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ACCESSION NBR: 8802050151 DOC. DATE: 88/02/01 NOTARIZED: YES DOCKET #
FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
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SUBJECT: Application for amend to License NPF-63, revising Tech Specs (see REPS) to allow for efficient fuel designs & provide max operational flexibility for routine & nonroutine plant operations in suport of Cycle 2 operation. Fee paid.

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CP&L
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Operations Support

SERIAL: NLS-88-023
10CFR50.90

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
CYCLE 2 OPERATION

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 revision to the Technical Specifications for the Shearon Harris Nuclear Power Plant.

It is Carolina Power & Light Company's objective to operate SHNPP in the safest and most efficient manner possible. To achieve this objective, we are requesting a number of Technical Specification changes designed to allow for efficient fuel designs and to provide maximum operational flexibility to respond to both routine and non-routine plant operations.

This submittal contains four (4) groups of Technical Specification changes that are required to support Harris Cycle 2. These groups are entitled: (1) D-Bank Reconfiguration; (2) F_Q^T Increase From 2.28 to 2.32 - RAOC/Base Load Operation and FQ Surveillance; (3) Increased F-Delta-H Multiplier; and (4) Miscellaneous. In addition, a Bases change involving Rod Bow Penalty has been made.

Group 1 relates to those changes arising from CP&L's change from a four rod D-Bank currently present, to a more standard eight rod D-Bank configuration. The current four rod D-Bank

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was designed to facilitate operation of a load follow unit at the expense of flexibility in core design due to the deeper allowed rod insertion. Since SHNPP will be essentially base load operated, it is desirable to return to a more standard eight rod D-Bank.

Groups 2 and 3 provide a series of changes designed to accommodate a smooth transition from the initial cycle to reload cycle designs which achieve the efficiency and operational flexibility consistent with the Company's operating objectives. The changes include utilizing an improved operating and thermal limit monitoring strategy, supporting a higher limit on the total core peaking factor, and allowing a greater F-Delta-H limit at reduced power levels. Group 4 deals with changing a surveillance frequency from a calendar day basis to an Effective Full Power Day basis, and with a modification to the fuel assembly description to allow for assembly repair.

Enclosures 1 through 4 address each Technical Specification group independently. Each enclosure has three sections. The first provides a detailed description of the proposed changes and the basis for the changes; the second, a significant hazards analysis; and the third, the revised Technical Specification pages. Enclosure 5 provides a discussion of the Rod Bow Penalty Bases change for your information. Enclosure 6 consists of a composite set of revised Technical Specification pages from Enclosures 1 through 5.

In accordance with the requirements of 10CFR170.12, a check for $150 is also enclosed.

In order to avoid any delays in the outage and to allow time for procedure revision and orderly incorporation into copies of the Technical Specifications, CP&L requests that the proposed amendments be issued by June 1, 1988. The Company will incorporate the Rod Bow Penalty Bases change upon initial criticality for SHNPP Cycle 2 operation.

Please refer any questions regarding this submittal to Mr. David C. McCarthy at (919) 836-7715.

Yours very truly,

L. W. Eury

LWE/MAT

Enclosures:

1. D-Bank Reconfiguration
2. F_Q^T Increase From 2.28 to 2.32 - RAOC/Base Load Operation and FQ Surveillance
3. Increased F-Delta-H Multiplier
4. Miscellaneous
5. Reduced Rod Bow Penalty Bases Change
6. Comprehensive Package of Technical Specification Pages

cc: Mr. Dayne H. Brown w/a
Dr. J. Nelson Grace w/a
Mr. G. F. Maxwell w/a
Mr. B. C. Buckley w/a

L. W. Eury, 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.

Lisa M. Randall
Notary (Seal)

My commission expires: 5-18-88

LISA RANDALL NOTARY PUBLIC WAKE COUNTY, N.C.

ENCLOSURE 1
SECTION 1

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400
OPERATING LICENSE NPF-63
REQUEST FOR LICENSE AMENDMENT

BASIS FOR CHANGE REQUEST
D-BANK RECONFIGURATION - CONTROL ROD INSERTION LIMITS

Proposed Change

The proposed amendment revises Technical Specification Figure 3.1-1, Rod Group Insertion Limits Versus Thermal Power Three-Loop Operation as shown on the enclosed revised Technical Specification pages.

