

August 20, 1998

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. M99066 AND M99067)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No.213 to Facility Operating License DPR-57 and Amendment No. 154 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 (TSs) in response to your application dated October 29, 1996, as supplemented February 19, June 20, and October 21, 1997.

These amendments revise the TS associated with the oscillation power range monitor portion of the digital Power Range Neutron Monitoring system. The TS associated with the average power range monitor portion of the system were issued on March 21, 1997.

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:

Leonard N. Olshan, Senior 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. 213 to DPR-57
2. Amendment No. 154 to NPF-5
3. Safety Evaluation

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DOCUMENT NAME: G:\HATCH\99066.AMD *See previous concurrence

OFFICE	DRPE/PD22/PM*	DRPE/PD22/LA	OGC*	DRPE/PD22/D*
NAME	L.OLSHAN:cn	L.BERRY	SUttal	H.BERKMAN
DATE	7/29/98	7/28/98	8/16/98	8/20/98
COPY	YES NO	(YES) NO	YES NO	YES NO

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PDR



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 20, 1998

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Hatch Project
Southern Nuclear Operating
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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 "Leonard N. Olshan".

Leonard N. Olshan, Senior 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. 213 to DPR-57
2. Amendment No. 154 to NPF-5
3. Safety Evaluation

cc w/encl: 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. 213
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 October 29, 1996, as supplemented February 19, June 20, and October 21, 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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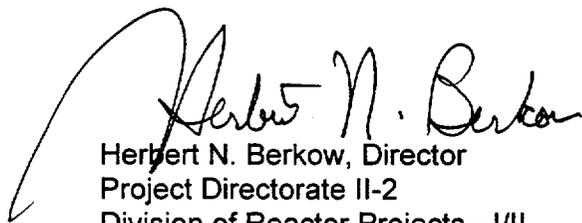
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 213 , 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 the startup from the next 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: August 20, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 213

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the operating license with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3.3-1	3.3-1
3.3-2	3.3-2 (no change)
3.3-3	3.3-3
3.3-4	3.3-4*
3.3-5	3.3-5*
3.3-6	3.3-6
3.3-7	3.3-7*
3.3-8	3.3-8
-----	3.3-8a*
-----	3.3-8b*
3.4-1	3.4-1
3.4-2	3.4-2
3.4-3	3.4-3
3.4-4	3.4-4

*no change - overflow page

3.3 INSTRUMENTATION

3.3.1.1 Reactor Protection System (RPS) Instrumentation

LCO 3.3.1.1 The RPS instrumentation for each Function in Table 3.3.1.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.1.1-1.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours
	OR A.2 -----NOTE----- Not applicable for Functions 2.a, 2.b, 2.c, 2.d, and 2.f. ----- Place associated trip system in trip.	
B. -----NOTE----- Not applicable for Functions 2.a, 2.b, 2.c, 2.d, and 2.f. ----- One or more Functions with one or more required channels inoperable in both trip systems.	B.1 Place channel in one trip system in trip.	6 hours
	OR B.2 Place one trip system in trip.	6 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more Functions with RPS trip capability not maintained.	C.1 Restore RPS trip capability.	1 hour
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 Enter the Condition referenced in Table 3.3.1.1-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	E.1 Reduce THERMAL POWER to < 30% RTP.	4 hours
F. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	F.1 Be in MODE 2.	6 hours
G. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	G.1 Be in MODE 3.	12 hours
H. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	H.1 Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
I. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	I.1 Initiate alternate method to detect and suppress thermal-hydraulic instability oscillations.	12 hours
	<u>AND</u> I.2 Restore required channels to OPERABLE.	120 days
J. Required Action and associated Completion Time of Condition I not met.	J.1 Be in MODE 2.	4 hours

SURVEILLANCE REQUIREMENTS

-----NOTES-----

1. Refer to Table 3.3.1.1-1 to determine which SRs apply for each RPS Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability.
-

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.1 Perform CHANNEL CHECK.	12 hours

