

July 12, 2002

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

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2 RE: ISSUANCE OF
AMENDMENTS (TAC NOS. MB2965 AND MB2967)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 232 to Renewed Facility Operating License DPR-57 and Amendment No. 174 to Renewed 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 September 20, 2001, as supplemented by letters dated March 27 and April 12, 2002.

The amendments revise the TSs to support extension of the operating cycle from 18 months to 24 months.

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,

/RA/

Leonard N. Olshan, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 232 to DPR-57
2. Amendment No. 174 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

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Leonard N. Olshan, Senior Project Manager, Section 1
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1. Amendment No. 232 to DPR-57
2. Amendment No. 174 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

Package: ML022040056

Tech Spec Pages: ML022030455 &
ML022030467

Amendment: ML022040085

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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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 232

Renewed 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) Renewed Facility Operating License No. DPR-57 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated September 20, 2001, as supplemented by letters dated March 27 and April 12, 2002, 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 Renewed 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. 232 , 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 of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: July 12, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 232

RENEWED FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix A Technical Specifications and associated Bases with the attached revised pages. The revised pages are identified by amendment numbers and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3.1-19	3.1-19
3.1-23	3.1-23
3.3-5	3.3-5
3.3-6	3.3-6
3.3-8	3.3-8
3.3-13	3.3-13
3.3-18	3.3-18
3.3-21	3.3-21
3.3-23	3.3-23
3.3-26	3.3-26
3.3-28	3.3-28
3.3-29	3.3-29
3.3-32	3.3-32
3.3-37	3.3-37
3.3-39	3.3-39
3.3-45	3.3-45
3.3-49	3.3-49
3.3-50	3.3-50
3.3-53	3.3-53
3.3-56	3.3-56
3.3-60	3.3-60
3.3-63	3.3-63
3.3-69	3.3-69
3.4-11	3.4-11
3.5-4	3.5-4
3.5-5	3.5-5
3.5-8	3.5-8
3.5-10	3.5-10
3.6-2	3.6-2
3.6-12	3.6-12
3.6-16	3.6-16
3.6-18	3.6-18
3.6-20	3.6-20

Remove

Insert

3.6-33

3.6-33

3.6-34

3.6-34

3.6-37

3.6-37

3.6-40

3.6-40

3.7-5

3.7-5

3.7-7

3.7-7

3.7-10

3.7-10

3.7-11

3.7-11

3.7-15

3.7-15

3.7-18

3.7-18

3.8-10

3.8-10

3.8-11

3.8-11

3.8-12

3.8-12

3.8-13

3.8-13

3.8-14

3.8-14

3.8-15

3.8-15

3.8-16

3.8-16

3.8-17

3.8-17

3.8-18

3.8-18

3.8-25

3.8-25

3.8-28

3.8-28

3.8-29

3.8-29

5.0-10

5.0-10

B 3.1-39

B 3.1-39

B 3.1-40

B 3.1-40

B 3.1-44

B 3.1-44

B 3.1-45

B 3.1-45

B 3.3-16

B 3.3-16

B 3.3-17

B 3.3-17

B 3.3-27

B 3.3-27

B 3.3-28

B 3.3-28

B 3.3-29

B 3.3-29

B 3.3-30

B 3.3-30

B 3.3-32

B 3.3-32

B 3.3-40

B 3.3-40

B 3.3-41

B 3.3-41

B 3.3-43

B 3.3-43

B 3.3-49

B 3.3-49

B 3.3-50

B 3.3-50

B 3.3-51

B 3.3-51

B 3.3-52

B 3.3-52

B 3.3-57

B 3.3-57

B 3.3-58

B 3.3-58

B 3.3-68

B 3.3-68

B 3.3-69

B 3.3-69

B 3.3-74

B 3.3-74

B 3.3-77

B 3.3-77

B 3.3-78

B 3.3-78

Remove

Insert

B 3.3-81
B 3.3-82
B 3.3-83
B 3.3-90
B 3.3-91
B 3.3-107
B 3.3-122
B 3.3-123
B 3.3-124
B 3.3-133
B 3.3-134
B 3.3-141
B 3.3-142
B 3.3-158
B 3.3-159
B 3.3-160
B 3.3-169
B 3.3-170
B 3.3-177
B 3.3-178
B 3.3-184
B 3.3-198
B 3.3-199
B 3.4-12
B 3.4-23
B 3.5-11
B 3.5-12
B 3.5-13
B 3.5-14
B 3.5-26
B 3.5-27
B 3.6-4
B 3.6-5
B 3.6-24
B 3.6-25
B 3.6-26
B 3.6-34
B 3.6-39
B 3.6-40
B 3.6-46
B 3.6-76
B 3.6-82
B 3.6-83
B 3.6-90
B 3.7-13
B 3.7-16
B 3.7-17
B 3.7-23

