

October 8, 1997

Mr. H. L. Sumner, Jr.
Vice President - Nuclear
Hatch Project
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

SUBJECT: ISSUANCE OF AMENDMENTS - EDWIN I. HATCH NUCLEAR PLANT,
UNITS 1 AND 2 (TAC NOS. M98772 AND M98773)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 210 to Facility Operating License DPR-57 and Amendment No. 151 to Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 9, 1997, as supplemented September 3, 1997.

The amendments revise the applicability requirements for the Rod Block Monitor (RBM) to require that the RBM be operable whenever reactor thermal power is greater than or equal to 29 percent of rated thermal power.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Ngoc B. (Tommy) Le, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 210 to DPR-57
2. Amendment No. 151 to NPF-5
3. Safety Evaluation

DISTRIBUTION

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cc w/encls: See next page

*Based on SER memo from LPhilips to NLe dated 9/ /97

DOCUMENT NAME:G:\HATCH\HAT98772.AMD

OFFICE	DRPE/PD22/PM*	DRPE/PD22/LA	OGC <i>My N20</i>	DRPE/PD22/D
NAME	NB.LE:cn <i>TL</i>	L.BERRY <i>LB</i>	<i>M Young</i>	H.BERKOW <i>H</i>
DATE	9/18/97	9/18/97	9/29/97	10/8/97
COPY	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

October 8, 1997

Mr. H. L. Sumner, Jr.
Vice President - Nuclear
Hatch Project
Southern Nuclear Operating
Company, Inc.
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A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Ngoc B. Le".

Ngoc B. (Tommy) Le, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 210 to DPR-57
2. Amendment No. 151 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

Edwin I. Hatch Nuclear Plant

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 210
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated May 9, 1997, as supplemented September 3, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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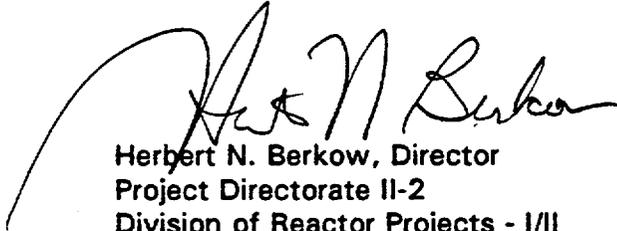
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 210 , are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to Unit 1 startup from the fall 1997 refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: October 8, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 210

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove

Insert

3.3-19

3.3-19

5.0-19

5.0-19

Table 3.3.2.1-1 (page 1 of 1)
Control Rod Block Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	
1. Rod Block Monitor					
a. Low Power Range - Upscale	(a)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7	≤ 115.5/125 divisions of full scale	
b. Intermediate Power Range - Upscale	(b)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7	≤ 109.7/125 divisions of full scale	
c. High Power Range - Upscale	(c)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7	≤ 105.9/125 divisions of full scale	1
d. Inop	(d)	2	SR 3.3.2.1.1	NA	1
e. Downscale	(d)	2	SR 3.3.2.1.1 SR 3.3.2.1.7	≥ 93/125 divisions of full scale	1
2. Rod Worth Minimizer	1(e), 2(e)	1	SR 3.3.2.1.2 SR 3.3.2.1.3 SR 3.3.2.1.5 SR 3.3.2.1.8	NA	1
3. Reactor Mode Switch - Shutdown Position	(f)	2	SR 3.3.2.1.6	NA	1

- (a) THERMAL POWER ≥ 29% and < 64% RTP.
- (b) THERMAL POWER ≥ 64% and < 84% RTP.
- (c) THERMAL POWER ≥ 84%.
- (d) THERMAL POWER ≥ 29%.
- (e) With THERMAL POWER < 10% RTP.
- (f) Reactor mode switch in the shutdown position.