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.2</p> <p>-----NOTE----- Not required to be performed until 12 hours after THERMAL POWER \geq 25% RTP. -----</p> <p>Verify the absolute difference between the average power range monitor (APRM) channels and the calculated power is \leq 2% RTP while operating at \geq 25% RTP.</p>	<p>7 days</p>
<p>SR 3.3.1.1.3 (Not used.)</p>	
<p>SR 3.3.1.1.4</p> <p>-----NOTE----- Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p>	<p>7 days</p>
<p>SR 3.3.1.1.5 Perform CHANNEL FUNCTIONAL TEST.</p>	<p>7 days</p>
<p>SR 3.3.1.1.6 Verify the source range monitor (SRM) and intermediate range monitor (IRM) channels overlap.</p>	<p>Prior to withdrawing SRMs from the fully inserted position</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.7 -----NOTE----- Only required to be met during entry into MODE 2 from MODE 1. ----- Verify the IRM and APRM channels overlap.	7 days
SR 3.3.1.1.8 Calibrate the local power range monitors.	1000 effective full power hours
SR 3.3.1.1.9 Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.1.1.10 -----NOTE----- For Function 2.a, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL FUNCTIONAL TEST.	184 days
SR 3.3.1.1.11 Verify Turbine Stop Valve — Closure and Turbine Control Valve Fast Closure, Trip Oil Pressure — Low Functions are not bypassed when THERMAL POWER is \geq 30% RTP.	184 days
SR 3.3.1.1.12 Perform CHANNEL FUNCTIONAL TEST.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.13 -----NOTES----- 1. Neutron detectors are excluded. 2. For Function 1, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL CALIBRATION.</p>	<p>18 months</p>
<p>SR 3.3.1.1.14 (Not used.)</p>	
<p>SR 3.3.1.1.15 Perform LOGIC SYSTEM FUNCTIONAL TEST.</p>	<p>18 months</p>
<p>SR 3.3.1.1.16 -----NOTE----- Neutron detectors are excluded. ----- Verify the RPS RESPONSE TIME is within limits.</p>	<p>18 months on a STAGGERED TEST BASIS</p>
<p>SR 3.3.1.1.17 Verify OPRM is not bypassed when APRM Simulated Thermal Power is $\geq 25\%$ and recirculation drive flow is $< 60\%$ of rated recirculation drive flow.</p>	<p>18 months</p>

Table 3.3.1.1-1 (page 1 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Intermediate Range Monitor					
a. Neutron Flux - High	2	3	G	SR 3.3.1.1.1 SR 3.3.1.1.4 SR 3.3.1.1.6 SR 3.3.1.1.7 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
	5(a)	3	H	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
b. Inop	2	3	G	SR 3.3.1.1.4 SR 3.3.1.1.15	NA
	5(a)	3	H	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
2. Average Power Range Monitor					
a. Neutron Flux - High (Setdown)	2	3(c)	G	SR 3.3.1.1.1 SR 3.3.1.1.7 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 20% RTP
b. Simulated Thermal Power - High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 0.58 W + 62% RTP and ≤ 115.5% RTP(b)
c. Neutron Flux - High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 120% RTP
d. Inop	1,2	3(c)	G	SR 3.3.1.1.10	NA

(continued)

- (a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.
- (b) 0.58 W + 62% - 0.58 ΔW RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."
- (c) Each APRM channel provides inputs to both trip systems.

Table 3.3.1.1-1 (page 2 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Average Power Range Monitor (continued)					
e. Two-out-of-Four Voter	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.10 SR 3.3.1.1.15 SR 3.3.1.1.16	NA
f. OPRM Upscale	1	3(c)	I	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13 SR 3.3.1.1.17	NA
3. Reactor Vessel Steam Dome Pressure - High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 1085 psig
4. Reactor Vessel Water Level - Low, Level 3	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≥ 0 inches
5. Main Steam Isolation Valve - Closure	1	8	F	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 10% closed
6. Drywell Pressure - High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 1.92 psig
7. Scram Discharge Volume Water Level - High					
a. Resistance Temperature Detector	1,2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 71 gallons
	5(a)	2	H	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 71 gallons
b. Float Switch	1,2	2	G	SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 71 gallons
	5(a)	2	H	SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 71 gallons

(continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

(c) Each APRM channel provides inputs to both trip systems.

Table 3.3.1.1-1 (page 3 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
8. Turbine Stop Valve - Closure	≥ 30% RTP	4	E	SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 10% closed
9. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≥ 30% RTP	2	E	SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≥ 600 psig
10. Reactor Mode Switch - Shutdown Position	1,2	1	G	SR 3.3.1.1.12 SR 3.3.1.1.15	NA
	5(a)	1	H	SR 3.3.1.1.12 SR 3.3.1.1.15	NA
11. Manual Scram	1,2	1	G	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
	5(a)	1	H	SR 3.3.1.1.5 SR 3.3.1.1.15	NA

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

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3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.1 Recirculation Loops Operating

LCO 3.4.1 Two recirculation loops with matched flows shall be in operation,

OR

One recirculation loop shall be in operation with the following limits applied when the associated LCO is applicable:

- a. LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)," single loop operation limits specified in the COLR;
- b. LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," single loop operation limits specified in the COLR; and
- c. LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 2.b (Average Power Range Monitor Simulated Thermal Power — High), Allowable Value of Table 3.3.1.1-1 is reset for single loop operation.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. Requirements of the LCO not met.</p>	<p>A.1 Satisfy the requirements of the LCO.</p>	<p>24 hours</p>
<p>B. Required Action and associated Completion Time of Condition A not met.</p> <p><u>OR</u></p> <p>No recirculation loops in operation.</p>	<p>B.1 Be in MODE 3.</p>	<p>12 hours</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.4.1.1</p> <p style="text-align: center;">-----NOTE-----</p> <p>Not required to be performed until 24 hours after both recirculation loops are in operation.</p> <p>-----</p> <p>Verify recirculation loop jet pump flow mismatch with both recirculation loops in operation is:</p> <p>a. $\leq 10\%$ of rated core flow when operating at $< 70\%$ of rated core flow; and</p> <p>b. $\leq 5\%$ of rated core flow when operating at $\geq 70\%$ of rated core flow.</p>	<p>24 hours</p>
<p>SR 3.4.1.2 (Not used.)</p>	



UNITED STATES
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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. 154
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 October 29 1996, as supplemented February 19, June 20, and October 21, 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.

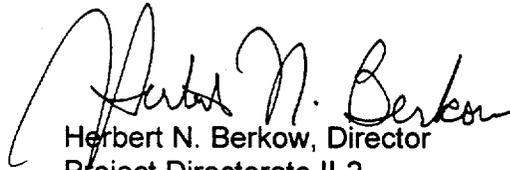
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-5 is hereby amended to read as follows:

- (2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 154 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 the startup from the next 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: August 20, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 154

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the operating license with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3.3-1	3.3-1
3.3-2	3.3-2 (no change)
3.3-3	3.3-3
3.3-4	3.3-4*
3.3-5	3.3-5*
3.3-6	3.3-6
3.3-7	3.3-7*
3.3-8	3.3-8
-----	3.3-8a*
-----	3.3-8b*
3.4-1	3.4-1
3.4-2	3.4-2
3.4-3	3.4-3
3.4-4	3.4-4

*no change - overflow page

3.3 INSTRUMENTATION

3.3.1.1 Reactor Protection System (RPS) Instrumentation

LCO 3.3.1.1 The RPS instrumentation for each Function in Table 3.3.1.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.1.1-1.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours
	<u>OR</u> A.2 -----NOTE----- Not applicable for Functions 2.a, 2.b, 2.c, 2.d, and 2.f. ----- Place associated trip system in trip.	
B. -----NOTE----- Not applicable for Functions 2.a, 2.b, 2.c, 2.d, and 2.f. ----- One or more Functions with one or more required channels inoperable in both trip systems.	B.1 Place channel in one trip system in trip.	6 hours
	<u>OR</u> B.2 Place one trip system in trip.	6 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more Functions with RPS trip capability not maintained.	C.1 Restore RPS trip capability.	1 hour
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 Enter the Condition referenced in Table 3.3.1.1-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	E.1 Reduce THERMAL POWER to < 30% RTP.	4 hours
F. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	F.1 Be in MODE 2.	6 hours
G. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	G.1 Be in MODE 3.	12 hours
H. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	H.1 Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
I. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	I.1 Initiate alternate method to detect and suppress thermal-hydraulic instability oscillations.	12 hours
	<u>AND</u> I.2 Restore required channels to OPERABLE.	120 days
J. Required Action and associated Completion Time of Condition I not met.	J.1 Be in MODE 2.	4 hours

SURVEILLANCE REQUIREMENTS

-----NOTES-----

1. Refer to Table 3.3.1.1-1 to determine which SRs apply for each RPS Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability.
-

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.1 Perform CHANNEL CHECK.	12 hours

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.2 -----NOTE----- Not required to be performed until 12 hours after THERMAL POWER \geq 25% RTP. -----</p> <p>Verify the absolute difference between the average power range monitor (APRM) channels and the calculated power is \leq 2% RTP while operating at \geq 25% RTP.</p>	7 days
<p>SR 3.3.1.1.3 (Not used.)</p>	
<p>SR 3.3.1.1.4 -----NOTE----- Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p>	7 days
<p>SR 3.3.1.1.5 Perform CHANNEL FUNCTIONAL TEST.</p>	7 days
<p>SR 3.3.1.1.6 Verify the source range monitor (SRM) and intermediate range monitor (IRM) channels overlap.</p>	Prior to withdrawing SRMs from the fully inserted position

