



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

70-2997

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PDR

Docket No. 50-400

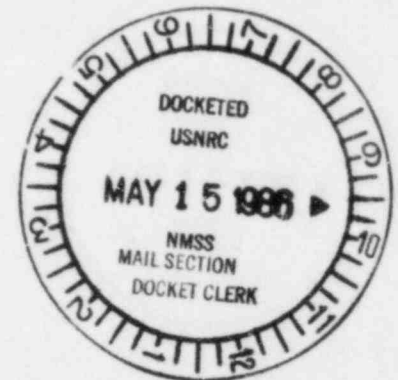
MEMORANDUM FOR: B. Buckley, Senior Project Manager
PWR Project Directorate No. 2
Division of PWR Licensing - A

FROM: Charles E. Rossi, Assistant Director
for PWR-A
Division of PWR Licensing - A

SUBJECT: FIRE PROTECTION SUPPLEMENTAL SAFETY
EVALUATION REPORT - SHEARON HARRIS
NUCLEAR POWER PLANT, UNIT 1



Applicant: Carolina Power & Light Co.
Plant Name: Shearon Harris Nuclear Power Plant, Unit 1
Docket No.: 50-400
Licensing Stage: OL
Responsible Directorate: PWR PD#2
Project Manager: B. Buckley
PSB Reviewer: S. West
Review Status: Complete



Staff fire protection guidelines of Section C.1.e(1) of BTP CMEB 9.5-1 state that the fire protection program for buildings storing new reactor fuel and for adjacent fire areas that could affect the fuel storage area should be fully operational before fuel is received at the site. By letter dated October 14, 1983, the applicant committed to meet this guideline. By letter dated April 16, 1986, the applicant informed the staff that this commitment will not be met because electrical cable penetrations in a 3-hour fire rated barrier for this area will not be sealed before fuel is received at the site. The applicant proposes to establish a continuous fire watch as a compensatory measure until the penetrations are sealed. The applicant has indicated that the penetrations will be sealed by July 1, 1986.

The staff's evaluation is enclosed. Based on its evaluation, the staff has concluded that establishment of a continuous fire watch until the electrical

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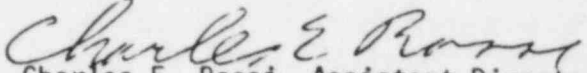
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DESCRIPTION:


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05/15/86 INITIAL CEC

penetrations are sealed provides an adequate level of fire safety and is, therefore, acceptable.

The SALP input transmitted with our March 13, 1986 memorandum is still valid.


Charles E. Rossi, Assistant Director
for PWR-A
Division of PWR Licensing - A

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DIVISION OF PWR LICENSING-A/PLANT SYSTEMS BRANCH
SUPPLEMENTAL SAFETY EVALUATION REPORT
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-400

9.5 Other Auxiliary Systems

9.5.1 Fire Protection

9.5.1.1 Fire Protection Program Requirements

Fire Protection Program

Staff fire protection guidelines of Section C.1.e(1) of Branch Technical Position (BTP) CMEB 9.5-1 state that the fire protection program for buildings storing new reactor fuel and for adjacent areas that could affect the fuel storage area should be fully operational before fuel is received at the site. By letter dated October 14, 1983, Carolina Power & Light Company (the applicant) committed to meet the guidelines of Section C.1.e.(1) of BTP CMEB 9.5-1. By letter dated April 16, 1986, the applicant informed the staff that it could not meet this commitment because electrical penetrations in a new fuel storage area fire barrier will not be sealed before fuel is received at the site.

The new fuel storage area is located on elevation 286 feet of fuel handling building fire area 5-F-BAL. The combustible loading in the area is negligible. Manual hose stations and portable fire extinguishers will be installed in the vicinity of the new fuel storage area prior to receipt of new fuel in accordance with Section C.7.1 of PTP CMEB 9.5-1. The fire barriers enclosing the

fire area, including structural columns supporting the area, are 3-hour fire rated. However, approximately 100 electrical penetrations through barriers bounding the new reactor fuel storage area will not be sealed before new reactor fuel is received at the site because the cable pulls will not be complete. The new fuel area is separated from the unsealed electrical penetrations by at least 19 feet.

The applicant proposes to establish a continuous fire watch at fuel handling building elevation 286 feet as a compensatory measure until the electrical penetrations are sealed. The applicant has indicated that the penetrations will be sealed by July 1, 1986.

The staff was concerned that a fire in the vicinity of the unsealed barrier penetrations would spread through the barrier and affect the new fuel storage area. The staff evaluated conditions on both sides of the barrier and found no significant unmitigated fire hazards in the proximity which might represent a threat to the new fuel storage area. Moreover, establishment of a continuous fire watch when a barrier is not functional meets technical specification requirements and provides reasonable assurance that any fire will be discovered during its early stages and extinguished with available equipment before significant damage occurs.

The staff was also concerned that continuing construction operations would result in the introduction of fire hazards that could threaten the new fuel storage area. However, major construction activities are complete and

the fuel storage area will be turned over to operations prior to receipt of new reactor fuel. Therefore, the staff has reasonable assurance that fire hazardous construction activities, e.g., cutting and welding, will be adequately controlled.

On these bases, the staff concludes that, with the establishment of a continuous fire watch, the lack of fire rated electrical penetration seals does not significantly decrease the level of fire safety. Furthermore, the applicant has committed to seal the penetrations by July 1, 1986. This is therefore, an acceptable deviation from Section C.1.e(1) of BTP CMEB 9.5-1.