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1) The Average Planar Linear Heat Generation Rate for Specification 3.2.1.
 - 2) The Minimum Critical Power Ratio for Specification 3.2.2.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 - 1) NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," (applicable amendment specified in the COLR).
 - 2) "Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting Amendment No. 157 to Facility Operating License DPR-57," dated September 12, 1988.
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

(continued)

B 3.3 INSTRUMENTATION

B 3.3.2.1 Control Rod Block Instrumentation

BASES

BACKGROUND

Control rods provide the primary means for control of reactivity changes. Control rod block instrumentation includes channel sensors, logic circuitry, switches, and relays that are designed to ensure that the fuel cladding integrity safety limit, and specified fuel design limits are not violated during postulated transients and accidents. During high power operation, the rod block monitor (RBM) provides protection for control rod withdrawal error events. During low power operations, control rod blocks from the rod worth minimizer (RWM) enforce specific control rod sequences designed to mitigate the consequences of the control rod drop accident (CRDA). During shutdown conditions, control rod blocks from the Reactor Mode Switch — Shutdown Position Function ensure that all control rods remain inserted to prevent inadvertent criticalities.

The purpose of the RBM is to limit control rod withdrawal if localized neutron flux exceeds a predetermined setpoint during control rod manipulations. It is assumed to function to block further control rod withdrawal to preclude a violation of the MCPR Safety Limit (SL) or a specified acceptable fuel design limit (SAFDL). The RBM supplies a trip signal to the Reactor Manual Control System (RMCS) to appropriately inhibit control rod withdrawal during power operation above the low power range setpoint. The RBM has two channels, either of which can initiate a control rod block when the channel output exceeds the control rod block setpoint. One RBM channel inputs into one RMCS rod block circuit and the other RBM channel inputs into the second RMCS rod block circuit.

The RBM channel signal is generated by averaging a set of local power range monitor (LPRM) signals at various core heights surrounding the control rod being withdrawn. A signal from one of the four redundant average power range monitor (APRM) channels supplies a reference signal for one of the RBM channels, and a signal from another of the APRM channels supplies the reference signal to the second RBM channel. This reference signal is used to determine which RBM range setpoint (low, intermediate, or high) is enabled. If the APRM is indicating less than the low power range setpoint, the RBM is automatically bypassed. The RBM

(continued)

BASES

BACKGROUND
(continued)

is also automatically bypassed if a peripheral control rod is selected (Ref. 1). A rod block signal is also generated if an RBM Downscale trip or an Inoperable trip occurs. The Downscale trip will occur if the RBM channel signal decreases below the Downscale trip setpoint after the RBM signal has been normalized. The Inoperable trip will occur during the nulling (normalization) sequence, if: the RBM channel fails to null, too few LPRM inputs are available, a module is not plugged in, or the function switch is moved to any position other than "Operate."

The purpose of the RWM is to control rod patterns during startup and shutdown, such that only specified control rod sequences and relative positions are allowed over the operating range from all control rods inserted to 10% RTP. The sequences effectively limit the potential amount and rate of reactivity increase during a CRDA. Prescribed control rod sequences are stored in the RWM, which will initiate control rod withdrawal and insert blocks when the actual sequence deviates beyond allowances from the stored sequence. The RWM determines the actual sequence based position indication for each control rod. The RWM also uses feedwater flow and steam flow signals to determine when the reactor power is above the preset power level at which the RWM is automatically bypassed (Ref. 2). The RWM is a single channel system that provides input into both RMCS rod block circuits.

With the reactor mode switch in the shutdown position, a control rod withdrawal block is applied to all control rods to ensure that the shutdown condition is maintained. This function prevents inadvertent criticality as the result of a control rod withdrawal during MODE 3 or 4, or during MODE 5 when the reactor mode switch is required to be in the shutdown position. The reactor mode switch has two channels, each inputting into a separate RMCS rod block circuit. A rod block in either RMCS circuit will provide a control rod block to all control rods.

(continued)

BASES

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

1. Rod Block Monitor (continued)

effects (for channels that must function in harsh environments as defined by 10 CFR 50.49) are accounted for.

