



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

October 4, 1988

Docket Nos. 50-335
and 50-389

Mr. W. F. Conway
Senior Vice President-Nuclear
Nuclear Energy Department
Florida Power and Light Company
Post Office Box 14000
Juno Beach, Florida 33408-0420

Dear Mr. Conway:

SUBJECT: ST. LUCIE UNITS 1 AND 2 - REVISIONS TO FIRE
PROTECTION SAFETY EVALUATIONS

By letter dated February 21, 1985, the staff approved a number of exemptions from the technical requirements of Appendix R to 10 CFR Part 50 for St. Lucie, Unit 1. By letter dated December 5, 1986, the staff approved a number of deviations from staff fire protection guidelines for St. Lucie, Unit 2.

A conference call was held on July 6, 1988 between members of your staff and the NRC staff. The above specified safety evaluations were discussed in terms of actual plant configurations, and a number of inaccuracies were determined. It was agreed that the staff would revise the above subject evaluations to more accurately reflect plant conditions.

Enclosure 1 is a revision to the February 2, 1985 safety evaluation for Unit 1, whereas Enclosure 2 is a revision to the December 5, 1986 safety evaluation for Unit 2. The information in these enclosures should be considered part of the documentation necessary to justify exemptions and deviations for the St. Lucie Plant.

The staff requests that you review the information contained in the enclosures and if any information is not properly characterized, you should notify us within 30 days of your receipt of this letter.

Please contact me at at (301) 492-1474 if you have any questions concerning this letter.

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Mr. W. F. Conway
Florida Power & Light Company

St. Lucie Plant

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REVISION TO FIRE PROTECTION SAFETY EVALUATION
ST. LUCIE, UNIT 1
(TAC NO. 67414)

In Revision 3 to the Fire Hazards Analysis for Unit 1, the licensee requested approval of an exemption from the technical requirements of Section III.G.2.a. of Appendix R to 10 CFR 50 in the Auxiliary Feedwater Pump Area. The staff evaluated the licensee's justification and concluded that an equivalent level of fire safety had been attained to that which would have been achieved had the criteria of Section III.G. of the rule been implemented. The staff, however, granted the exemption from Section III.G.2.b. These two sections identify different fire protection criteria. III.G.2.a. requires that redundant shutdown systems be separated by a 3-hour fire barrier. Section III.G.2.b. stipulates that redundant systems be separated by a horizontal distance of at least 20 feet and requires protection by automatic fire detection and suppression systems. The staff reaffirms that the licensee's alternate fire protection configuration for the Auxiliary Feedwater Pumps, as described in the licensee's submittals, is acceptable. Therefore, the exemption from Section III.G.2.a. is considered approved.

REVISION TO THE FIRE PROTECTION SAFETY EVALUATION
ST. LUCIE, UNIT 2
(TAC NO. 67414)

1.0 INTRODUCTION

By letter dated December 5, 1986, the staff transmitted its safety evaluation (SE) which approved a number of deviations from NRC fire protection guidelines at Unit 2. The licensee subsequently identified a number of technical inaccuracies in the SE. The staff's evaluation of these comments is as follows:

2.0 DISCUSSION/EVALUATION

In the staff's discussion of conditions within Fire Area AA, the safety evaluation contains the statement: "There are no components required for hot shutdown located in this fire area." In fact, the Diesel Oil Storage Tank (DOST) 2A and the Diesel Oil Transfer (DOT) Pump 2A are located in fire zone 1 of this area. However, because redundant components are located in a separate fire area the staff considers the presence of these components in Area AA to be acceptable.

In Section 3.1.1 of the safety evaluation the staff evaluated and found acceptable the existing fire barriers which separate redundant safe shutdown systems in Fire Areas AA and BB. Although this section is entitled "Fire Area AA," the evaluation pertains to fire barriers in both fire areas.

Section 3.1.3 of the SE contains a statement: "If a fire were to occur in those locations which are completely protected by an automatic fire suppression system, it is expected that the system would actuate and extinguish the fire or control it until the brigade arrived." The licensee noted that the areas which are the subject of the evaluation are not "completely" protected by an automatic suppression system. Nevertheless, where a "partial" suppression system exists, the automatic sprinklers are located so as to protect the cables which are enclosed in a fire rated wrap. Therefore, the lack of a complete automatic fire suppression system is considered acceptable. Where no suppression systems exist the licensee has protected one division of safe shutdown cable in a 3-hour fire-rated enclosure. On this basis, the staff considers this issue resolved.

In Section 3.2 of the SE the staff referred to the corridor which serves the charging pump room as being protected by "full area" fire detection and suppression systems. In fact the area in which the corridor is located (Area 0) has a partial fire suppression system as described by the licensee and as accepted by the staff in Section 6.0 of the safety evaluation.

Section 5.1.1. of the SE states, "Cables are located in covered metal cable trays or conduits." In fact, not all trays are covered. However, cable tray covers do not significantly mitigate the exposure fire hazard associated with cable insulation and were not a factor in the staff's acceptance of the level of fire protection in the plant. Consequently, the lack of covers on all cable trays is not considered significant from a safety standpoint.

Section 6.0 of the safety evaluation contains the following statement: "Automatic sprinkler systems are installed in all locations that contain redundant safe shutdown cabling and heavy cable congestion (i.e., areas containing more than six cable trays)." While automatic sprinklers are, in general, located in areas of heavy cable concentration the parenthetical expression should be deleted as it does not accurately reflect the licensee's design philosophy. In addition, automatic sprinkler systems are not installed in all areas containing redundant safe shutdown systems. In certain plant locations redundant systems are separated by 3-hour barriers per Section III. G.2.a. of Appendix R to 10 CFR 50 or alternate configurations have been provided as have been specifically approved by the staff in other sections of the safety evaluation.

In Section 6.0 of the SE the staff discussed the acceptability of no fire detectors in six locations. The staff stated, "The above rooms do not contain safe shutdown trains." In fact, the hallway to the division B fan room contains a conduit which is protected by a fire-rated enclosure. This condition, however, does not alter the staff's conclusion concerning the acceptability of the deviation.

3.0 CONCLUSION

Based on this evaluation the staff concludes that the revised description of plant fire protection features as delineated above are acceptable. The staff's conclusions regarding the acceptability of the fire protection deviations described in the December 5, 1986 letter remain valid.

Mr. W. F. Conway

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October 4, 1988

The reporting and/or recordkeeping requirements contained in this letter affect fewer than 10 respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by

E. G. Tourigny, Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/enclosures:
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