L, respectively.

During the regulatory conference, CP&L representatives described the analytical approach used in determining the significance of the finding, provided a description of the physical configuration of the fire area, and discussed the key factors considered by CP&L in estimating the change in core damage frequency (CDF). CP&L's presentation highlighted the major differences between its best estimate of the incremental increase in CDF and the NRC's preliminary assessment. Based on the results of your analysis, CP&L concluded that the incremental increase in CDF was consistent with a Green finding.

After the regulatory conference, the NRC revised its risk assessment after considering the information discussed at the conference, and an additional review of the factors and

assumptions used in the NRC's initial determination of the increase in risk. The NRC's letter of March 18, 2002, forwarded the NRC's revised risk estimate and the basis for the factors that support the estimate, and offered CP&L the opportunity to provide its perspectives on the updated information. CP&L subsequently informed the NRC by telephone that the risk information presented at the regulatory conference was sufficient to characterize the risk properly, and that it did not intend to provide any additional technical information on the matter at this time.

After considering the information developed during the inspection, the information you provided at the conference, as well as the information developed and revised by the NRC after the conference, the NRC has concluded that the inspection finding resulted in an incremental increase in CDF of approximately $7x10^{-6}$ per year. The technical basis for this determination was fully discussed in the revised risk assessment forwarded to CP&L by letter dated March 18, 2002. Accordingly, the final significance of the finding is characterized as White. In addition, the NRC has concluded that the fire area separation barrier failed to comply with 10 CFR 50.48, Harris Operating License Condition 2.F, and Updated Final Safety Analysis Report (UFSAR) 9.5.1.2.2, in that the fire resistance rating was indeterminate instead of the required three hour rating. Additional enforcement aspects of this issue are discussed below.

You have 10 business days from the date of this letter to appeal the staff's determination of significance for the identified White finding. Such appeals will be considered to have merit only if they meet the criteria given in NRC Inspection Manual Chapter 0609, Supplement 2.

A predecisional enforcement conference was also held on January 31, 2002, to discuss an apparent violation involving a change made by CP&L to the Fire Protection Program. This finding was not evaluated under the SDP but was considered for escalated enforcement action because it appears to have impacted the NRC's ability to perform its regulatory function.

Based on the information developed during the inspection and the information you provided during the predecisonal enforcement conference, the NRC has determined that the change made by CP&L to the Fire Protection Program resulted in a violation of License Condition 2.F of the Harris Operating License. Specifically, the change to the Fire Protection Program in 1997 involved revising the rating of the Thermo-Lag fire barrier assembly from three hours to that suitable for the hazard. The NRC concluded that this change increased the likelihood that both redundant divisions or trains of safety-related systems could be damaged by a single fire. As such, this change required prior NRC approval, in that it adversely affected the ability to achieve and maintain safe shutdown in the event of a fire. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions - May 1, 2000" (Enforcement Policy), NUREG-1600, this violation is characterized as a Severity Level III violation because the significance of the change resulted in a low to moderate increase in risk.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $60,000 is considered for a Severity Level III violation. Because your facility has not been the subject of escalated enforcement action within the last two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process described in Section VI.C.2 of the Enforcement Policy. Your corrective actions included the initiation of fire watches in the area, the consideration of various modification options with the long term intent to restore the barrier to the required three hour fire rating, and a re-emphasis during the design change process to consider inputs from multiple site organizations and

disciplines. Based on the above, the NRC concluded that your actions were prompt and comprehensive, and credit was warranted for the factor of *Corrective Action*.

Therefore, to encourage prompt and comprehensive correction of violations and in recognition of the absence of previous escalated enforcement action, I have been authorized to propose that no civil penalty be assessed in this case. However, similar violations in the future could result in further escalated enforcement action.

As CP&L discussed at the conferences, the non-compliance involving the indeterminate fire barrier rating and the non-compliance involving the inappropriate change to the Fire Protection Program both stemmed, in part, from incorrect decisions by CP&L regarding the acceptability of the fire barrier testing results. The NRC agrees with this determination, and has concluded that it is appropriate to cite these non-compliances as one violation in the enclosed Notice of Violation (Notice).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed on the docket in this letter and in the information presented by CP&L at the regulatory and predecisional enforcement conferences. Therefore, you are not required to respond to the provisions of 10 CFR 2.201 unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

Because plant performance for this White finding has been determined to be in the increased regulatory response band, we will use the NRC Action Matrix to determine the most appropriate NRC response for this finding. We will notify you, by separate correspondence, of that determination.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/ADAMS.html (the Public Electronic Reading Room).

If you have any questions regarding this matter, please contact Charles Casto, Director, Division of Reactor Safety, at 404-562-4600.