The RBM is assumed to mitigate the consequences of an RWE event when operating $\geq 29\%$ RTP. Below this power level, the consequences of an RWE event will not violate the MCPR SL or the 1% plastic strain design limit; therefore, the RBM is not required to be OPERABLE (Ref. 3).

2. Rod Worth Minimizer

The RWM enforces the banked position withdrawal sequence (BPWS) to ensure that the initial conditions of the CRDA analysis are not violated. The analytical methods and assumptions used in evaluating the CRDA are summarized in References 4, 5, 6, and 7. In addition, the Reference 6 analysis (Generic BPWS analysis) may be modified by plant specific evaluations. The BPWS requires that control rods be moved in groups, with all control rods assigned to a specific group required to be within specified banked positions. Requirements that the control rod sequence is in compliance with the BPWS are specified in LCO 3.1.6, "Rod Pattern Control."

The RWM Function satisfies Criterion 3 of the NRC Policy Statement (Ref. 10).

Since the RWM is a system designed to act as a backup to operator control of the rod sequences, only one channel of the RWM is available and required to be OPERABLE (Ref. 7). Special circumstances provided for in the Required Action of LCO 3.1.3, "Control Rod OPERABILITY," and LCO 3.1.6 may necessitate bypassing the RWM to allow continued operation with inoperable control rods, or to allow correction of a control rod pattern not in compliance with the BPWS. The

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 151
License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 2 (the facility) Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated May 9, 1997, as supplemented September 3, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-5 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 151 are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: October 8, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 151

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove

Insert

3.3-20

3.3-20

5.0-19

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d. Inop	(d)	2	SR 3.3.2.1.1	NA
e. Downscale	(d)	2	SR 3.3.2.1.1 SR 3.3.2.1.7	≥ 93/125 divisions of full scale
2. Rod Worth Minimizer				
	1(e), 2(e)	1	SR 3.3.2.1.2 SR 3.3.2.1.3 SR 3.3.2.1.5 SR 3.3.2.1.8	NA
3. Reactor Mode Switch - Shutdown Position				
	(f)	2	SR 3.3.2.1.6	NA

- (a) THERMAL POWER ≥ 29% and < 64% RTP.
- (b) THERMAL POWER ≥ 64% and < 84% RTP.
- (c) THERMAL POWER ≥ 84%.
- (d) THERMAL POWER ≥ 29%.
- (e) With THERMAL POWER < 10% RTP.
- (f) Reactor mode switch in the shutdown position.

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
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- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 - 1) NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," (applicable amendment specified in the COLR).
 - 2) "Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting Amendment Nos. 151 and 89 to Facility Operating Licenses DPR-57 and NPF-5," dated January 22, 1988.
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

(continued)

B 3.3 INSTRUMENTATION

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BASES

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The purpose of the RBM is to limit control rod withdrawal if localized neutron flux exceeds a predetermined setpoint during control rod manipulations. It is assumed to function to block further control rod withdrawal to preclude a violation of the MCPR SL or a specified acceptable fuel design limit (SAFDL). The RBM supplies a trip signal to the Reactor Manual Control System (RMCS) to appropriately inhibit control rod withdrawal during power operation above the low power range setpoint. The RBM has two channels, either of which can initiate a control rod block when the channel output exceeds the control rod block setpoint. One RBM channel inputs into one RMCS rod block circuit and the other RBM channel inputs into the second RMCS rod block circuit.

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(continued)

BASES

BACKGROUND
(continued)

selected (Ref. 1). A rod block signal is also generated if an RBM Downscale trip or an Inoperable trip occurs. The Downscale trip will occur if the RBM channel signal decreases below the Downscale trip setpoint after the RBM signal has been normalized. The Inoperable trip will occur during the nulling (normalization) sequence, if: the RBM channel fails to null, too few LPRM inputs are available, a module is not plugged in, or the function switch is moved to any position other than "Operate."