B 3.3-81
B 3.3-82
B 3.3-83
B 3.3-90
B 3.3-91
B 3.3-107
B 3.3-122
B 3.3-123
B 3.3-124
B 3.3-133
B 3.3-134
B 3.3-141
B 3.3-142
B 3.3-158
B 3.3-159
B 3.3-160
B 3.3-169
B 3.3-170
B 3.3-177
B 3.3-178
B 3.3-184
B 3.3-198
B 3.3-199
B 3.4-12
B 3.4-23
B 3.5-11
B 3.5-12
B 3.5-13
B 3.5-14
B 3.5-26
B 3.5-27
B 3.6-4
B 3.6-5
B 3.6-24
B 3.6-25
B 3.6-26
B 3.6-34
B 3.6-39
B 3.6-40
B 3.6-46
B 3.6-76
B 3.6-82
B 3.6-93
B 3.6-90
B 3.7-13
B 3.7-16
B 3.7-17
B 3.7-23

Remove

B 3.7-24
B 3.7-30
B 3.7-36
B 3.7-37
B 3.8-23 thru B 3.8-84

Insert

B 3.7-24
B 3.7-30
B 3.7-36
B 3.7-37
B 3.8-23 thru B 3.8-84

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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 174
Renewed 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) Renewed Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated September 20, 2001, as supplemented by letters dated March 27 and April 12, 2002, 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 Renewed 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. 174 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 of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: July 12, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 174

RENEWED FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the Appendix A Technical Specifications and associated Bases with the attached revised pages. The revised pages are identified by amendment numbers and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3.1-19	3.1-19
3.1-23	3.1-23
3.3-5	3.3-5
3.3-6	3.3-6
3.3-8	3.3-8
3.3-13	3.3-13
3.3-18	3.3-18
3.3-19	3.3-19
3.3-21	3.3-21
3.3-23	3.3-23
3.3-26	3.3-26
3.3-29	3.3-29
3.3-32	3.3-32
3.3-37	3.3-37
3.3-39	3.3-39
3.3-45	3.3-45
3.3-49	3.3-49
3.3-50	3.3-50
3.3-53	3.3-53
3.3-56	3.3-56
3.3-60	3.3-60
3.3-63	3.3-63
3.3-69	3.3-69
3.4-11	3.4-11
3.5-4	3.5-4
3.5-5	3.5-5
3.5-8	3.5-8
3.5-10	3.5-10
3.6-2	3.6-2
3.6-12	3.6-12

Remove

Insert

3.6-16	3.6-16
3.6-18	3.6-18
3.6-20	3.6-20
3.6-30	3.6-30
3.6-34	3.6-34
3.6-35	3.6-35
3.6-38	3.6-38
3.6-41	3.6-41
3.7-5	3.7-5
3.7-7	3.7-7
3.7-10	3.7-10
3.7-11	3.7-11
3.7-15	3.7-15
3.7-18	3.7-18
3.8-10 thru 3.8-18	3.8-10 thru 3.8-18
3.8-25	3.8-25
3.8-28	3.8-28
3.8-29	3.8-29
5.0-10	5.0-10
B 3.1-39	B 3.1-39
B 3.1-40	B 3.1-40
B 3.1-44	B 3.1-44
B 3.3-16	B 3.3-16
B 3.3-17	B 3.3-17
B 3.3-27 thru B 3.3-32	B 3.3-27 thru B 3.3-32
B 3.3-40	B 3.3-40
B 3.3-41	B 3.3-41
B 3.3-49	B 3.3-49
B 3.3-50	B 3.3-50
B 3.3-51	B 3.3-51
B 3.3-52	B 3.3-52
B 3.3-58	B 3.3-58
B 3.3-68	B 3.3-68
B 3.3-69	B 3.3-69
B 3.3-74	B 3.3-74
B 3.3-77	B 3.3-77
B 3.3-78	B 3.3-78
B 3.3-81	B 3.3-81
B 3.3-82	B 3.3-82
B 3.3-83	B 3.3-83
B 3.3-90	B 3.3-90
B 3.3-91	B 3.3-91
B 3.3-107	B 3.3-107
B 3.3-122	B 3.3-122
B 3.3-123	B 3.3-123
B 3.3-124	B 3.3-124
B 3.3-133	B 3.3-133
B 3.3-134	B 3.3-134

Remove

B 3.3-141
B 3.3-142
B 3.3-158
B 3.3-159
B 3.3-160
B 3.3-161
B 3.3-169
B 3.3-170
B 3.3-177
B 3.3-184
B 3.3-198
B 3.3-199
B 3.4-12
B 3.4-23
B 3.5-11
B 3.5-12
B 3.5-13
B 3.5-14
B 3.5-26
B 3.5-27
B 3.6-4
B 3.6-5
B 3.6-23 thru B 3.6-27
B 3.6-35
B 3.6-40
B 3.6-45
B 3.6-46
B 3.6-67
B 3.6-68
B 3.6-82
B 3.6-88
B 3.6-89
B 3.6-96
B 3.7-13
B 3.7-16
B 3.7-23
B 3.7-24
B 3.7-30
B 3.7-36
B 3.7-37
B 3.8-23 thru B 3.8-84

