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SUBJECT: Application for amend to License NPF-63,request TS 4.3.2 re ESFAS instrumentation.

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CP&L

Carolina Power & Light Company
PO Box 165
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William R. Robinson
Vice President
Harris Nuclear Plant

SERIAL: HNP-96-025
10 CFR 50.90

FEB 1 6 1996

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
REQUEST FOR EXIGENT LICENSE AMENDMENT
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM (ESFAS) INSTRUMENTATION

Gentlemen:

In accordance with the provisions of Title 10, Code of Federal Regulations, Parts 2.101, 50.90 and 50.91(a)(6), Carolina Power & Light Company (CP&L) hereby requests an exigent revision to the Technical Specifications (TS) for the Harris Nuclear Plant (HNP).

Technical Specification (TS) 4.3.2, Engineered Safety Features Actuation System (ESFAS) Instrumentation, requires that each instrumentation channel and interlock and the automatic actuation logic and relays be demonstrated operable by performance of surveillance testing specified in TS Table 4.3-2. Table 4.3-2, Item 1.a requires that a trip actuating device operational test be performed for Safety Injection manual initiation at least every 18 months. Also, TS 4.3.2 requires that the response time of each ESFAS function be demonstrated to be within limits at least once every 18 months.

The redundant SSPS trains at the Harris Nuclear Plant are designed to automatically initiate a safety injection on receipt of various input parameters. HNP operators also have the capability of manually initiating safety injection if the automatic initiation logic fails or in anticipation of an automatic signal. Redundant manual actuation of safety injection is provided on the Main Control Board (MCB) by two switches, one on panel A and one on panel C. Each switch provides input to both trains (a total of four contacts) of the Solid State Protection System (SSPS). During systematic review of testing procedures, while both switches were manipulated, CP&L discovered that only three of the four switch contacts have been tested in the required 18-month periodicity. The fourth switch contact (Train B input contact from panel C switch) was last tested on May 2, 1994. The 18-month surveillance for that contact will expire on March 16, 1996.

Contact testing cannot be performed at power because of the risk of causing plant transients. Testing at power would require blocking the manual SI input to both trains from this switch. Because both panel A and C switch contacts feed the same terminal in the SSPS logic cabinet, lifting leads would also cause the MCB panel A manual switch to be inoperable. A plant shutdown to Mode 5 would be required in order to comply with the TS surveillance requirements. Therefore, CP&L is requesting a one-time extension of the testing interval for this fourth contact by an exigent revision to the HNP Technical Specifications.

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Operational and test history demonstrates that these switch contacts are inherently reliable. In the unlikely event that this contact fails, operators still have the ability to actuate either Train A or Train B of the SSPS with the redundant switch on MCB panel A.

10 CFR 50.91(a)(6)(vi) requires that a licensee explain the nature of the exigency and why the exigency could not have been avoided. As a part of the self-assessment program at the Harris Nuclear Plant, CP&L began a systematic review of TS surveillance procedures associated with the actuation logic for ESF component in the last quarter of 1995. CP&L discovered the testing discrepancy on February 12, 1996. It was unforeseeable when the review began that such a discrepancy would be discovered within 33 days of the SSPS Train B input from the MCB panel C switch becoming inoperable, based upon the 18-month surveillance requirement. Therefore, a license amendment request could not be feasibly submitted to the NRC in time to allow for the normal notice and review process of 10 CFR 50.91.

Enclosure 1 provides a detailed description of the proposed changes and the basis for the changes.

Enclosure 2 details, in accordance with 10 CFR 50.91(a), the basis for the Company's determination that the proposed changes do not involve a significant hazards consideration.

Enclosure 3 provides an environmental evaluation which demonstrates that the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental assessment needs to be prepared in connection with the issuance of the amendment.

Enclosure 4 provides Page Change Instructions.

Enclosure 5 provides the proposed Technical Specification pages.

In accordance with 10 CFR 50.91(b), CP&L is providing the State of North Carolina with a copy of the proposed license amendment.

Please refer any questions regarding this submittal to Mr. T. D. Walt at (919) 362-2711.