The purpose of the RWM is to control rod patterns during startup and shutdown, such that only specified control rod sequences and relative positions are allowed over the operating range from all control rods inserted to 10% RTP. The sequences effectively limit the potential amount and rate of reactivity increase during a CRDA. Prescribed control rod sequences are stored in the RWM, which will initiate control rod withdrawal and insert blocks when the actual sequence deviates beyond allowances from the stored sequence. The RWM determines the actual sequence based position indication for each control rod. The RWM also uses feedwater flow and steam flow signals to determine when the reactor power is above the preset power level at which the RWM is automatically bypassed (Ref. 2). The RWM is a single channel system that provides input into both RMCS rod block circuits.

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(continued)

BASES

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

1. Rod Block Monitor (continued)

effects (for channels that must function in harsh environments as defined by 10 CFR 50.49) are accounted for.

The RBM is assumed to mitigate the consequences of an RWE event when operating $\geq 29\%$ RTP. Below this power level, the consequences of an RWE event will not violate the MCPR SL or the 1% plastic strain design limit; therefore, the RBM is not required to be OPERABLE (Ref. 3).

2. Rod Worth Minimizer

The RWM enforces the banked position withdrawal sequence (BPWS) to ensure that the initial conditions of the CRDA analysis are not violated. The analytical methods and assumptions used in evaluating the CRDA are summarized in References 4, 5, 6, and 7. In addition, the Reference 6 analysis (Generic BPWS analysis) may be modified by plant specific evaluations. The BPWS requires that control rods be moved in groups, with all control rods assigned to a specific group required to be within specified banked positions. Requirements that the control rod sequence is in compliance with the BPWS are specified in LCO 3.1.6, "Rod Pattern Control."

The RWM Function satisfies Criterion 3 of the NRC Policy Statement (Ref. 10).

Since the RWM is a system designed to act as a backup to operator control of the rod sequences, only one channel of the RWM is available and required to be OPERABLE (Ref. 7). Special circumstances provided for in the Required Action of LCO 3.1.3, "Control Rod OPERABILITY," and LCO 3.1.6 may necessitate bypassing the RWM to allow continued operation with inoperable control rods, or to allow correction of a control rod pattern not in compliance with the BPWS. The

(continued)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.210 TO FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO.151 TO FACILITY OPERATING LICENSE NPF-5
SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL.
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated May 9, 1997, as supplemented September 3, 1997, Southern Nuclear Operating Company, Inc. (Southern Nuclear), et al. (SNC or the licensee) proposed license amendments to change the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant (Plant Hatch), Units 1 and 2. The proposed changes would revise the applicability requirements for the Rod Block Monitor (RBM) to require that the RBM be operable whenever reactor thermal power is greater than or equal to 29 percent of rated thermal power (RTP). The changes modify TS Table 3.3.2.1-1, to revise the operability requirements for the RBM system. These modifications are more restrictive than current TS requirements and restore the RBM operability requirements to the requirements that existed prior to Amendment Nos. 105 and 39 for Plant Hatch, Units 1 and 2, respectively. SNC installed the General Electric (GE) average power range monitor rod block Technical Specification anticipatory reactor trip system (ARTS) revisions to the RBM for both units of Plant Hatch. The ARTS program included a revision to the RBM Applicability section in TS Table 3.3.2.1-1. The amendments, therefore, modify the RBM operability requirements in Table 3.3.2.1-1 and also delete the requirements in TS Section 5.6.5 to report RBM operability requirements in the cycle-specific Core Operating Limits Report (COLR). The September 3, 1997, supplemental letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The design basis of the RBM is to mitigate the consequences of the Rod Withdrawal Error (RWE) event at power. The analysis of the RWE requires a determination that appropriate fuel thermal limits (maximum critical power ratio (MCPR), mechanical overpower (MOP), thermal overpower (TOP)) are not exceeded for the RWE. Operation with the revised ARTS RBM TS operability statement was approved by the NRC in December 1994 for Plant Hatch, Units 1 and 2 (References 1 and 2). The MCPR limits incorporated into the Plant Hatch RBM operability statement with the ARTS changes were determined from a generic RWE analysis documented in NEDC-30474-P (Reference 3). The limits were developed to assure that the complete withdrawal of any single rod would not violate the Safety Limit MCPR.

