PRIORITY 1
(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9504060095 DOC.DATE: 95/03/30 NOTARIZED: YES DOCKET #
FACIL:50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
ROBINSON,W.R. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to license NPF-63,revising EDG SR contained in Section 4.8.1.1.2 to be consistent w/NUREG-1431 new std TS for Westinghouse plants & eliminating need for duplicate EDG testing being performed.

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 9+9
TITLE: OR Submittal: General Distribution

NOTES:Application for permit renewal filed. 05000400

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 LA	1	1	PD2-1 PD	1	1
	LE,N	1	1			
INTERNAL:	ACRS	6	6	FILE CENTER 01	1	1
	NMSS/DWM/LLDP	2	2	NRR/DRCH/HICB	1	1
	NRR/DSSA/SPLB	1	1	NRR/DSSA/SRXB	1	1
	NUDOCS-ABSTRACT	1	1	OGC/HDS2	1	0
EXTERNAL:	NOAC	1	1	NRC PDR	1	1

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 504-2083) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 19 ENCL 18

PRIORITY 1 DOCUMENT

AA

CP&L

Carolina Power & Light Company
PO Box 165
New Hill NC 27562

William R. Robinson
Vice President
Harris Nuclear Plant

MAR 3 0 1995

Letter Number: HO-950077

SERIAL: HNP-95-023
10 CFR 50.90

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 LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company (CP&L) hereby requests a revision to the Technical Specifications (TS) for the Shearon Harris Nuclear Power Plant (SHNPP). The proposed amendment revises the Emergency Diesel Generator (EDG) Surveillance Requirements contained in Section 4.8.1.1.2 to be consistent with NUREG-1431, the new Standard Technical Specifications for Westinghouse Plants, and to eliminate the need for duplicate EDG testing already being performed to satisfy the requirements of the Station Blackout Rule and the Maintenance Rule. The elimination of redundant EDG testing will reduce the overall wear and stress on the engines and thus result in an increase in long term engine reliability.

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 for incorporating the proposed revision.

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.

9504060095 950330
PDR ADOCK 05000400
P PDR

A001

CP&L requests approval of the proposed amendment by August 14, 1995. In order to allow time for procedure revisions and orderly incorporation into copies of the Technical Specifications, CP&L requests that the proposed amendment, once approved by the NRC, be issued such that implementation will occur within 60 days of issuance of the amendment.

Please refer any questions regarding this submittal to Mr. D. C. McCarthy at (919) 362-2100.

Sincerely,

W. R. Robinson
Vice President
Harris Nuclear Plant

MV

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 officers, 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
Mr. S. D. Ebneter
Mr. N. B. Le
Mr. S. A. Elrod

ENCLOSURE 1
SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

BASIS FOR CHANGE REQUEST

Background

The Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (58 FR 39132), dated July 22, 1993, provides specific criteria for the content of Technical Specifications (TS). The Final Policy Statement specifically recognizes that:

> "The purpose of Technical Specifications is to impose those conditions or limitations upon reactor operation necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety by identifying those features that are of controlling importance to safety and establishing on them certain conditions of operation which cannot be changed without prior Commission approval."

The Final Policy Statement references NUREG-1431, "Standard Technical Specifications, Westinghouse Plants" and encourages licensees to implement a program to upgrade their TSs consistent with the purpose stated above. In addition, the Commission has also indicated a willingness to entertain requests to adopt portions of the improved Standard Technical Specifications (STS) as line-item improvements.

TS 4.8.1.1.2, Electrical Power Systems - A.C. Sources, provides surveillance requirements that demonstrate the operability of the Emergency Diesel Generators (EDG). The proposed amendment will revise this specification (4.8.1.1.2) to be consistent with NUREG-1431 and will also eliminate the need for redundant EDG testing that has been implemented to satisfy the requirements of the Station Blackout Rule and the Maintenance Rule. The elimination of unnecessary EDG testing will reduce the overall wear and stress on the engines and thus result in an increase in long term engine reliability.

Proposed Change

The proposed amendment revises TS surveillance requirement 4.8.1.1.2. as follows:

Surveillance requirement 4.8.1.1.2.e will be changed by deleting the words "in less than or equal to 60 seconds," following the words "loaded to an indicated 6200 - 6400*** kW." This change would allow for the elimination of the present testing that loads the EDG to test load (6.2 to 6.4 MW) in 60 seconds or less. This "rapid-loading" unnecessarily produces high thermal stresses in the engine pistons, cylinder liners and cylinder heads, and contributes to accelerated wear of these and other engine components. The EDG's ability to start and load rapidly is adequately demonstrated by 18-month surveillance testing performed to satisfy surveillance requirement 4.8.1.1.2.f.6.b, which verifies that the EDG starts on an auto-start signal, energizing the emergency buses with permanently connected loads in less than or equal to 10 seconds, energizing the auto-connected emergency (accident) loads through the sequencing timers, and operates for greater than or equal to 5 minutes, while maintaining steady-state voltage and frequency at 6900 $\pm$690 volts and 60 $\pm$1.2 Hz. This change is consistent with the requirements of NUREG-1431 and Revision 3 of Regulatory Guide 1.9.