Sincerely,

LSR/lsr

Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Environmental Considerations
4. Page Change Instructions
5. Technical Specification Pages

W. R. Robinson, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are employees, contractors, and agents of Carolina Power & Light Company.

Darlene S. Yarborough
Notary (Seal)

My commission expires: 2-6-2000

DARLENE S. YARBOROUGH NOTARY *** PUBLIC HARNETT COUNTY, NC

c: Mr. Dayne H. Brown / Director, Div. of Radiation Protection (NC)
Mr. S. D. Ebneter / NRC Regional Administrator
Mr. N. B. Le / NRR Project Manager
Mr. D. J. Roberts / NRC Resident Inspector

ENCLOSURE TO SERIAL: HNP-96-025

ENCLOSURE 1

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR EXIGENT LICENSE AMENDMENT
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM (ESFAS) INSTRUMENTATION

BASIS FOR CHANGE REQUEST

Background

Technical Specification (TS) 4.3.2, Engineered Safety Features Actuation System (ESFAS) Instrumentation, requires that each instrumentation channel and interlock and the automatic actuation logic and relays be demonstrated operable by performance of surveillance requirements specified in TS Table 4.3-2. Table 4.3-2, Item 1.a requires that a trip actuating device operational test be performed for Safety Injection manual initiation at least every 18 months. Also, TS 4.3.2 requires that the response time of each ESFAS function be demonstrated to be within limits at least once every 18 months.

In the 4th Quarter of 1995, Carolina Power & Light Company (CP&L) began a systematic review of TS surveillance procedures for the Reactor Protection System, the Emergency Diesel Generator Load Sequencer, and the Engineered Safety Features components. On February 12, 1996, CP&L personnel discovered that Operations Surveillance Tests (OSTs) for testing manual Safety Injection actuation do not completely test all required switch contacts in the required periodicity. OSTs 1825 (Safety Injection: ESF Response Time, Train A) and 1826 (Safety Injection: ESF Response Time, Train B), which are performed on staggered 18-month intervals, test the manual initiation of Safety Injection (SI) and the response time of ESFAS components. In performing OST 1825 (A Train), both A and B Train SSPS inputs from the SI switch on MCB panel A are verified during the actuation testing, and the SSPS Train A input from the SI switch on MCB panel C is verified during the response time testing. The SSPS Train B input from the SI switch on MCB panel C is lifted for this part of the test. Likewise, in performing OST 1826 (B Train), both A and B Train SSPS inputs from the SI switch MCB panel A are tested, and the SSPS Train B input from the SI switch on MCB panel C is tested. The SSPS Train A input from the SI switch on MCB panel C is lifted for this part of the test. Therefore, the A and B Train SSPS inputs from the SI switch on the MCB panel C have not been tested every 18 months as required by the TS.

OST 1825 was last performed on October 5, 1995 and OST 1826 was last performed on May 2, 1994. Accordingly, the B input from the SI switch will become inoperable on March 16, 1996 because the 18-month surveillance requirement will not be met. Contact testing cannot be performed at power because of the risk of causing plant transients. Testing at power would require blocking the manual SI input to both trains from this switch. Because both panel A and C switch contacts feed the same terminal in the SSPS logic cabinet, lifting leads would also cause the MCB panel A manual switch to be inoperable. Therefore, a plant shutdown to Mode 5 would be required in order to comply with the TS surveillance requirements.

Proposed Change

The proposed amendment would annotate with an asterisk the "R" periodicity for the Trip Actuating Device Operational Test for Item 1.a (Safety Injection-Manual Initiation) in TS Table 4.3-2. A corresponding note would be added to that TS page to specify that the SSPS Train B input from the MCB panel C SI switch will be tested before reactor startup from Refueling Outage No. 7, or when the plant is in Mode 5 for at least 72 hours, whichever occurs first. This is a one-time change.

Basis

The redundant SSPS trains at the Harris Nuclear Plant are designed for automatic ESF acuation. Redundant manual switches on the MCB also provide operators with manual ESF actuation if the automatic initiation fails or in anticipation of an automatic signal. One switch is on MCB panel A and the other is on MCB panel C. Each switch provides input to both trains (a total of four contacts) of the Solid State Protection System (SSPS).