Insert

B 3.3-141
B 3.3-142
B 3.3-158
B 3.3-159
B 3.3-160
B 3.3-161
B 3.3-169
B 3.3-170
B 3.3-177
B 3.3-184
B 3.3-198
B 3.3-199
B 3.4-12
B 3.4-23
B 3.4-11
B 3.4-12
B 3.4-13
B 3.5-14
B 3.5-26
B 3.5-27
B 3.6-4
B 3.6-5
B 3.6-23 thru B 3.6-27
B 3.6-35
B 3.6-40
B 3.6-45
B 3.6-46
B 3.6-67
B 3.6-68
B 3.6-82
B 3.6-88
B 3.6-89
B 3.6-96
B 3.7-13
B 3.7-16
B 3.7-23
B 3.7-24
B 3.7-30
B 3.7-36
B 3.7-37
B 3.8-23 thru B 3.8-84

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 232 TO
RENEWED FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 174 TO
RENEWED 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 September 20, 2001, as supplemented by letters dated March 27 and April 12, 2002, Southern Nuclear Operating Company, Inc. (Southern Nuclear, the licensee), et al., proposed license amendments to change the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2. The proposed changes would support extension of the operating cycle from 18 months to 24 months. The supplemental letters dated March 27 and April 12, 2002, provided clarifying information that did not change the scope of the September 20, 2001, application nor the initial proposed no significant hazards consideration determination.

In its submittals, the licensee has:

1. Proposed revisions to extend Surveillance Requirements (SR) intervals from 18 months to 24 months on the basis of the Hatch Performance History Review and Hatch Instrument Drift Study.
2. Proposed revisions to reduce SR intervals from 18 months to 6 months on the basis of Hatch Performance History Review, Hatch Instrument Drift Study, and the plants preferred operational and testing procedures.
3. Proposed allowable value revisions on the basis of Hatch Instrument Drift Study and Hatch Instrument Setpoint Methodology.
4. Proposed administrative revisions to the TS Bases supporting the preceding areas of revision.

2.0 BACKGROUND

Improved reactor fuels allow licensees to consider an increase in the duration of the fuel cycle for their facilities. The staff has reviewed requests for individual plants to modify TS surveillance intervals to be compatible with a 24-month fuel cycle. The staff issued Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," on April 2, 1991, to provide generic guidance to licensees for preparing such license amendment requests. The changes to the TS involve two different types of changes: one kind of change involves the change in calibration frequencies, while the other change includes the remaining surveillances. In accordance with GL 91-04, the licensee should provide the following information to provide an acceptable basis for increasing the calibration interval for instruments that are used to perform safety functions:

- (1) Confirm that instrument drift as determined by as-found and as-left calibration data from surveillance and maintenance records have not, except on rare occasions, exceeded acceptable limits for a calibration interval.
- (2) Confirm that the values of drift for each instrument type (make, model, and range) and application have been determined with a high probability and a high degree of confidence. Provide a summary of the methodology and assumptions used to determine the rate of instrument drift with time based upon historical plant calibration data.
- (3) Confirm that the magnitude of instrument drift has been determined with a high probability and a high degree of confidence for a bounding calibration interval of 30 months for each instrument type (make, model number, and range) and application that performs a safety function. Provide a list of the channels by TS section that identifies these instrument applications.
- (4) Confirm that a comparison of the projected instrument drift errors has been made with the values of drift used in the setpoint analysis. If this results in revised setpoints to accommodate large drift errors, provide proposed TS changes to update trip setpoints. If the drift errors result in a revised safety analysis to support existing setpoints, provide a summary of the updated analysis conclusions to confirm that safety limits and safety analysis assumptions are not exceeded.
- (5) Confirm that the projected instrument errors caused by drift are acceptable for control of plant parameters to effect a safe shutdown with the associated instrumentation.
- (6) Confirm that all conditions and assumptions of the setpoint and safety analyses have been checked and are appropriately reflected in the acceptance criteria of plant surveillance procedures for channel checks, channel functional tests, and channel calibrations.
- (7) Provide a summary description of the program for monitoring and assessing the effects of increased calibration surveillance intervals on instrument drift and its effect on safety.

3.0 EVALUATION

3.1 Instrumentation Surveillances

The licensee proposes to extend the surveillance test interval from 18 months to 24 months for the SR 3.3.1.1.11 (Unit 1 from 184 days to 24 months), 3.3.1.1.12, 3.3.1.1.13, 3.3.1.1.15, 3.3.1.1.16, 3.3.1.1.17, 3.3.1.2.7, 3.3.2.1.4, 3.3.2.1.5, 3.3.2.1.6, 3.3.2.1.7, 3.3.2.2.2, 3.3.2.2.3, 3.3.3.1.2, 3.3.3.2.2, 3.3.3.2.3, 3.3.4.1.2 (Unit 1 from 184 days to 24 months), 3.3.4.1.3, 3.3.4.1.4, 3.3.4.1.4, 3.3.4.1.5, 3.3.4.2.3, 3.3.4.2.4, 3.3.5.1.4, 3.3.5.1.5, 3.3.5.2.4, 3.3.5.2.5, 3.3.6.1.5, 3.3.6.1.6, 3.3.6.1.7 (Unit 2 only), 3.3.6.2.4, 3.3.6.2.5, 3.3.6.3.5, 3.3.6.3.6, 3.3.7.1.4, 3.3.8.2.2, 3.3.8.2.3, 3.4.5.3, and 3.6.3.1.3 (Unit 2 only).