Basis

The proposed change to the Rod Group Insertion Limits results from a modification to be performed on the SHNPP lead control bank (Control Bank D) during the upcoming refueling outage. Currently, Control Bank D consists of four Rod Cluster Control Assemblies (RCCAs) located near the core periphery. This design was provided to enhance load following operation, however, it makes core management difficult when moving toward low leakage fuel designs. SHNPP Cycle 2 operation will be based on a reduced leakage loading pattern. Most of the fresh fuel will be loaded toward the center of the core. With the RCCAs located near the core periphery, peaking factors in the fresh fuel can become large when the four cluster D Bank is inserted. Power peaking in the fresh fuel will be reduced by reconfiguration of Control Bank D. Four RCCAs, which originally composed Shutdown Bank D, will be added to Control Bank D. This results in an eight rod lead control bank distributed more uniformly throughout the core. This eight rod Control Bank D configuration is identical with generic Westinghouse 3-loop 17 x 17 plants including V. C. Summer, J. M. Farley Units 1 and 2, and Beaver Valley Units 1 and 2.

The addition of rods to Control Bank D increases the reactivity worth of the control bank. Consequently, a revision in the rod group insertion limits shown on Technical Specification Figure 3.1-1 is necessary. The rod insertion limits ensure that acceptable power distribution limits are maintained, minimum shutdown margin is maintained, and the potential effects of rod misalignment on associated accident analyses are limited.

An evaluation was performed to determine the effect the eight rod Control Bank D configuration and the associated revised rod insertion

limits will have on the FSAR accident analyses. This evaluation takes into account the Relaxed Axial Offset Control and F-Delta-H changes discussed in Enclosures 2 and 3 respectively. The results of the evaluation indicate that operation with the revised rod insertion limits will maintain shutdown margin, trip reactivity, power distribution limits, ejected and dropped rod worths, post-ejected rod peaking factor, and differential and integral rod worth within the values assumed in the SHNPP FSAR non-LOCA safety analyses. Therefore, the conclusions of the non-LOCA analyses presented in the SHNPP FSAR remain valid.

Control rods are not modeled in the Large Break LOCA analysis. No credit is taken for them in mitigation of the accident in terms of the Peak Clad Temperature calculation nor in terms of reactivity for the long term core subcriticality determination. As such, the Control Bank D reconfiguration and revised rod insertion limits have no effect on the Large Break LOCA analysis presented in the SHNPP FSAR.

Rod insertion is modeled in the Small Break LOCA analysis. However, the analysis assumes a reactor trip and rod insertion of all banks. The Control Bank D modification does not in any way effect the scram functions of the affected RCCAs. Therefore, the assumption made in the Small Break LOCA analysis is not affected by the Control Bank D reconfiguration or the associated revised rod insertion limits. As such, the Small Break LOCA analysis presented in the SHNPP FSAR remains valid.

ENCLOSURE 1
SECTION 2

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400
OPERATING LICENSE NPF-63
REQUEST FOR LICENSE AMENDMENT

10CFR50.92 EVALUATION
D-BANK RECONFIGURATION - CONTROL ROD INSERTION LIMITS

The Commission has provided standards in 10CFR50.92(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 consideration. The bases for this determination are as follows:

Proposed Change

The proposed amendment revises Technical Specification Figure 3.1-1, Rod Group Insertion Limits Versus Thermal Power Three-Loop Operation as shown on the enclosed revised Technical Specification pages.

Basis

The 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 revised rod insertion limits provided in Technical Specification Figure 3.1-1 were established to ensure that: (1) acceptable power distributions are maintained during normal operation; (2) shutdown margin is maintained; and (3) the accident analyses conclusions provided in the SHNPP FSAR remain valid. As such, the consequences of previously evaluated accidents are not significantly increased by the proposed amendment.

The proposed amendment affects only rod insertion limits and does not alter the method in which any safety related system performs its intended function. The Control Bank D modification does not in any way affect the scram functions of the affected RCCAs. As such, this change does not significantly increase the probability of any previously evaluated accidents.

2. As stated in Item 1, revising the rod insertion limits in Technical Specification Figure 3.1-1 does not alter the method in which any system performs its intended safety function. Therefore, the proposed amendment does 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. An evaluation was performed to determine the effect the proposed change will have on the FSAR accident analyses. The results of the evaluation indicate that operation with the revised rod insertion limits will ensure that: (1) acceptable power distributions are maintained during normal operation; (2) shutdown margin is maintained; and (3) the accident analyses conclusions provided in the SHNPP FSAR remain valid. The safety limits continue to be met; therefore, the margin of safety is not significantly decreased by the proposed amendment.