This proposed one-time license amendment in no way affects the automatic ESFAS initiation. This change only pertains to the panel C switch, and specifically, the B Train SSPS contact. Should this switch become inoperable or fail for any reason, operators would use the redundant switch on panel A.

General Design Criterion (GDC) 21 (Protection System Reliability and Testability) requires that "no single failure results in loss of the protection function ." If it is assumed that the SSPS Train B input from MCB panel C is INOPERABLE and a failure of the switch on MCB panel A occurs, the Train A protection function is still available from the SSPS Train A input from the switch on MCB panel C.

ENCLOSURE 2

SHEARON HARRIS NUCLEAR POWER PLANT
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10 CFR 50.92 EVALUATION

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. Carolina Power & Light Company has reviewed this proposed license amendment request and determined that its adoption would not involve a significant hazards determination. The bases for this determination are as follows:

Proposed Change

The proposed amendment would annotate with an asterisk the "R" periodicity for the Trip Actuating Device Operational Test for Item 1.a (Safety Injection-Manual Initiation) in TS Table 4.3-2. A corresponding note would be added to that TS page to specify that the SSPS Train B input from the MCB panel C SI switch will be tested before reactor startup from Refueling Outage No. 7, or when the plant is in Mode 5 for at least 72 hours, whichever occurs first. This is a one-time change.

Basis

This change does not involve a significant hazards consideration for the following reasons:

1. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed amendment does not involve any design or material changes to the plant. The change does not in any way affect the automatic ESFAS initiation; it only affects one of the two redundant switches. If one switch fails to function, operators can use the other switch. This change simply requests a one-time extension for the surveillance interval for one of two contacts from the manual Safety Injection switch on Main Control Board panel C. A redundant switch is available with two operable contacts on Main Control Board panel A.

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

   The proposed amendment does not alter the performance of the Engineered Safety Features Actuation System. The proposed change does not involve any new equipment or modifications to existing plant equipment. Further, the change will not affect the manner in which any safety related systems perform their functions. Extension of the surveillance frequency of the manual SI actuation switch does not affect or create any new accident scenarios. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed amendment does not involve a significant reduction in the margin of safety.

The proposed change does not affect a margin of safety as defined in the Bases to the Technical Specifications. The automatic ESFAS is not affected by this one-time technical specification change. The change does not alter the setpoints for any plant parameters that initiate safety injection, nor does it alter any coincidental logic. Sufficient system functional capability is still available from diverse parameters.

ENCLOSURE 3

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM (ESFAS) INSTRUMENTATION

ENVIRONMENTAL CONSIDERATIONS

10 CFR 51.22(c)(9) provides criterion for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (3) result in a significant increase in individual or cumulative occupational radiation exposure. Carolina Power & Light Company has reviewed this request and determined that the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the amendment. The basis for this determination follows:

Proposed Change

The proposed amendment would annotate with an asterisk the "R" periodicity for the Trip Actuating Device Operational Test for Item 1.a (Safety Injection-Manual Initiation) in TS Table 4.3-2. A corresponding note would be added to that TS page to specify that the SSPS Train B input from the MCB panel C SI switch will be tested before reactor startup from Refueling Outage No. 7, or when the plant is in Mode 5 for at least 72 hours, whichever occurs first. This is a one-time change.

Basis

The change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) for the following reasons:

1. As demonstrated in Enclosure 2, the proposed amendment does not involve a significant hazards consideration.

2. The proposed amendment does not result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

   The proposed change does not involve any new equipment, or require existing systems to perform a different type of function than they are currently designed to perform. The change does not introduce any new effluents or increase the quantity of existing effluents. As such, the change can not affect the types or amounts of any effluents that may be released offsite.

3. The proposed amendment does not result in a significant increase in individual or cumulative occupational radiation exposure.

The proposed change will not result in any physical plant changes or new surveillances. Extending the surveillance interval for a switch contact can have no impact on radiation exposure. Therefore, the amendment has no affect on either individual or cumulative occupational radiation exposure.