The licensee performed a safety assessment for the proposed changes to the surveillance test intervals in accordance with the GL 91-04 guidance stated above. This assessment entailed reviewing the historical maintenance and surveillance test data at the bounding surveillance test interval limit, performing an evaluation to ensure that a 24-month surveillance test interval would not invalidate any assumption in the plant licensing bases, and determining that the effect of the surveillance interval extension is small. The licensee performed analyses of drift for all affected instrument loops in order to establish the effect of a 30-month (24 months + 25 percent allowable tolerance) calibration frequency on instrument performance using plant-specific Instrument Drift Analysis Methodology. This methodology is based on the Electric Power Research Institute (EPRI) TR-103335, "Guidelines for Instrument Calibration Extension/Reduction Programs," Revision 1, October 1998. The licensee has used Microsoft Excel spreadsheets to perform the drift analysis. Since the Microsoft Excel spreadsheets were not documented with appropriate quality assurance controls, the licensee has verified the computations by using hand verification and alternate software, such as the EPRI Instrument Performance Analysis Software System, Revision 2, and Lotus 1-2-3 spreadsheets.

However, EPRI TR-103335 has not been approved by the staff. By letter dated December 1, 1997, from T. H. Essig, NRC, to R. W. James, EPRI, the staff issued a status report documenting its concerns with TR-103335. In Enclosure 2 of the submittal dated March 27, 2002, the licensee addressed all the concerns that the staff identified in its December 1, 1997, status report. The March 27, 2002, submittal also answered staff concerns with the licensee's sample data, outlier determination, time dependency, and other miscellaneous items.

The licensee has used a plant-specific instrument setpoint methodology similar to that used by General Electric (GE) and documented in GE topical report NEDC-31336, "General Electric Instrument Setpoint Methodology," that has previously been approved by the staff. The staff previously has also approved the Hatch plant-specific setpoint methodology as documented in License Amendment 103 and 121. The staff has determined that the licensee has addressed the issues identified in GL 91-04 and the licensee has provided an acceptable basis for increasing the calibration interval for instruments that are used to perform safety functions. On the basis of its evaluation, the staff concludes that the licensee has confirmed that safety limits and safety analysis assumptions will not be exceeded after the worst-case drift is considered for the instruments for which the surveillance intervals will be extended to 24 months.

For other 18-month surveillances, GL 91-04 requires licensees to evaluate the effect on safety of the change in surveillance intervals to accommodate a 24-month fuel cycle. This evaluation should support a conclusion that the effect on safety is small. In addition, licensees should

confirm that the historical surveillance data do not invalidate this conclusion. Licensees should confirm that the performance of a surveillance at the bounding surveillance interval limit provided to accommodate a 24-month fuel cycle would not invalidate any assumption in the plant licensing basis. In consideration of these confirmations, the licensees need not quantify the effect of the change in surveillance intervals on the availability of individual systems or components.

To address the requirements of the GL 91-04, the licensee has referenced the NRC Safety Evaluation (SE) dated August 2, 1993, relating to the extension of the Peach Bottom, Units 2 and 3, surveillance intervals from 18 months to 24 months. In this SE, the staff stated the following:

Industry reliability studies for boiling water reactors (BWRs), prepared by the BWR Owners Group (NEDC-30936P) show that the overall safety systems' reliabilities are not dominated by the reliabilities of the logic system, but by that of the mechanical components, (e.g., pumps and valves), which are consequently tested on a more frequent basis. Since the probability of a relay, or contact failure is small relative to the probability of mechanical component failure, increasing the logic system functional test interval represents no significant change in the overall safety system unavailability.

The licensee has also reviewed the surveillance test history at the Hatch plant and has validated this conclusion. The licensee's review has demonstrated that there are no failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

The staff questioned the applicability of GL 91-04 for extending SR 3.3.1.1.11 and 3.3.4.1.2 from 184 days to 24 months. In its letter of April 12, 2002, the licensee explained that these surveillances are taking place at 18-month intervals in Unit 2, and there is no difference between Units 1 and 2. Also, the surveillance test history for these components has demonstrated that there are no failures that would have any significant change in the overall safety system availability. On the basis of this information, the staff finds these other surveillance test interval extensions acceptable.

In its original request, the licensee included the following additional changes to TS:

1. Change SR 3.3.5.1.3 and 3.3.5.2.3 from 3 months to 24 months and also change the surveillance to a channel functional test (CFT) instead of a channel calibration test.
2. In TS Table 3.3.1.1-1, function 7.a, associated with scram discharge volume water level resistance temperature detector, change the Surveillance Requirement from SR 3.3.1.1.9 to SR 3.3.1.1.2, which changes the CFT interval from 3 months to 24 months.
3. In TS Table 3.3.1.1-1, function 7.b, associated with scram discharge volume water level float switch, change the Surveillance Requirement from SR 3.3.1.1.13 to 3.3.1.1.12, which changes channel calibration test to CFT.
4. Change SR 3.3.6.1.4 from a CFT to channel calibration and delete the SR 3.3.6.1.5 for functions 3.g and 4.f.