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.7 -----NOTE----- Only required to be met during entry into MODE 2 from MODE 1. ----- Verify the IRM and APRM channels overlap.</p>	7 days
<p>SR 3.3.1.1.8 Calibrate the local power range monitors.</p>	1000 effective full power hours
<p>SR 3.3.1.1.9 Perform CHANNEL FUNCTIONAL TEST.</p>	92 days
<p>SR 3.3.1.1.10 -----NOTE----- For Function 2.a, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL FUNCTIONAL TEST.</p>	184 days
<p>SR 3.3.1.1.11 Verify Turbine Stop Valve — Closure and Turbine Control Valve Fast Closure, Trip Oil Pressure — Low Functions are not bypassed when THERMAL POWER is \geq 30% RTP.</p>	18 months
<p>SR 3.3.1.1.12 Perform CHANNEL FUNCTIONAL TEST.</p>	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.13 -----NOTES----- 1. Neutron detectors are excluded. 2. For Function 1, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL CALIBRATION.</p>	<p>18 months</p>
<p>SR 3.3.1.1.14 (Not used.)</p>	
<p>SR 3.3.1.1.15 Perform LOGIC SYSTEM FUNCTIONAL TEST.</p>	<p>18 months</p>
<p>SR 3.3.1.1.16 -----NOTES----- 1. Neutron detectors are excluded. 2. For Functions 3 and 4, channel sensors are excluded. 3. For Function 5, "n" equals 4 channels for the purpose of determining the STAGGERED TEST BASIS Frequency. ----- Verify the RPS RESPONSE TIME is within limits.</p>	<p>18 months on a STAGGERED TEST BASIS</p>
<p>SR 3.3.1.1.17 Verify OPRM is not bypassed when APRM Simulated Thermal Power is \geq 25% and recirculation drive flow is < 60% of rated recirculation drive flow.</p>	<p>18 months</p>

Table 3.3.1.1-1 (page 1 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Intermediate Range Monitor					
a. Neutron Flux - High	2	3	G	SR 3.3.1.1.1 SR 3.3.1.1.4 SR 3.3.1.1.6 SR 3.3.1.1.7 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
	5(a)	3	H	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
b. Inop	2	3	G	SR 3.3.1.1.4 SR 3.3.1.1.15	NA
	5(a)	3	H	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
2. Average Power Range Monitor					
a. Neutron Flux - High (Setdown)	2	3(c)	G	SR 3.3.1.1.1 SR 3.3.1.1.7 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 20% RTP
b. Simulated Thermal Power - High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 0.58 W + 62% RTP and ≤ 115.5% RTP(b)
c. Neutron Flux - High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 120% RTP
d. Inop	1,2	3(c)	G	SR 3.3.1.1.10	NA

(continued)

- (a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.
- (b) 0.58 W + 62% - 0.58 ΔW RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."
- (c) Each APRM channel provides inputs to both trip systems.

Table 3.3.1.1-1 (page 2 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Average Power Range Monitor (continued)					
e. Two-out-of-Four Voter	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.10 SR 3.3.1.1.15 SR 3.3.1.1.16	NA
f. OPRM Upscale	1	3 ^(c)	I	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13 SR 3.3.1.1.17	NA
3. Reactor Vessel Steam Dome Pressure - High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≤ 1085 psig
4. Reactor Vessel Water Level - Low, Level 3	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≥ 0 inches
5. Main Steam Isolation Valve - Closure	1	8	F	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≤ 10% closed
6. Drywell Pressure - High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 1.92 psig
7. Scram Discharge Volume Water Level - High					
a. Resistance Temperature Detector	1,2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 57.15 gallons
	5(a)	2	H	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 57.15 gallons
b. Float Switch	1,2	2	G	SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 57.15 gallons
	5(a)	2	H	SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 57.15 gallons

(continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

(c) Each APRM channel provides inputs to both trip systems.

Table 3.3.1.1-1 (page 3 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
8. Turbine Stop Valve - Closure	≥ 30% RTP	4	E	SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≤ 10% closed
9. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≥ 30% RTP	2	E	SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.16	≥ 600 psig
10. Reactor Mode Switch - Shutdown Position	1,2	2	G	SR 3.3.1.1.12 SR 3.3.1.1.15	NA
	5(a)	2	H	SR 3.3.1.1.12 SR 3.3.1.1.15	NA
11. Manual Scram	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
	5(a)	2	H	SR 3.3.1.1.5 SR 3.3.1.1.15	NA

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

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3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.1 Recirculation Loops Operating

LCO 3.4.1 Two recirculation loops with matched flows shall be in operation,

OR

One recirculation loop shall be in operation with the following limits applied when the associated LCO is applicable:

- a. LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)," single loop operation limits specified in the COLR;
- b. LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," single loop operation limits specified in the COLR; and
- c. LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 2.b (Average Power Range Monitor Simulated Thermal Power — High), Allowable Value of Table 3.3.1.1-1 is reset for single loop operation.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. Requirements of the LCO not met.</p>	<p>A.1 Satisfy the requirements of the LCO.</p>	<p>24 hours</p>
<p>B. Required Action and associated Completion Time of Condition A not met.</p> <p><u>OR</u></p> <p>No recirculation loops in operation.</p>	<p>B.1 Be in MODE 3.</p>	<p>12 hours</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.4.1.1 -----NOTE----- Not required to be performed until 24 hours after both recirculation loops are in operation. -----</p> <p>Verify recirculation loop jet pump flow mismatch with both recirculation loops in operation is:</p> <ul style="list-style-type: none"> a. \leq 10% of rated core flow when operating at < 70% of rated core flow; and b. \leq 5% of rated core flow when operating at \geq 70% of rated core flow. 	<p>24 hours</p>
<p>SR 3.4.1.2 (Not used.)</p>	



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 213 TO FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 154 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 October 29, 1996, as supplemented February 19, June 20, and October 21, 1997, Southern Nuclear Operating Company, Inc. (Southern Nuclear/the licensee), et al., proposed license amendments to change the Technical Specifications (TSs) for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The proposed changes would reflect the oscillation power range monitor (OPRM) portion of the digital nuclear measurement analysis and control power range neutron monitor (NUMAC-PRNM) system. The TSs associated with the average power range monitor portion of the system were issued on March 21, 1997. The license amendment did not include the OPRM function, which was to be operated for one fuel cycle in a monitor-only configuration for testing purposes. The test results were provided in the licensee's letter dated October 21, 1997. The staff's letter dated May 22, 1998, concluded that the test results supported the licensee's request to modify the OPRM settings.

The letters dated February 19, June 20, and October 21, 1997, provided clarifying information that did not change the scope of the October 29, 1996, application and the initial proposed no significant hazards consideration determination or expand the scope of the Federal Register notice (62 FR 130 dated January 2, 1997).

2.0 SYSTEM DESCRIPTION

Using the existing local power range monitors (LPRMs) and the recirculation coolant loop flows, the NUMAC-PRNM system provides average power range monitor (APRM) trip signals and OPRM trip signals to the reactor protection system (RPS). The APRM system averages LPRM signals, processes flow signals from the reactor core recirculation flow instrumentation, and then compares the results to RPS trip setpoints. The OPRM detects and suppresses reactor core power instabilities using the Option III approach described in topical report NEDO-31960, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," dated June 1991, which was approved by the NRC staff.

The General Electric (GE) NUMAC-PRNM system hardware consists of four APRM channels and four voter channels. The OPRM instability detect-and-suppress function is implemented in

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each APRM channel. APRM function trip signals and OPRM function trip signals from each of the four APRM channels are sent to all four voter channels. One voter module is dedicated to each RPS trip relay, such that there are two voter channels for each RPS trip system. A reactor trip occurs when two or more of the four APRM functions or two or more of the four OPRM functions calculate a trip condition. The voters perform a vote of the trip function outputs from the four OPRM channels separate from the trip function outputs from the four APRM channels (i.e., an OPRM function trip in one channel and an APRM function trip in another channel will not result in a reactor trip from two of four voters in a trip state).

3.0 EVALUATION

To receive NRC approval, the plant-specific revised TSs for the NUMAC-PRNM system OPRM function must be consistent with the OPRM TS in NEDC-32410P-A, Supplement 1, "Nuclear Measurement Analysis and Control Power Range Neutron Monitor (NUMAC-PRNM) Retrofit Plus Option III Stability Trip Function - Supplement 1," which was previously approved by the NRC staff. The licensee requested the following changes to the TS for Hatch Units 1 and 2.

3.1 Proposed Changes to TS 3.3.1.1, Reactor Protection System (RPS) Instrumentation

The licensee added "and Function 2.f" to the Note in Required Action A.2, and to the Note in Condition B. Both notes state, "Not applicable for Functions 2.a, 2.b, 2.c, 2.d, and 2.f." These changes are consistent with Supplement 1 to NEDC-32410P-A, and, therefore, are acceptable.