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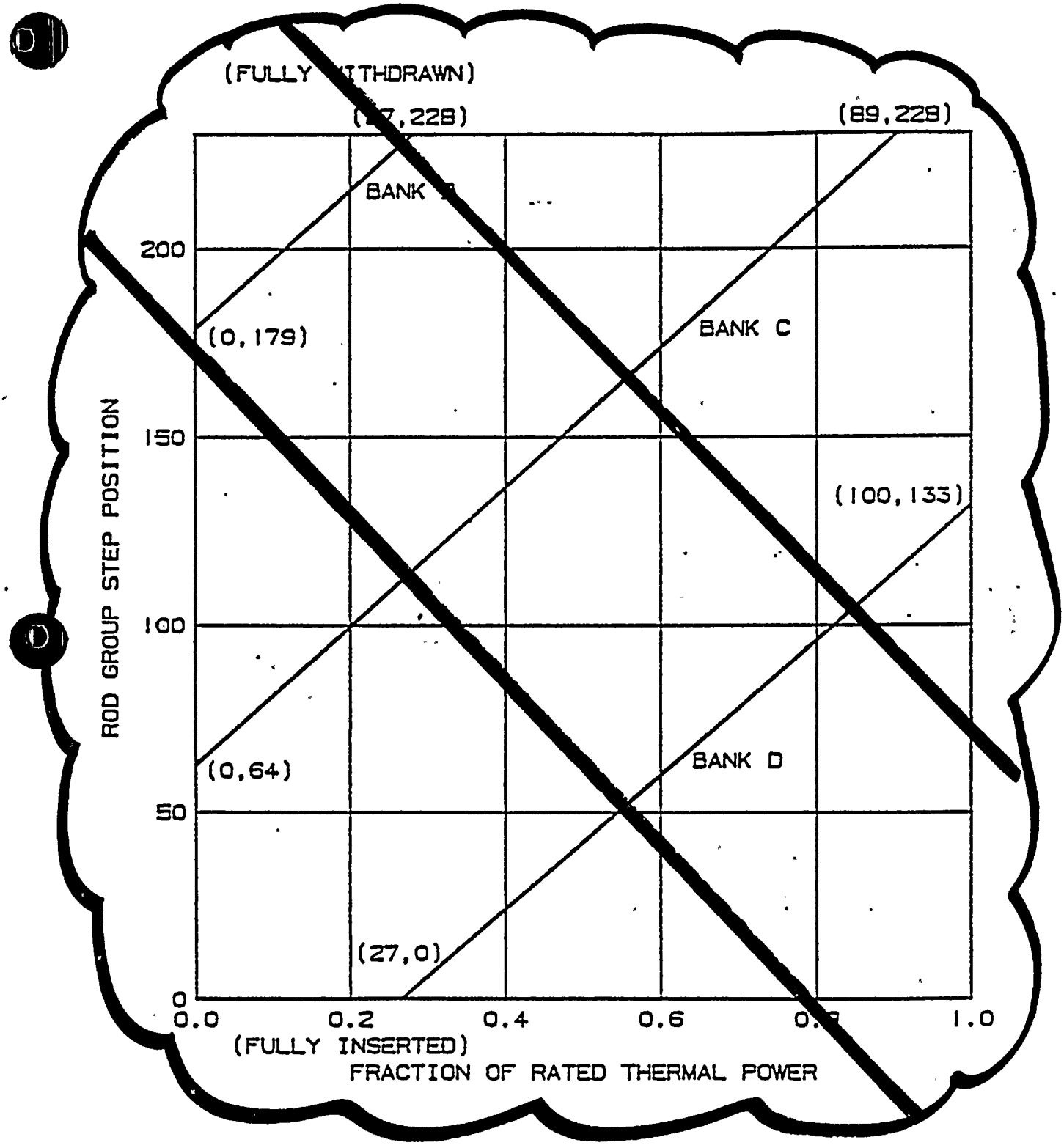