The staff questioned the applicability of GL 91-04 to extend the surveillance test interval from three months to 24 months and the basis for changing the channel calibration to CFT. The licensee, in its letter of March 27, 2002, withdrew these changes.

3.2 Reactor Protection System Electric Power Monitoring System

The licensee has changed SR 3.3.8.2.2 and SR 3.3.8.2.3, associated with the Reactor Protection System (RPS) electric power monitoring system, to revise the channel calibration and logic system functional test interval from 18 months to 184 days. The licensee has also deleted the applicability of SR 3.3.6.1.5 from TS Table 3.3.6.1-1 for Functions 3.g and 4.f and changed SR 3.3.6.1.4 from a CFT to channel calibration.

The licensee has proposed to reduce the channel calibration interval for the RPS electric power monitoring system on the basis of the drift analysis performed to meet the GL 91-04 requirement. The drift associated with the instrument will support the maximum interval of 230 days (includes 25 percent tolerance) for the current nominal trip setpoint and allowable value (AV). Based on the component reliability evaluation, the licensee has also reduced the test interval for logic system functional testing from 18 months to 184 days. The licensee has changed the SR 3.3.6.1.4 from a CFT to channel calibration and kept the test interval of 184 days. This SR is applicable to Functions 3.g and 4.f listed in TS Table 3.3.6.1-1. The licensee has deleted SR 3.3.6.1.5 for those functions that required channel calibration every 18 months. By making these changes, the licensee in effect has changed the channel calibration test interval from 18 months to 184 days as the channel calibration test includes the CFT. Since the proposed changes are more restrictive than the current technical specifications and are based on the analysis performed to meet GL 91-04 requirements, the staff finds the proposed TS and Bases changes acceptable.

3.3 Low Pressure Coolant Injection Pump Start Time Delay

The licensee has proposed to revise the AV for TS Table 3.3.5.1-1, function 2.f for the low pressure coolant injection (LPCI) pump start time delay for pumps A, B, and D from ≥ 9 seconds and ≤ 11 seconds to ≥ 9 seconds and ≤ 15 seconds.

The licensee has proposed to change the AV on the basis of the drift analysis performed to meet the GL 91-04 requirement. On the basis of the drift value, the licensee decided to change the upper value of the AV that will also accommodate the loss of coolant analysis (LOCA). The current Hatch analysis assumes the maximum allowable time delay from the LOCA initiating signal to the operation of the LPCI pumps at rated speed of 64 seconds. The proposed AV will continue to support the ECCS instrumentation function as assumed in the safety analysis. On this basis, the staff finds the proposed TS and Bases changes acceptable.

3.4 Standby Liquid Control (SLC) System - TS 3.1.7.8 and 3.1.7.9

The flow path through one SLC subsystem is verified per TS 3.1.7.8 during every refueling outage. This test could inadvertently cause a reactor transient. Therefore, to decrease the potential impact of the test, it is performed during outage conditions. In addition, the flow path through the heat traced piping between the storage tank and pump suction is verified per TS 3.1.7.9 during every refueling outage. The SLC pumps are tested every quarter in accordance with TS 3.1.7.7 to verify operability. Similarly, the pipe heat tracing and pump suction heat

tracing are verified every 24 hours per TS 3.1.7.2 and 3.1.7.3 to preclude precipitation of the boron solution and subsequent flow blockage. If heat tracing is lost, then the flow path through one SLC subsystem must be verified per TS 3.1.7.8 within 24 hours of the heat tracing being restored. A review of the surveillance history demonstrated that this subsystem had no previous failures. Based on the subsystem checks required by the other TS sections and the history of the subsystem surveillance, the staff finds that the proposed TS and Bases changes are acceptable.

3.5 Scram Discharge Volume Vent and Drain Valves - TS 3.1.8.3

This TS confirms that the scram discharge volume vent and drain valve closes in less than 45 seconds after scram initiation and opens when the scram signal is reset. This test needs to be performed during outage conditions. The valves are manually cycled every 92 days per TS 3.1.8.2. Additionally, it has been previously demonstrated that the failure rate of components is dominated by the mechanical components, not of the logic systems. A review of the surveillance history demonstrated that the logic subsystem for the scram discharge volume vent and drain valves had no previous failures. Based on the manual cycling of the valves to ensure that the valves are operable, as required by TS 3.1.8.2, and the history of prior logic subsystem performance, the staff finds the proposed TS and Bases changes acceptable.

3.6 Emergency Core Cooling System (ECCS) - Operating - TS 3.5.1.9, 3.5.1.10, 3.5.1.11, 3.5.1.12, and 3.5.1.13

TS 3.5.1.9 confirms that the high pressure coolant injection (HPCI) pump can develop the necessary flow rate against the system head corresponding to reactor system pressure. This test needs to be performed just before or during a startup following a plant outage. A review of the surveillance history demonstrated that this surveillance had one previous failure. This failure was caused by the electronic governor magnetic pickup speed controller. Based on the failure during previous tests not being a time-dependent failure mechanism and the history of successful system surveillance, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