The licensee proposed adding Condition I, which states, "As required by Required Action D.1 and referenced in Table 3.3.1.1-1." Required Action I.1 associated with Condition I states, "Initiate alternate method to detect and suppress thermal-hydraulic instability oscillations," and has a Completion Time of 12 hours. Required Action I.2 states, "Restore required channels to OPERABLE," and has a Completion Time of 120 days. These changes are consistent with Supplement 1 to NEDC-32410P-A, and, therefore, are acceptable.

The licensee proposed adding Condition J, which states, "Required Action and associated Completion Time of Condition I not met." Required Action J.1 states, "Be in MODE 2," and has a Completion Time of 4 hours. The proposed Condition J CONDITION and associated COMPLETION TIME are consistent with NEDC-32410P-A, Supplement 1, and, therefore, are acceptable.

Proposed TS 3.3.1.1 Required Action J.1 states, "Be in MODE 2." NEDC-32410P-A, Supplement 1, TS 3.3.1.1 Required Action J.1 requires, "Reduce THERMAL POWER to <[25%] RTP [rated thermal power]." The NEDC-32410P-A, Supplement 1 thermal power limit allows for licensee adjustments to values more conservative than the value in the topical report. The proposed operating limit of MODE 2 (0 percent RTP) is consistent with the topical report, and therefore, is acceptable.

3.2 Proposed Changes to TS Table 3.3.1.1-1, Reactor Protection System Instrumentation

The licensee added APRM Function 2.f, OPRM Upscale, to Table 3.3.1.1-1. The proposed changes are shown in the table below.

Table 3.3.1.1-1 (page 2 of 3) Reactor Protection System Instrumentation					
FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Average Power Range Monitor (continued)					
f. OPRM Upscale	1	3 ^(c)	I	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13 SR 3.3.1.1.17	NA

The proposed Applicable Mode for APRM Function 2.f is MODE 1, which is less than the minimum power level (\geq [25] percent RTP) required by Supplement 1 to NEDC-32410P-A, and therefore, is acceptable.

Proposed Surveillance Requirement (SR) 3.3.1.1.10 is equivalent to SR 3.3.1.1.11 in NEDC-32410P-A Supplement 1, and therefore, is acceptable.

Proposed SR 3.3.1.1.17 states, "Verify OPRM not bypassed when APRM Simulated Thermal Power is \geq 25% and recirculation drive flow is $<$ 60% of rated recirculation drive flow." The corresponding NEDC-32410P-A, Supplement 1, SR 3.3.1.1.18 states, "Verify OPRM not bypassed when APRM Simulated Thermal Power is \geq [30]% and recirculation drive flow is $<$ [60]% of rated recirculation drive flow." The licensee states that the OPRM function is bypassed automatically when the plant is operating in the Run Mode (MODE 1). Additionally, the OPRM Upscale is bypassed automatically when THERMAL POWER is below 25 percent RTP (as indicated by APRM Simulated Thermal Power) or with flow above 60 percent rated core flow (as indicated by recirculation drive flow). In the region below 25 percent RTP and above 60 percent rated core flow, the licensee does not consider thermal-hydraulic instabilities to be credible in the Hatch plants and the staff agrees. The 25 percent RTP limit provides additional margin from the nominal 30 percent RTP OPRM scram enable setpoint.

Although the OPRM Upscale trip function (APRM Function 2.f) is bypassed at $<$ 25 percent RTP and $>$ 60 percent flow, the OPRM Upscale trip capability must be immediately available without operator intervention for plant-specific events that can change the reactor power to \geq 25 percent RTP and the flow to $<$ 60 percent rated flow without operator action. OPRM OPERABILITY at MODE 1 (\geq 0 percent RTP) is more conservative than that required by Supplement 1 to NEDC-32410P-A \geq 25 percent RTP). The staff, therefore, concurs with the proposed change.

The remaining proposed SRs and associated TS Bases for APRM Function 2.f, OPRM Upscale, are consistent with NEDC-32410P-A, Supplement 1 SRs. The proposed changes to Table 3.3.1.1-1 for APRM Function 2.f are, therefore, acceptable.