FIGURE 3.1-1

ROD GROUP INSERTION LIMITS VERSUS THERMAL POWER THREE-LOOP OPERATION

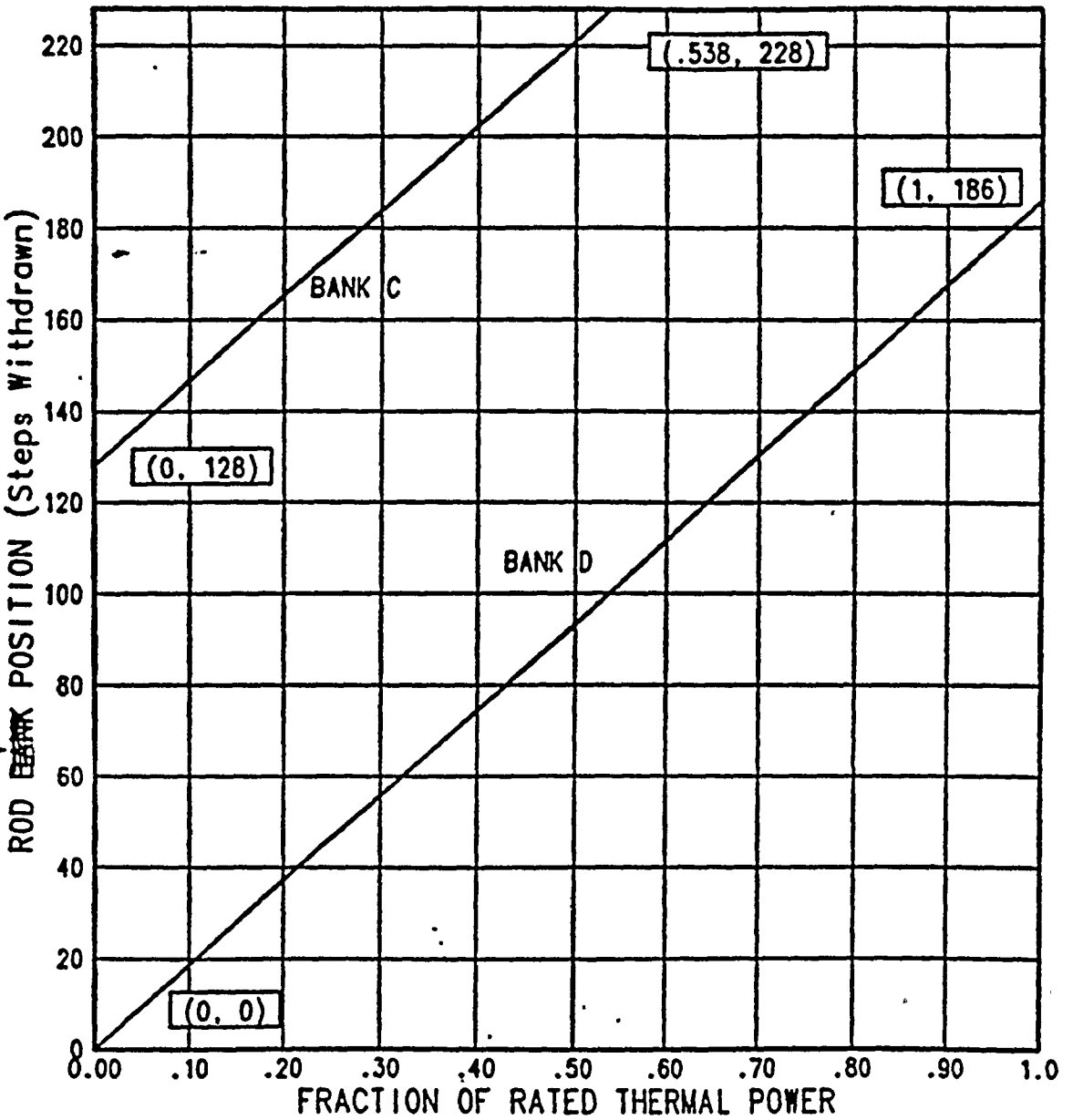

FIGURE 3.1-1

ROD GROUP INSERTION LIMITS VERSUS THERMAL POWER

THREE-LOOP OPERATION

ENCLOSURE 2
SECTION 1

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400
OPERATING LICENSE NPF-63
REQUEST FOR LICENSE AMENDMENT

BASIS FOR CHANGE REQUEST
F_Q^T INCREASE FROM 2.28 TO 2.32,
RAOC/BASE LOAD OPERATION, AND F_Q SURVEILLANCE

Proposed Change

The proposed changes involve: (1) increasing the Heat Flux Hot Channel Factor, F_Q^T, in Technical Specification 3.2.2; (2) revising the Local Axial Penalty Function, K(z), in Technical Specification Figure 3.2-2; (3) replacing the existing Constant Axial Offset Control (CAOC) procedures of Technical Specification Section 3/4.2.1 with a combined Relaxed Axial Offset Control (RAOC)/Base Load operating strategy; (4) replacing the existing F_{xy} surveillance of Technical Specification 4.2.2.1 with a F_Q surveillance; (5) revising f(ΔI) reset function in Technical Specification Table 2.2-1; and (6) revising Technical Specification 6.9.1.6, which delineates the content and schedule requirements of the Radial Peaking Factor Limit Report. F_Q surveillance requirements in combination with RAOC/Base Load operations have been approved by the NRC for other operating units such as McGuire Units 1 and 2 and Catawba Units 1 and 2.

Basis

The Heat Flux Hot Channel Factor, F_Q^T (total peaking factor), is the ratio of maximum local power generation to average power in the core. Currently, Technical Specification 3.2.2 limits this value to 2.28 at 100% of rated thermal power increasing to 4.56 when reactor power is less than or equal to 50% of rated thermal power. The proposed change increases these limits to 2.32 and 4.64 respectively. The higher F_Q^T limits allow greater operational flexibility. The SHNPP FSAR accident analyses presented for non-LOCA, overpower transients and Small Break LOCA assumed an F_Q^T limit of 2.32 or greater, which bounds the proposed values. The Large Break LOCA event has been reanalyzed by Westinghouse using the BASH computer code. The BASH computer code provides a more realistic thermal/hydraulic simulation of the reactor core and the Reactor Coolant System (RCS) during the reflood phase of a LOCA, thereby allowing the increased F_Q^T limits. The NRC generically approved the Westinghouse BASH analysis methods as WCAP-10266, Revision 2. Westinghouse's Large Break LOCA reanalysis supports the use of the increased F_Q^T limits with the calculated results for peak clad temperature, maximum local metal-water reaction, and total core metal-water reaction well within the acceptance criteria.