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The RWE analysis is performed for each cycle using the NRC-approved methods described in GESTAR II (Reference 4). This analysis showed that the MOP and TOP requirements would be met without taking credit for an RBM control rod block. GE recently informed SNC that it was necessary to take credit for RBM high trip setpoint to meet the MOP (fuel cladding not to exceed 1 percent plastic strain during a RWE) requirements. This RBM restriction was needed at power levels above 29 percent of RTP. Currently, the TS allow the RBM to be inoperable when the core power is greater than 90 percent of rated power and the MCPR is greater than 1.40. The more restrictive condition of requiring RBM operability for all operation above 29 percent RTP is being requested in order to ensure that the RBM TS requirements will be adequate in the future without reliance on additional cycle-specific requirements being included in the COLR. In response to a staff request, the licensee provided assurance, in a supplemental letter dated September 3, 1997, that it will confirm that the RBM TS requirements continue to be valid at every operating cycle. Below 29 percent RTP, it is assumed fuel damage cannot occur for any single rod withdrawal. By the September 3, 1997, letter, the licensee also provided additional assurance, in response to a staff request, that fuel damage cannot occur for any RWE events below 29 percent power. Therefore, requiring the RBM to be operable below 29 percent RTP is not necessary. On this basis, the changes are acceptable.

Subsequent to the installation of ARTS at Plant Hatch, the NRC approved the replacement of cycle-specific power distribution limits in the TS with a reference to the COLR (Reference 5). At that time, the MCPR requirements for the RBM operability were removed from the TS and placed in Section 2 of the COLR. When the improved TS were implemented at Plant Hatch, Units 1 and 2, in March 1995, the RBM operability requirements were added back into the TS, but were not removed from the COLR. Section 5.6.5 of the TS is being revised to delete the RBM operability requirements from the COLR. This change is acceptable.

In conclusion, the staff finds the licensee's request for changes to the Plant Hatch, Units 1 and 2, Technical Specifications to require that the Rod Block Monitor be operable whenever reactor thermal power is greater than or equal to 29 percent of rated thermal power acceptable. This change is more restrictive than current Technical Specification requirements and restores the RBM operability requirements to the requirements that existed prior to Amendment Nos. 105 and 39 for Units 1 and 2, respectively. Requiring both channels of the RBM to be operable for all operations above 29 percent power bounds all conditions for which a rod withdrawal error may cause fuel thermal limits to be exceeded. Below 29 percent RTP, fuel damage cannot occur for any rod withdrawal event. Therefore, requiring the RBM to be operable below 29 percent RTP is not necessary. The Bases have also been modified consistent with TS changes. Accordingly, the amendments are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (62 FR 40857 dated July 30, 1997). Accordingly, the amendments meet 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 need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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REFERENCES

1. NRC letter issuing Amendment No. 105 to Facility Operating License No. DPR-57 for Edwin I. Hatch Nuclear Plant, Unit 1, R.A. Hermann to J. T. Beckham, December 31, 1984.
2. NRC letter issuing Amendment No. 39 to Facility Operating License No. NPF-5 for Edwin I. Hatch Nuclear Plant, Unit 2, G. W. Rivenbark to J. T. Beckham, July 31, 1984.
3. NEDC-30474-P, "General Electric BWR Licensing Report: Average Power Range Monitor, Rod Block Monitor and Technical Specification Improvement (ARTS) Program for Edwin I. Hatch Nuclear Plant Units 1 and 2," December 1983.
4. NEDE-24011-P-A-13, General Electric Standard Application for Reactor Fuel (GESTAR-II)," August 1996.
5. NRC letter issuing Amendment Nos. 168 and 106 to Facility Operating Licenses DPR-57 and NPF-5 for Edwin I. Hatch Nuclear Plant, Units 1 and 2, L.P. Crocker to W.G. Hariston, III, December 29, 1989.