3.3 TS Bases Page B 3.3-7, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation

The TS Bases for the APRM have been changed to include the OPRM Upscale trip function. The first proposed change to TS Bases page B 3.3-7 adds the following sentence to the end of the first paragraph, "...Each APRM also includes an Oscillation Power Range Monitor (OPRM) Upscale Function which monitors small groups of LPRM signals to detect thermal-hydraulic instabilities." This description is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The second change to TS Bases page B 3.3-7, incorporates the OPRM Upscale Function 2.f into the second paragraph discussion of APRM trip function voting. The proposed change states, "...APRM trip Functions 2.a, 2.b, 2.c, and 2.d are voted independently of OPRM Upscale Function 2.f. Therefore, any Function 2.a, 2.b, 2.c, or 2.d trip from any two unbypassed APRM channels will result in a full trip in each of the four voter channels, which in turn results in two trip inputs into each RPS trip logic channel (A1, A2, B1, and B2). Similarly, a Function 2.f trip from any two unbypassed APRM channels will result in a full-trip from each of the four voter channels." This description is consistent with the description provided in NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The last change to TS Bases page B 3.3-7 adds to the end of the last paragraph a discussion of OPRM Upscale Function 2.f operability determination. NEDC-32410P-A, Supplement 1 states, "...For the OPRM Upscale, Function 2.f, LPRMs are assigned to "cells" of [4] detectors. A minimum of [later] cells, each with a minimum of [2] LPRMs, must be OPERABLE for the OPRM Upscale Function 2.f to be OPERABLE." The proposed Hatch TS Bases state, "...For the OPRM Upscale, Function 2.f, LPRMs are assigned to "cells" of three detectors. A minimum of three cells, each with a minimum of two LPRMs, must be OPERABLE for the OPRM Upscale Function 2.f to be OPERABLE." The lesser number of LPRMs per OPRM cell (3 vs. 4) in the Hatch TS Bases is consistent with the Hatch core design, which is smaller than the core design referenced in NEDC-32410P-A, Supplement 1. The description is also consistent with the NEDC-32410P-A, Supplement 1 Bases. The proposed changes are, therefore, acceptable.

3.4 TS Bases Page B 3.3-11, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; APRM Function 2.e, Two-out-of-Four Voter

The first change to TS Bases page B 3.3-11 revises the first sentence to include the OPRM Upscale function. The proposed first sentence states, "The Two-out-of-Four Voter Function provides the interface between the APRM Functions, including the OPRM Upscale Function, and the final RPS trip system logic." This description is consistent with the description provided in NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The second proposed change inserts a discussion of voter operability determination as the third paragraph. The proposed description is consistent with the description provided in NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

3.5 TS Bases Page B 3.3-11, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; APRM Function 2.f, Oscillation Power Range Monitor (OPRM) Upscale

The proposed change describes APRM Function 2.f, and provides guidance in determining operability. The proposed description is consistent with the description provided in NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

3.6 TS Bases Page B 3.3-20, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; Actions A.1 and A.2

The first change adds a reference to NEDC-32410P-A, Supplement 1 in the first paragraph. This reference is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The second change revises the first sentence of the second paragraph to include OPRM Upscale Function 2.f in the list of functions that are excluded from Action A.2. The proposed sentence states, "As noted, Action A.2 is not applicable for APRM Functions 2.a, 2.b, 2.c, 2.d, and 2.f." This revision is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

3.7 TS Bases Page B 3.3-21 to Page B 3.3-22, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; Actions B.1 and B.2

The first change adds a reference to NEDC-32410P-A, Supplement 1 in the second and third paragraphs. These references are consistent with NEDC-32410P-A, Supplement 1, and, therefore, are acceptable.

The second change revises the first sentence of the last paragraph to include OPRM Upscale Function 2.f in the list of functions that are excluded from Condition B. The proposed sentence states, "As noted, Condition B is not applicable for APRM Functions 2.a, 2.b, 2.c, 2.d, and 2.f." This revision is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The last change clarifies the fourth and fifth sentences of the last paragraph to distinguish inoperability of a channel as a condition related to the APRM functions and the OPRM function. The proposed sentences state, "...Inoperability of a Function in more than one required APRM channel results in loss of trip capability for that function and entry into Condition C, as well as entry into Condition A for each channel. Because Conditions A and C provide Required Actions that are appropriate for the inoperability of APRM Functions 2.a, 2.b, 2.c, 2.d, and 2.f, and these functions are not associated with specific trip systems as are the APRM two-out-of-four voter and other non-APRM channels, Condition B does not apply." This revision is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

3.8 TS Bases Page B 3.3-23, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; Action J.1

This change includes Action J.1 in the Bases discussion for Actions E.1, F.1, and G.1. Additionally, the last sentence was changed to make the completion time for Action J.1

consistent with the Completion Time in Limiting Condition For Operation (LCO) 3.2.2. These changes are consistent with NEDC-32410P-A, Supplement 1, and, therefore, are acceptable.

3.9 TS Bases Page B 3.3-23, Proposed Changes to TS Bases B 3.3.1.1, RPS Instrumentation; Actions I.1 and I.2

These changes add TS Bases descriptions for TS 3.3.1.1 Actions I.1 and I.2. The proposed TS Bases are consistent with NEDC-32410P-A, Supplement 1, and, therefore, are acceptable.