Technical Specification Figure 3.2-2 provides the Local Axial Penalty Function, K(z), for $F_Q(z)$. Through application of this penalty term, the limit on measured F_Q is lowered as core height increases. As shown on the markup of Figure 3.2-2, the first two points in the K(z) table are unchanged, while the last two points change slightly due to the fact the third line segment represents a small break LOCA with an F_Q^T of 2.32 while the large break LOCA was based on 2.28.

Axial power distribution control at SHNPP is currently achieved by following the Constant Axial Offset Control (CAOC) operating procedures detailed in Technical Specification Section 3/4.2.1. Reference 1 provides a more detailed discussion of CAOC operating procedures. This procedure requires that the Axial Flux Difference (AFD) be kept within a narrow band (+ or -5% for core average accumulated burnup of less than or equal to 6000 MWD/MTU; and +3%, -12% for core average accumulated burnup of greater than 6000 MWD/MTU for SHNPP Cycle 1) about a target value during normal plant operation, including power change maneuvers. The limits placed on the axial flux difference are designed to assure that the total peaking factor F_Q^T is maintained within acceptable limits which satisfy LOCA and local power requirements. The proposed Technical Specification change replaces the existing CAOC procedures with Relaxed Axial Offset Control (RAOC) procedures (see Reference 2). The RAOC procedures have been approved by the NRC and were developed to provide wider control band widths and, consequently, more operator freedom. These wider limits, particularly at lower power levels, can increase plant availability by allowing quicker plant startups and increased maneuvering flexibility without reactor trip.

The proposed changes to Technical Specification Section 3/4.2.1 allow for further operating flexibility by combining the Base Load CAOC operating strategy with RAOC operating procedures. In the event that unexpectedly high peaking factors would preclude operation at 100% of rated thermal power with the RAOC Technical Specification, Base Load operation could allow full power capability. Base Load operation is restricted to a narrow CAOC band (+ or -3% of the target AFD value) above a predetermined power level, APL^{ND}. The APL^{ND} value for SHNPP Cycle 2 operation will be 85% of rated thermal power. This value will be provided to the NRC in the Radial Peaking Factor Limit Report per Specification 6.9.1.6.

Maximum operating flexibility is achieved by combining RAOC/Base Load operation with an FQ Surveillance Technical Specification (see Reference 2). Currently, Surveillance Requirement 4.2.2.2 requires periodic plant surveillance on the height dependent radial peaking factor, $F_{xy}(z)$, as partial verification that operation will not cause the heat flux hot channel factor, $F_Q(z)$, limit to be exceeded. In the proposed revision to Technical Specification 4.2.2.2, $F_{xy}(z)$ surveillance is replaced by F_Q surveillance. Monitoring $F_Q(z)$ directly provides a more convenient form of assuring plant operation below the $F_Q(z)$ limit while retaining the intent of using a measured parameter to verify Technical Specification compliance. The surveillances provided

in Technical Specification Section 3/4.2.1 provide adequate assurance that AFD is maintained within the specified limits. The FQ Surveillance Technical Specification concept has been approved by the NRC in Reference 2.

The final change involves a change to Technical Specification 6.9.1.6. Technical Specification 6.9.1.6 delineates the content and schedule requirements of the Radial Peaking Factor Limit Report. This specification has been revised to reflect the changes discussed above. In addition, the existing specification requires submittal of the Radial Peaking Factor Limit Report at least 60 days prior to the date the limits would become effective unless otherwise approved by the Commission. The proposed change requires the report to be submitted within 30 days after each cycle initial criticality. As required by Technical Specification 6.9.1.6, the methodology used to generate the limits in this report will have been previously reviewed and approved by the NRC. If changes to these methods which involve an unreviewed safety question or would require an amendment of previously submitted documentation are made, they will be submitted to the NRC for review and approval prior to their use. As such, the change in the submittal date for the Radial Peaking Factor Limit Report is administrative in nature and does not affect the margin of safety.

Core Analysis

The methodology used to generate the AFD limits for RAOC operation is described in detail in Reference 2. Briefly, axial power distributions generated from the one-dimensional code were synthesized with three-dimensional radial power distributions to generate the total peaking factor $F^T_Q(z)$. Using this methodology, the allowable AFD limits for RAOC operation were determined and are presented in Figure 1.