The ECCS injection/spray subsystem actuation is verified by TS 3.5.1.10 during every refueling outage. This surveillance ensures that the entire system, including all the subsystems (HPCI, core spray (CS), and LPCI), function as intended following an ECCS initiation signal. This test needs to be performed during outage conditions since it has the potential to initiate an unplanned transient if performed at operating conditions. A review of the surveillance history demonstrated that this surveillance had two previous failures. Both failures were caused by relay failures, one of which was traced to the initiation signal being out of adjustment. Based on the failures during previous tests not being time-dependent failure mechanisms and the history of successful surveillance, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

Automatic depressurization system (ADS) actuation following an initiation signal is verified by TS 3.5.1.11 during every refueling outage. This surveillance ensures that the mechanical components of the ADS system are functioning properly. This test needs to be performed during outage conditions since it has the potential to initiate an unplanned transient if performed during operating conditions. A review of the surveillance history demonstrated that most of the components pass this surveillance. Based on the history of prior surveillance, overlap between

this required TS surveillance and other surveillances, and redundancies in the ADS, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

The TS 3.5.1.12 surveillance verifies that the pilot disc rod lifts when the actuator strokes the ADS valve following actuation. Other tests verify operation of the remaining components of the valve. A review of the surveillance history demonstrated that the failures that have occurred are not time-dependent failures. Based on the history of prior surveillance testing and the testing of the other valve components, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

The ECCS injection/spray subsystem response time is verified by TS 3.5.1.13 (for Unit 2 only) during every refueling outage. This surveillance ensures that the entire system, including all the subsystems (HPCI, CS, and LPCI), function as intended within the time limits used in the accident analysis. This test needs to be performed during outage conditions since it has the potential to initiate an unplanned transient if performed during operating conditions. A review of the surveillance history demonstrated that the surveillance has usually passed. Based on the history of prior surveillance, testing of the components through the inservice testing (IST) program and testing performed on these systems as required by other TSs, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

3.7 ECCS - Shutdown - TS 3.5.2.6

The ECCS injection/spray subsystem actuation is verified during shutdown by TS 3.5.2.6. This surveillance ensures that the entire system, including all the subsystems, functions as intended following an ECCS initiation signal. A review of the surveillance history demonstrated that this surveillance had two previous failures. Both failures were caused by relay failures, one of which was traced to the initiation signal being out of adjustment. Based on the failures during previous tests not being time-dependent failure mechanisms and the history of successful surveillance, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

3.8 Reactor Core Isolation Cooling (RCIC) System - TS 3.5.3.4 and TS 3.5.3.5

TS 3.5.3.4 confirms that the RCIC pump can develop the necessary flow rate against the system head corresponding to reactor system pressure. This test needs to be performed just before or during a startup following a plant outage. Additionally, TS 3.5.3.3 requires that RCIC be tested every 3 months to ensure required flow at normal operating pressure can be achieved. Based on TS 3.5.3.3, which specifies quarterly tests of the system at normal operating pressure and would be able to identify any failures that would prevent the system from functioning if needed, the staff finds that the proposed TS and Bases changes are acceptable.

RCIC system actuation following an initiation signal is verified by TS 3.5.3.5 during every refueling outage. This surveillance ensures that the RCIC system will operate, as designed, if initiation occurs. RCIC is not credited in any accident analyses and the system has similar functionality as the HPCI system. In addition to the testing in TS 3.5.3.5, the pumps and valves of the RCIC system are tested by the IST program, and the logic system is tested by TS

3.3.5.3.5. Based on the history of prior surveillance, and overlap with the TS required logic surveillance and IST program, the staff finds the proposed TS and Bases changes to extend the test interval in support of a 24-month operating cycle acceptable.

3.9 Primary Containment - TS 3.6.1.1

The function of the primary containment is to isolate and contain fission products released from the reactor following a design basis accident (DBA) and to confine the postulated release of radioactive material.

SR 3.6.1.1.2 states, "Verify drywell to suppression chamber differential pressure does not decrease at a rate greater than 0.25 inch water gauge per minute tested over a 10-minute period at an initial differential pressure of 1 psid."

This SR measures drywell to suppression chamber differential pressure during a 10-minute period to ensure that the leakage paths that would bypass the suppression pool are within allowable limits. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The licensee is retaining the test failure criteria that requires after two consecutive tests fail the test be performed at a 9-month interval until two consecutive tests pass.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.10 Primary Containment Isolation Valves (PCIVs) - TS 3.6.1.3

The function of the PCIVs, in combination with other accident mitigation systems, is to limit fission product release during and following postulated DBAs to within limits.

SR 3.6.1.3.7 states, "Verify each automatic PCIV, excluding excess flow check valves (EFCVs), actuates to the isolation position on an actual or simulated isolation signal."

This SR ensures each automatic PCIV will actuate to its isolation position on a primary containment isolation signal. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The Logic System Functional Test in SR 3.3.6.1.6 overlaps this SR to provide complete testing of the safety function.

- During the operating cycle, PCIVs are either exercised (closed or open) or partially stroked (open or closed) in accordance with the IST program. The exercising of these valves during IST cycling tests the movement of the PCIVs and detects failures associated with valve movement.
- The PCIVs, including the actuating logic, are designed to be single failure proof and, therefore, are highly reliable.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.1.3.8 states, "Verify each reactor instrumentation line EFCV actuates to restrict flow to within limits."