Surveillance requirement 4.8.1.1.2.f.1. will be deleted. This specification currently requires EDG inspections every 18 months in accordance with procedures prepared in conjunction with TDI Owners Group recommendations. By committing to and implementing an EDG reliability program that satisfies the requirements of the Station Blackout Rule and the Maintenance Rule, SHNPP will continue to ensure that target EDG reliability and availability is being achieved by conducting appropriate monitoring, testing, and maintenance activities. This program will be developed and controlled as a Plant Operating Manual procedure and will incorporate industry, vendor, and TDI Owners Group recommendations. It will however, be bounded by the regulations and guidance of the Station Blackout and Maintenance Rules, thus eliminating the need for redundant TS required surveillance testing. This change is consistent with the test and inspection requirements of NUREG-1431.

Surveillance requirement 4.8.1.1.2.f.6.c will be changed by deleting the word "upon" and inserting the phrase "on a simulated or actual" and will relocate the requirement to page 3/4 8-9 as item 4.8.1.1.2.f.13. The new specification (4.8.1.1.2.f.13) will read: "Verifying that all diesel trips, except engine overspeed, loss of generator potential transformer circuits, generator differential, and emergency bus differential are automatically bypassed on a simulated or actual loss of offsite power signal in conjunction with a safety injection signal." The addition of the wording "on a simulated or actual," will more clearly establish the ability to perform the trip-bypass testing by utilizing a "simulated" loss of off-site power or safety injection test signal.

Surveillance requirement 4.8.1.1.2.f.7 will be changed by deleting the last sentence. This will allow the EDG "hot re-start" testing to be separated from the 24-hour "endurance" test and the automatic load sequencing test. The "hot re-start" test will be performed in accordance with a newly established requirement 4.8.1.1.f.14. The present "hot re-start" test is completed in conjunction with and following the 24-hour "endurance" test run and requires automatic starting and sequencing of safety loads onto the EDG. The combination of these testing requirements is not needed to adequately verify the EDGs "hot re-start" capabilities. The "hot re-start" test requirements of NUREG-1431, item 3.8.1.15 will be incorporated as surveillance requirement 4.8.1.1.2.f.14. This will adequately demonstrate the EDG's ability to start and accelerate to no-load conditions. Proper load sequencing will continue to be demonstrated by the performance of surveillance tests required by 4.8.1.1.2.f.4 and 4.8.1.1.2.f.6. This separation of testing requirements will provide additional scheduling flexibility during refueling outages while maintaining the same level of testing to demonstrate adequate EDG operability. This change will combine the requirements of NUREG-1431, item 3.8.1.15 and the current SHNPP TS requirements in that it requires the EDG to have operated at 6200-6400 kW for at least one hour, or until operating temperature has stabilized, prior to the 5-minute hot re-start test.

Surveillance requirement 4.8.1.1.2.f.8. will be deleted. This surveillance requirement presently verifies that auto-connected loads do not exceed the continuous rating of the EDG. The Station Blackout and Maintenance Rules require reliability monitoring and testing programs to ensure that the EDG is capable of satisfying its intended safety function. Within these requirements is the necessity to maintain the design calculated loads at or below the rating of the EDG. These design load values are maintained in formal site design calculation documentation. Testing and subsequent evaluation of the engines' performance will continue to be performed to verify the proper operation of the EDGs. This testing, combined with the programmatic controls currently in place to ensure EDG design configuration control, will provide commensurate assurance that the auto-connected loads will not exceed the continuous rating of the EDGs. The deletion of this requirement is consistent with NUREG-1431 and will allow for the elimination of redundant EDG

testing.

Surveillance requirement 4.8.1.1.2.f.10 will be deleted. This surveillance requirement presently verifies that the EDG will not start when a non-bypassed trip condition exists or when locked out by the selection of Maintenance Mode. The Station Blackout and Maintenance Rules require reliability monitoring and testing programs to ensure that the EDG is capable of satisfying its intended safety function. One of these functions is to shutdown when a non-bypassed trip condition is received and to remain locked out from any start signal. Thus, monitoring and testing to verify system/subsystem functions is within the scope of these programs and inclusion of this requirement in TS is an unnecessary duplication. This deletion is also consistent with NUREG-1431.