Sincerely,

/RA/

Luis A. Reyes
Regional Administrator

Docket No.: 50-400
License No.: NPF-63

Enclosures: 1. Notice of Violation
2. List of Attendees

3. Material presented by NRC
4. Material presented by CP&L

cc w/encls:
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Performance Evaluation and
Regulatory Affairs CPB 9
Carolina Power & Light Company
Electronic Mail Distribution

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Director of Site Operations
Carolina Power & Light Company
Shearon Harris Nuclear Power Plant
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Plant General Manager--Harris Plant
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NAME	CCASTO	CEVANS	BMALLETT	WROGE		FCONGEL	TYRE
DATE	4/8/02	4/5/02	4/10/02	4/10/02		R/9/02	

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NOTICE OF VIOLATION

Carolina Power and Light Company
Shearon Harris Nuclear Power Plant
Unit 1

Docket Nos.: 50-400
License Nos.: NPF-63
EA-00-022, EA-01-310

During an NRC inspection completed on December 12, 2001, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions - May 1, 2000," (Enforcement Policy), the violation is listed below:

> 10 CFR 50.48 requires that all operating nuclear power plants have a fire protection program that satisfies Criterion 3 of Appendix A to 10 CFR 50.
>
> Harris Operating License NFP-63, Condition 2.F, "Fire Protection Program," specifies, 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 (UFSAR) for the facility as amended and as approved in the Safety Evaluation Report (SER) dated November 1983 (and supplements 1 through 4), and the Safety Evaluation dated January 12, 1987. License Condition 2.F permits the licensee to make changes to the approved fire protection program without prior NRC approval only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
>
> Harris UFSAR Sections 9.5.1.2.2, "Barriers and Access," states that fire barriers with a minimum fire resistance rating of three hours are provided such that both redundant divisions or trains of safety-related systems are not subject to damage from a single fire to the extent possible in accordance with NRC position C.5.b.(2) of Branch Technical Position Chemical Engineering Branch (CMEB) 9.5-1 (NUREG-0800), July 1981.
>
> Harris UFSAR Section 9.5.1.2.2 and Section 9.5.1.4 of the SER dated November 1983 identifies the Thermo-Lag fire barrier wall assembly between the B Train Switchgear Room/Auxiliary Control Panel Room and the A Train Cable Spreading Room as a three-hour rated fire barrier.
>
> Contrary to the above, the licensee failed to implement and maintain NRC approved fire protection program safe shutdown system separation requirements for the Thermo-Lag fire area separation barrier between the B Train Switchgear Room/Auxiliary Control Panel Room and the A Train Cable Spreading Room. The installed fire area separation barrier had an indeterminate fire resistance rating instead of three hours as referenced in the Harris UFSAR and NRC SERs that established the approved fire protection program. In addition, on August 18, 1997, the licensee made changes to the approved fire protection program without prior Commission approval, that adversely affected the ability to achieve and maintain safe shutdown in the event of a fire. In Safety Evaluation 97-255, the licensee accepted the condition of a degraded Thermo-Lag fire barrier assembly between the B Train Switchgear Room/Auxiliary Control Panel Room and the A Train Cable Spreading Room B in lieu of the intended three-hour fire rating. The licensee made changes to UFSAR Sections 9.5 and 9.5A by revising the rating of the Thermo-Lag fire barrier assembly from three-hour rated to that suitable for the hazard. This change increased the likelihood that both redundant divisions or trains of safety-

related systems could be damaged by a single fire. Therefore, this change could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire, and thus required NRC approval prior to its implementation.

This violation is characterized as a Severity Level III violation and is associated with a White SDP finding.

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence and the date when full compliance was achieved is already adequately addressed on the docket in this letter and in the information presented by Carolina Power and Light Company at the regulatory and predecisional enforcement conference. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region RII, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at http://www.nrc.gov/reading-rm/ADAMS.html (the Public Electronic Reading Room). Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 16th day of April 2002

LIST OF REGULATORY CONFERENCE AND
PREDECISIONAL ENFORCEMENT CONFERENCE ATTENDEES

NUCLEAR REGULATORY COMMISSION:
B. Mallett, Deputy Regional Administrator, RII
C. Casto, Director, Division of Reactor Safety (DRS), RII
C. Ogle, Chief, Engineering Branch 1, DRS, RII
W. Rogers, Senior Reactor Analyst, DRS, RII
B. Bonser, Branch Chief, Division of Reactor Projects (DRP), RII
J. Brady, Senior Resident Inspector, DRP, RII
C. Evans, Enforcement Officer, RII
S. Sparks, Senior Enforcement Specialist, RII
C. Payne, Team Leader, Engineering Branch 1, DRS, RII
G. Wiseman, Senior Reactor Engineer, DRS, RII
G. MacDonald, Project Engineer, DRP, RII
D. Nelson, Senior Enforcement Specialist, Office of Enforcement
E. Connell, Senior Fire Protection Engineer, Office of Nuclear Reactor Regulation (NRR), telecon
J. Goshen, Project Manager, NRR, telecon
J. Hyslop, Senior Reactor Analyst, NRR, telecon
R. Laufer, Acting Chief, Section II-1, Project Directorate II, NRR, telecon
E. Weiss, Chief, Fire Protection and Special Projects Section, NRR, telecon

Progress Energy Corporation (PEC)/CAROLINA POWER AND LIGHT COMPANY (CP&L):
J. Scarola, Harris Plant Vice President
G. Attarian, Engineering Manager
E. McCartney, Engineering Superintendent
D. Field, Regulatory Affairs Manager
J. Caves, Licensing Supervisor
K. Zee, Consultant for CP&L, ERIN Engineering