This SR requires a demonstration that each reactor instrumentation line EFCV is OPERABLE by verifying that the valve reduces flow to within limits on an actual or simulated instrument line break condition. This SR ensures the instrumentation line EFCVs will perform as designed. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The operational mechanism for an EFCV is not subject to drift or other time-based changes affected by the change to a 24-month cycle.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.1.3.9 states, "Remove and test the explosive squib from each shear isolation valve of the traversing in-core (TIP) system."

The TIP shear isolation valves are actuated by explosive charges. An in-place functional test is not possible with this design. The explosive squib is removed and tested to provide assurance that the valves will actuate when required. The surveillance test interval is being increased from once every 18 months on a staggered test basis to once every 24 months on a staggered test basis, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The replacement charge for the explosive squib is taken from the same manufactured batch as the one fired or from another batch that was certified by having one squib from the batch successfully fired.
- These shear valves are considered to only be a manually actuated backup to the automatic isolation valves for the TIPs.
- There are frequent checks of circuit continuity (every 31 days) per SR 3.6.1.3.4.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.1.3.11 for Unit 1 and SR 3.6.1.3.12 for Unit 2 states, "Replace the valve seat of each 18-inch purge valve having a resilient material seat."

The valve seat of each 18-inch purge valve (supply and exhaust) have resilient seats. The purpose of replacing the seats every outage is to allow the opportunity for repair before gross leakage failure develops. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- Frequent replacement (every outage) of the resilient material valve seats provides assurance that gross leakage will not develop.
- The licensee's operational experience shows that gross leakage normally does not occur when the valve seats are replaced on an 18-month interval since the tests are normally passed.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.1.3.12 for Unit 1 and SR 3.6.1.3.13 for Unit 2 states, "Cycle each 18-inch excess flow isolation damper to the fully closed and fully open position."

This SR ensures the excess flow isolation dampers can close following an isolation signal. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The operational mechanism for these valves is not subject to drift or other time-based changes affected by the change to a 24-month cycle.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.11 Low-Low Set (LLS) Valves - TS 3.6.1.6

Four safety/relief valves (S/RVs) are equipped to provide the LLS function. The LLS logic causes the LLS valves to be opened at a lower pressure than the relief or safety mode pressure setpoints (S/RVs operate in three modes; safety, ADS, or LLS) and stay open longer so that reopening more than one S/RV is prevented on subsequent actuations. Therefore, the LLS function prevents excessive short-duration S/RV cycles with valve actuation at the relief setpoint.

SR 3.6.1.6.1 states, "Verify each LLS valve relief mode actuator strokes when manually actuated."

This SR verifies that the actuator will stroke when manually actuated. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The pneumatic actuator of each LLS valve is stroked to verify that the pilot disc rod lifts when the actuator strokes. Pilot rod lift is determined by measurement of rod travel. No time-based failure modes that would prevent the valve from opening during operation were identified by the licensee. Also, no time-based blockage mechanisms were identified.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.1.6.2 states, "Verify the LLS System actuates on an actual or simulated automatic initiation signal. [Note: Valve actuation may be excluded.]"

The LLS designated S/RVs are required to actuate automatically upon receipt of specific initiation signals. A system functional test is performed to verify that the mechanical portions (solenoids) of the LLS function operate as designated when initiated either by an actual or simulated automatic initiation signal. The note that excludes valve actuation prevents an reactor pressure vessel pressure blowdown. The surveillance test interval is being increased

from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- Other testing verifies the operation of the circuit and relief mode actuator operation. This is accomplished by conducting the logic system functional test in SR 3.3.6.3.6 that overlaps SR 3.6.1.6.2 to provide complete testing of the safety function.
- The LLS has built-in redundancy in that four S/RVs are designated to perform the LLS function, but only three are required so that no single failure prevents the opening of the required number of LLS valves.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.12 Reactor Building-to-Suppression Chamber Vacuum Breakers - TS 3.6.1.7

The function of the reactor building-to-suppression chamber vacuum breakers is to relieve vacuum when primary containment depressurizes below reactor building pressure.

SR 3.6.1.7.3 states, "Verify the opening setpoint of each vacuum breaker is ≤ 0.5 psid."

The purpose of this SR is to demonstrate the vacuum breaker setpoint. This is necessary to ensure the safety analysis assumption that is predicated on the vacuum breakers being full open at ≤ 0.5 psid. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- More frequent functional testing of the vacuum breakers is conducted in accordance with the IST program per SR 3.6.1.7.2.
- The system is designed to be single failure proof.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.13 Suppression Chamber-to-Drywell Vacuum Breakers - TS 3.6.1.8

The function of the suppression chamber-to-drywell vacuum breakers is to relieve vacuum in the drywell.

SR 3.6.1.8.3 states, "Verify the opening setpoint of each required vacuum breaker is ≤ 0.5 psid."