A new "hot re-start" surveillance requirement (4.8.1.1.2.f.14) will be added to TS Section 4.8.1.1.2.f. The present "hot re-start" test is included as a portion of surveillance requirement 4.8.1.1.2.f.7. and is completed in conjunction with and following the 24-hour "endurance" test run and requires automatic starting and sequencing of safety loads onto the EDG. The combination of these testing requirements is not needed to adequately verify the EDG's "hot re-start" capabilities. The "hot re-start" test requirements of NUREG-1431, item 3.8.1.15 will be incorporated as surveillance requirement 4.8.1.1.2.f.14. Specific details are contained in the previous paragraph describing the proposed change to SR 4.8.1.1.2.f.7.

Conclusions

The proposed changes to surveillance requirement 4.8.1.1.2 will revise the specification to be consistent with NUREG-1431 and will eliminate the need for redundant EDG testing that has been implemented to satisfy the requirements of the Station Blackout Rule and the Maintenance Rule. The elimination of unnecessary EDG testing will reduce the overall wear and stress on the engines and thus result in an increase in long term engine reliability. The proposed change will also provide additional testing and maintenance scheduling flexibility during refueling outages by separating the 24-hour "full-load" test run, the automatic start and load sequencing test, and the 5-minute "hot re-start" test, into three separate test functions.

ENCLOSURE 2

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

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
Technical Specification (TS) 4.8.1.1.2, Electrical Power Systems - A.C. Sources, provides surveillance requirements that demonstrate the operability of the Emergency Diesel Generators (EDG). The proposed amendment will revise this specification to be consistent with NUREG-1431 and will also eliminate the need for redundant EDG testing that has been implemented to satisfy the requirements of the Station Blackout Rule and the Maintenance Rule. The elimination of unnecessary EDG testing will reduce the overall wear and stress on the engines and thus result in an increase in long term engine reliability.

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.

   A failure of the Emergency Diesel Generator (EDG) is not an initiator for any previously evaluated FSAR Chapter 15 accident scenario. By committing to and implementing an EDG reliability program that satisfies the requirements of the Station Blackout Rule and the Maintenance Rule, the Shearon Harris Nuclear Power Plant (SHNPP) will continue to ensure that target EDG reliability and availability is being achieved by conducting appropriate monitoring, testing, and maintenance activities. This program will be developed and controlled as a Plant Operating Manual procedure and will incorporate industry, vendor, and TDI Owners Group recommendations. Therefore, with commensurate levels of testing and inspection in place to provide assurance that the EDGs will perform their intended safety function in the event of an accident, the proposed changes will have no effect on the probability or consequences of such an accident.

ENCLOSURE 2

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

10 CFR 50.92 EVALUATION (Cont.)

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

A failure of the EDG is not an initiator for any previously evaluated FSAR Chapter 15 accident scenario nor would the proposed changes to the EDG surveillance requirements result in the possibility of a new or different kind of accident from any accident previously evaluated. By committing to and implementing an EDG reliability program that satisfies the requirements of the Station Blackout Rule and the Maintenance Rule, SHNPP will continue to ensure that target EDG reliability and availability is being achieved by conducting appropriate monitoring, testing, and maintenance activities. This program will be developed and controlled as a Plant Operating Manual procedure and will incorporate industry, vendor, and TransAmerica Delaval Inc. Owners Group recommendations. Therefore, with commensurate levels of testing and inspection in place to provide assurance that the EDGs will perform their intended safety function in the event of an accident, the proposed changes would not increase 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 changes will not affect any parameters which relate to the margin of safety as defined in the Technical Specifications or the FSAR. Testing, inspection and maintenance necessary to verify the EDGs' ability to perform their intended safety function will continue to be performed. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

ENCLOSURE 3

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

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 off-site; (3) result in an 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

Technical Specification 4.8.1.1.2, Electrical Power Systems - A.C. Sources, provides surveillance requirements that demonstrate the operability of the Emergency Diesel Generators (EDG). The proposed amendment will revise this specification to be more consistent with NUREG-1431 and will also eliminate the need for duplicate EDG testing that has been implemented to satisfy the requirements of the Station Blackout Rule and the Maintenance Rule. The elimination of unnecessary EDG testing will reduce the overall wear and stress on the engines and thus result in an increase in long term engine reliability.

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 off-site.

   The proposed amendment does not introduce any new equipment, nor does it require existing systems to perform a different type of function than they are currently designed to perform. As such, the change can not affect the types or amounts of any effluents that may be released off-site.

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

   The proposed change will not result in any additional EDG testing or maintenance activities that could result in additional radiation dose accumulation and will, therefore, have no affect on either individual or cumulative occupational radiation exposure.

ENCLOSURE 4

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400/LICENSE NO. NPF-63
REQUEST FOR LICENSE AMENDMENT
EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

PAGE CHANGE INSTRUCTIONS

Removed Page	Inserted Page
3/4 8-6	3/4 8-6
3/4 8-7	3/4 8-7
3/4 8-8	3/4 8-8
3/4 8-9	3/4 8-9