The analysis for the Base Load Option is similar to the standard CAOC analysis. Load follow maneuvers were analytically performed under different operating strategies at different times in core life to establish acceptable operating bands. These maneuvers for the Base Load analysis were restricted to operation at power levels above 85% of rated thermal power with AFD limits of + or -3% about the target value.

The transient axial power distributions generated from the RAOC and Base Load analyses form the basis for the FQ Surveillance requirement of Technical Specification 4.2.2.2. The plant maneuvers assumed in generating the respective power distributions are those that would be allowed in the appropriate mode of operation (RAOC or Base Load). F_Q surveillance defines a cycle and mode dependent function, W(z), which accounts for the increase in local peaking from a steady state condition due to the above operational maneuvers. Thus the steady state measured $F_Q(z)$ as determined during routine flux mapping is increased by W(z) and then compared to the technical specification limit on F^T_Q. These W(z) functions can be generated to cover the entire cycle, but the standard practice is to use burnup dependent W(z) functions to make use of the

available margin. These W(z) functions and the APL^{ND} are all provided in the Radial Peaking Factor Limit Report for each cycle per specification 6.9.1.6.

In addition to the normal operation shapes generated with the RAOC limits, accident shapes were generated at the core limits. These shapes determine the transient power limits which affect the clad stress evaluations. The analysis of these transient power limits show that clad stress is maintained within the yield limits if the negative wing of the f(ΔI) reset function is changed to have an intercept at -25% and a slope of 2.36%/%. This is more restrictive than the negative wing of the reset function necessary to cover the additional power shape envelope generated from RAOC and is therefore, reflected in the Technical Specification changes.

Non-LOCA Analysis

The effect of RAOC on the FSAR safety analyses is seen in the power shape envelope corresponding to the newly defined AFD range. This newly defined power shape envelope forms the basis for the generation of the normal operation axial power distributions assumed in the non-LOCA safety analysis. The new power shape envelope is also used to define the axial offsets that define the f(ΔI) reset function associated with the overtemperature delta-T (OTΔT) and overpower delta-T (OPΔT) setpoints. For the power shape envelope, it must be shown that the DNB design basis is met.

The verification of the DNB design basis is performed within two categories. First, power shapes which could occur at nominal full power conditions are determined. The limiting shapes from this category are used in the analyses which do not rely on the (OTΔT/OPΔT) setpoints for protection. Second, power shapes which could occur at the core limit conditions are determined. The resulting axial offset envelope is then used to determine the magnitude of the f(ΔI) reset function.

The limiting axial power distributions which could occur at nominal full power conditions that are within the new RAOC delta-I (ΔI) bandwidth have been evaluated. It was confirmed that the axial power distribution used as the initial condition in the SHNPP FSAR safety analyses that do not rely on the OTΔT/OPΔT setpoints for protection continue to be valid for operation with RAOC.

The existing (OTΔT/OPΔT) setpoints have been compared to the revised core limits which include the effect of RAOC and the increased F-delta-H Multiplier (discussed in Enclosure 3). It was found that the existing setpoints continue to protect the core limits, and thus events which rely on the (OTΔT/OPΔT) setpoints for protection are not impacted by this change.

The second portion of the non-LOCA evaluation consists of evaluating those power shapes developed at the core limits and defining a

relationship between DI and power level for which the limit on DNB is met. For those power distributions evaluated at less than full power, the revision to the F-delta-H multiplier has been factored into the analyses. The results show that a revised f(DI) reset function is necessary to cover the additional power shapes that are possible under RAOC. The positive wing of the f(DI) reset function has an intercept of +7% and a slope of 1.70%/%. Note that the negative limits discussed previously are more limiting and, therefore, are reflected in the proposed revision to Technical Specification Table 2.2-1.

The results of the evaluation show that the change to RAOC does not impact the existing (OTDT)/OPDT) setpoints (with the exception of the additional restrictions placed on the f(DI) reset function to protect DNB limits), and therefore, the conclusions of the non-LOCA safety analyses presented in the FSAR remain valid.

The purpose of the $F_Q(z)$ Surveillance Technical Specification is the same as the $F_{xy}(z)$ surveillance; to ensure that the operating F_Q is within the design value used in the safety analyses. As long as the $F_Q(z)$ Technical Specification is met, there is no impact on the non-LOCA safety analyses. Adherence to the Technical Specification demonstrates that the conclusions of the non-LOCA analyses presented in the FSAR remain valid.