3.10 TS Bases Page B 3.3-28, Proposed Change to TS Bases B 3.3.1.1, RPS Instrumentation; SR 3.3.1.1.10

The change adds a reference to NEDC-32410P-A, Supplement 1 in the last sentence of the first paragraph. The proposed change is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

3.11 TS Bases Page B 3.3-31, Proposed Change to TS Bases B 3.3.1.1, RPS Instrumentation; SR 3.3.1.1.15

The last paragraph was changed to include OPRM trip conditions in the discussion. The proposed paragraph states, "The LOGIC SYSTEM FUNCTIONAL TEST for APRM Function 2.e simulates APRM and OPRM trip conditions at the...." The proposed change is consistent with NEDC-32410P-A, Supplement 1, and, therefore, is acceptable.

The change adds a TS Bases discussion for SR 3.3.1.1.17, which discusses operability of the OPRM Upscale Function 2.f. The proposed change is consistent with the discussion of SR 3.3.1.1.17 in Section 3.2 above, and with SR 3.1.1.18 in NEDC-32410P-A, Supplement 1. Therefore, the proposed change is acceptable.

3.12 TS Bases Page B 3.3-32, Proposed Change to TS Bases B 3.3.1.1, RPS Instrumentation; References

The change adds References 14 through 18. These proposed references are consistent with the TS Bases discussions and NEDC-32410P-A, Supplement 1, and, therefore, are acceptable.

3.13 LCO 3.4.1.a, Recirculation Loops Operating

The proposed change renumbers TS LCO 3.4.1.a.1, 3.4.1.a.2, and 3.4.1.a.3 to LCO 3.4.1.a, 3.4.1.b, and 3.4.1.c, respectively. The proposed change does not change the existing LCO conditions and is consistent with the existing Boiling Water Reactor Standard Technical Specifications (BWR STS) (NUREG-1433), and, therefore, is acceptable.

3.14 TS LCO 3.4.1.b, Recirculation Loops Operating

The proposed change deletes LCO 3.4.1.b and the associated Action B and Figure 3.4.1-1, "Power-Flow Operating Map with One Reactor Coolant System Recirculation Loop in Operation," and amends the corresponding TS Bases. LCO 3.4.1.b, Action B, and

The proposed change deletes LCO 3.4.1.b and the associated Action B and Figure 3.4.1-1, "Power-Flow Operating Map with One Reactor Coolant System Recirculation Loop in Operation," and amends the corresponding TS Bases. LCO 3.4.1.b, Action B, and Figure 3.4.1-1 were added to the TS to address conditions that could lead to reactor power oscillations during single loop operation. These conditions will be addressed automatically by the OPRM function, and, therefore, are not required in the TS. Additionally, the proposed change is consistent with the existing BWR STS (NUREG-1433) and, therefore, is acceptable.

3.15 Actions A, C, and D, TS LCO 3.4.1, Recirculation Loops Operating

The proposed change deletes TS LCO 3.4.1 Action A, renumbers LCO 3.4.1 Actions C and D to LCO 3.4.1 Actions A and B, respectively, and amends the corresponding TS Bases. Additionally, the proposed change revises Action B to include "No recirculation loops in operation." The proposed changes are consistent with the BWR STS (NUREG-1433), and, therefore, are acceptable.

3.16 SR 3.4.1.2, Recirculation Loops Operating

The proposed change deletes SR 3.4.1.2, which required verification that core thermal power was in the "Operation Allowed Region" of Figure 3.4.1-1. The proposed change is consistent with deletion of Figure 3.4.1-1, and, therefore, is acceptable.

3.17 TS Bases B 3.4.1, Applicable Safety Analyses and LCO

The proposed change renames the APRM Flow-Biased Simulated Thermal Power-High function to APRM Simulated Thermal Power-High, which is consistent with the proposed TS nomenclature, and, therefore, is acceptable.

3.18 References 4 and 5, TS B 3.4.1

The proposed change removes Reference 4, GE Service Information Letter No. 380, Revision 1, "Interim Recommendations for Stability Actions." Reference 5 was renumbered as Reference 4. The proposed change is consistent with implementation of the OPRM function, which addresses reactor power oscillations, and, therefore, is acceptable.

Based on the preceding review of justifications for TS changes, the NRC staff concludes that the licensee's proposed TS changes for the OPRM function are consistent with the NRC-approved guidance in NEDC-32410P-A, Supplement 1, and the BWR STS (NUREG-1433) and, therefore, are acceptable.

4.0 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.

5.0 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 change 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 130 dated January 2, 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.

6.0 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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