LOCA Analysis

The ECCS Evaluation Models have been investigated to determine a limiting power shape in conformance with Appendix K to 10 CFR 50. This is the chopped cosine shape for Large Break LOCA and a top-skewed shape (peak at 10.0 ft.) for the Small Break LOCA. These have been justified to be bounding for each specific Evaluation Model for power shapes within a total axial offset. This total axial offset is a limit which is verified to be in compliance for each cycle core design. For the SHNPP cycle 2 analysis, the allowable axial offset range at full power is -20% to +13%. For the addition of RAOC/Base Load at SHNPP, it is concluded that the ECCS analyses are not affected because the 100% power axial offset achieved by the core (see Figure 1) continues to be bounded by the stated range. F_Q surveillance as an operating strategy has no affect on the inputs or assumptions of the ECCS analysis and, therefore, does not affect the results of the existing ECCS analyses.

References

1. T. Morita, etal., "Topical Report-Power Distribution Control and load following procedures," WCAP-8385, September 1974.

2. R. W. Miller, etal., "Relaxation of Constant Axial Offset Control, FQ Surveillance Technical Specification," WCAP-10216-P-A, June 1983.

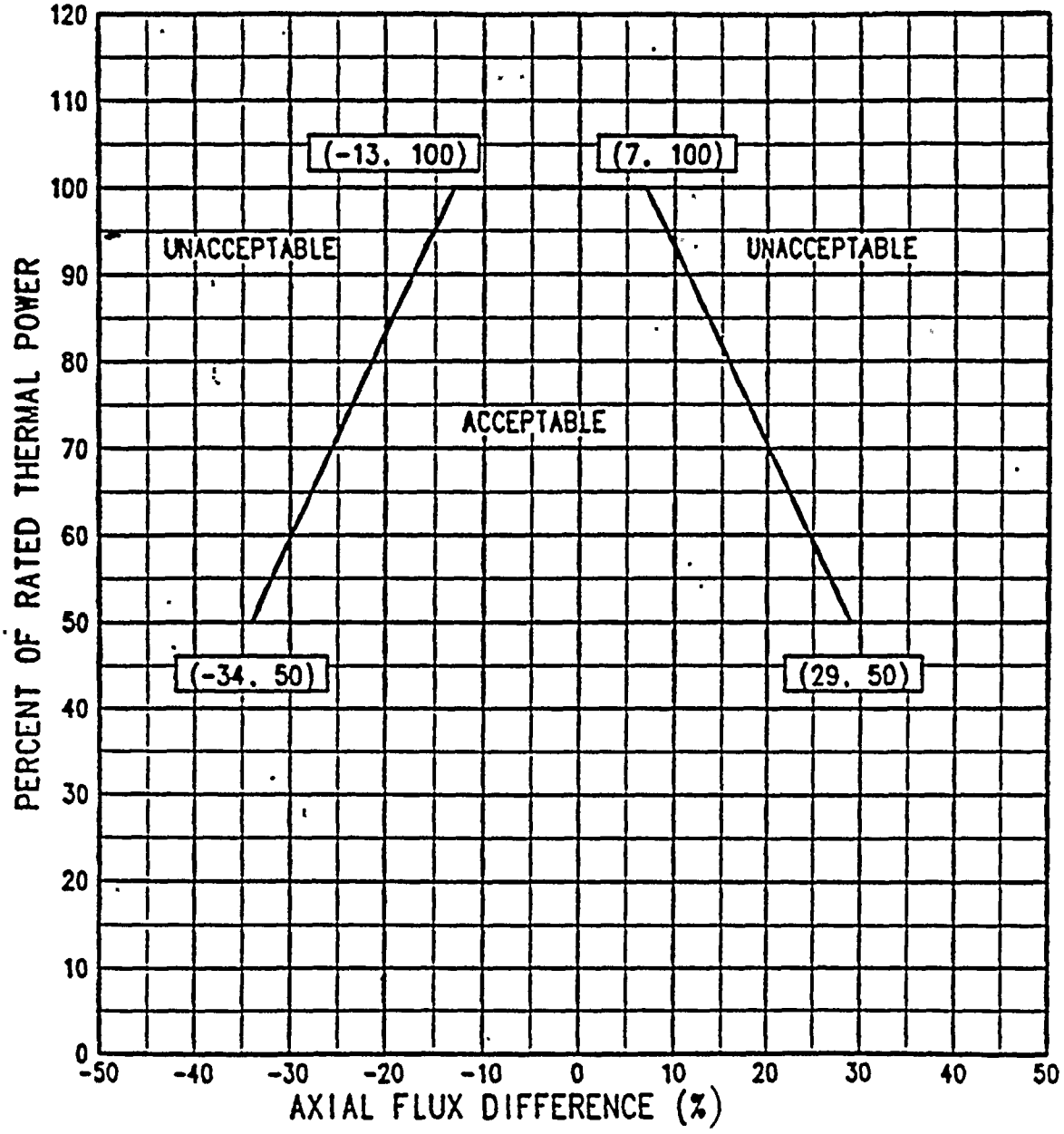

FIGURE 1

AXIAL FLUX DIFFERENCE LIMITS AS A FUNCTION OF RATED THERMAL POWER FOR RAOC

ENCLOSURE 2
SECTION 2

SHEARON HARRIS NUCLEAR POWER PLANT
NRC DOCKET NO. 50-400
OPERATING LICENSE NPF-63
REQUEST FOR LICENSE AMENDMENT

10CFR50.92 EVALUATION
F_Q^T INCREASE FROM 2.28 TO 2.32,
RAOC/BASE LOAD OPERATION, AND F_Q SURVEILLANCE

The Commission has provided standards in 10CFR50.92(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 consideration. The bases for this determination are as follows:

Proposed Change

The proposed changes involve: (1) increasing the Heat Flux Hot Channel Factor, F_Q^T, in Technical Specification 3.2.2; (2) revising the Local Axial Penalty Function, K(z), in Technical Specification Figure 3.2-2; (3) replacing the existing Constant Axial Offset Control (CAOC) procedures of Technical Specification Section 3/4.2.1 with a combined Relaxed Axial Offset Control (RAOC)/Base Load operating strategy; (4) replacing the existing F_{xy} surveillance of Technical Specification 4.2.2.1 with a F_Q surveillance; (5) revising f(ΔI) reset function in Technical Specification Table 2.2-1; and (6) revising Technical Specification 6.9.1.6, which delineates the content and schedule requirements of the Radial Peaking Factor Limit Report.

Basis

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

1. The proposed increase in the F_Q^T limit and the associated change in the K(z) Local Axial Penalty Function do not involve a significant increase in the probability of an accident previously evaluated because they do not affect any systems or equipment which are involved in the initiation or mitigation of any previously analyzed accident and, as such, can not increase the

probability of any accident previously evaluated. The accident analyses for non-LOCA, overpower transients and Small Break LOCA included in the SHNPP FSAR assume a F_Q^T limit which bounds the proposed values. The Large Break LOCA event has been reanalyzed by Westinghouse. This analysis supports the use of the higher limits. Therefore, the consequences of previously evaluated accidents are not significantly increased as a result of the proposed F_Q^T increase.

The proposed amendment to: (1) replace the existing Constant Axial Offset Control (CAOC) procedures with a combined Relaxed Axial Offset Control (RAOC)/Base Load operating strategy; and (2) replace the F_{xy} Surveillance of Technical Specification 4.2.2.1 with a FQ Surveillance does not involve a significant increase in the probability or consequences of an accident previously evaluated. These changes do not adversely affect any systems or equipment which are involved in the initiation or mitigation of any previously analyzed accident and, therefore, the probability of such accidents is not affected. The FSAR safety analyses have been reviewed and it has been determined that the possible power distributions that can result from the proposed changes are bounded by those distributions currently used in the FSAR. The surveillances provided in Technical Specification Section 3/4.2.1 provide adequate assurance that AFD is maintained within the specified limits. The f(ΔI) reset function in Technical Specification Table 2.2-1 has been revised to cover the change in the axial power distribution associated with RAOC operation. This limitation ensures that the DNB limit is preserved. Therefore, the consequences of previously evaluated accidents remain unchanged.

The proposed change to Technical Specification 6.9.1.6 is administrative in nature and, as such, can not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. None of the proposed changes introduce any new equipment or require any existing equipment or systems to perform a different type of function than they are currently designed to perform. The proposed changes provide operation limits and a means to monitor those limits to assure that the consequences of existing accidents are not affected.

3. The proposed amendment does not involve a significant reduction in the margin of safety. The proposed increase in the F_Q^T limit and the associated change in the K(z) Local Axial Penalty Function are bounded by the existing accident analyses for non-LOCA and Small Break LOCA events. A reanalysis of the Large Break LOCA event supports the use of the increased F_Q^T limits with the calculated

results for peak clad temperature, maximum local metal-water reaction, and total core metal-water reaction well within the acceptance criteria.

The margins of safety applicable to the proposed changes to: (1) replace the existing Constant Axial Offset Control (CAOC) procedures with a combined Relaxed Axial Offset Control (RAOC)/Base Load operating strategy; and (2) replace the F_{xy} Surveillance of Technical Specification 4.2.2.1 with a FQ Surveillance are, the limit on peak clad temperature as protected by defining a limit on the total core peaking factor F_Q^T, and the DNB limit. The f(ΔI) reset function in Technical Specification Table 2.2-1 has been revised to cover the envelope of power shapes that are possible under RAOC operation. This limitation ensures that the DNBR limit is preserved. As such, the proposed changes preserve these margins while extending the operating domain bounded by these limits. These changes provide limits and a monitoring method which assures that the available margin to safety is maintained.

The proposed change to Technical Specification 6.9.1.6 is administrative in nature and, as such, can not involve a significant reduction in the margin of safety.