This SR is necessary to demonstrate the vacuum breaker opening setpoint that ensures the safety analysis assumption regarding vacuum breaker full open differential pressure of ≤ 0.5 psid is valid. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- More frequent functional testing of the vacuum breakers is conducting in accordance with the IST program per SR 3.6.1.8.2.
- The system is designed to be single failure proof.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.14 Primary Containment Hydrogen Recombiners - TS 3.6.3.1 (Unit 2 only)

The function of the primary containment hydrogen recombiner is to eliminate the potential breach of primary containment that would result due to a hydrogen-oxygen reaction and is part of combustible gas control required by 10 CFR 50.44, "Standards for Combustible Gas Control Systems in Light-Water-Cooled Reactors," and General Design Criterion 41, "Containment Atmosphere Cleanup."

SR 3.6.3.1.1 states, "Perform a system functional test for each primary containment hydrogen recombiner." (Unit 2 only)

Performance of a system functional test for each primary containment hydrogen recombiner ensures the recombiners are operable and can attain and sustain the temperature necessary for hydrogen recombination. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- There are two redundant and independent hydrogen recombiner systems.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.3.1.2 states, "Visually examine each primary containment hydrogen recombiner enclosure and verify there is no evidence of abnormal conditions." (Unit 2 Only)

This SR ensures there are no physical problems that could affect recombiner operation. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- Since the recombiners are mechanically passive, except for the blower assemblies, they are subject to only minimal mechanical failure. The only credible failures involve loss of power or blower function, blockage of the internal flow path, missile impact, etc., none of which are time-based degradations. A visual inspection is sufficient to determine abnormal conditions that could cause such failures.
- There are two redundant and independent hydrogen recombiner systems.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.3.1.3 states, "Perform a resistance to ground test for each heater phase." (Unit 2 only.)

This SR requires performance of a resistance-to-ground test of each heater phase of the hydrogen recombiner system to make sure that there are no detectable grounds in any heater phase. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The development of a ground in a heater circuit is not a time-based mechanism.
- There are two redundant and independent hydrogen recombiner systems.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.15 Secondary Containment - TS 3.6.4.1

The function of the secondary containment is to contain, dilute, and hold up fission products that may leak from primary containment following a DBA.

SR 3.6.4.1.3 states, "Verify required SGT [Standby Gas Treatment] subsystem(s) will draw down the secondary containment to ≥ 0.20 inch of vacuum water gauge in ≤ 120 seconds."

The purpose of this SR is to ensure that all fission products are appropriately processed. This is done by verifying that the SGT system will rapidly establish and maintain a negative pressure in the secondary containment. The surveillance test interval is being increased from once every 18 months on a staggered test basis, to once every 24 months on a staggered test basis, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The test confirms that the secondary containment boundary is intact and there are no identified time-based degradations that will cause failure of this test since this test.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.6.4.1.4 states, "Verify required SGT subsystem(s) can maintain ≥ 0.20 inch of vacuum water gauge in the secondary containment for 1 hour at a flow rate ≤ 4000 cfm for each subsystem."

This SR, by demonstrating the required vacuum can be maintained for an hour, allows the secondary containment to be in thermal equilibrium at steady state conditions and confirms that the secondary containment boundary is intact. The surveillance test interval is being increased from once every 18 months on a staggered test basis to once every 24 months on a staggered test basis, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The test confirms that the secondary containment boundary is intact and there are no identified time-based degradations that will cause failure of this test.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.16 Secondary Containment Isolation Valves (SCIVs) - TS 3.6.4.2

The function of the SCIVs, in combination with other accident mitigation systems, is to limit fission product release during and following postulated DBAs. Secondary containment isolation within the time limits specified for the isolation valves designed to close automatically ensures fission products are captured within the secondary containment boundary.

SR 3.6.4.2.3 states, "Verify each automatic SCIV actuates to the isolation position on an actual or simulated actuation signal."

This SR ensures each automatic SCIV will actuate to the isolation position on a secondary containment isolation signal. By doing so, this SR ensures the availability of safety functions that respond to plant transients and design basis events. The surveillance test interval is being increased from once every 18 months on a staggered test basis to once every 24 months on a staggered test basis, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The Logic System Functional Test required by SR 3.3.6.2.5 overlaps this SR to provide complete testing of the safety function.
- The isolation time of each power operated and each automatic SCIV is verified to be within limits by conducting SR 3.6.4.2.2 (every 184 days).
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.17 Standby Gas Treatment System - TS 3.6.4.3

The SGT system is required by 10 CFR Part 50, Appendix A, GDC 41, "Containment Atmosphere Cleanup." The function of the SGT system is to ensure gaseous effluent containing radioactive material that leak from the primary containment into the secondary containment following a DBA are filtered and adsorbed prior to exhausting the effluent to the environment.

SR 3.6.4.3.3 states, "Verify each required SGT subsystem actuates on an actual or simulated initiation signal."

This SR verifies that each required Unit 1 and Unit 2 SGT subsystem starts on receipt of an actual or simulated initiation signal. By doing so, this SR ensures the availability of safety functions that respond to plant transients and design basis events. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- This system is regularly operated (every 31 days) to satisfy the requirements of SR 3.6.4.3.1.
- The SGT system is designed with redundancy to meet the single active failure criteria that will ensure system availability in the event of a failure of one of the system components.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.18 Plant Service Water (PSW) System and Ultimate Heat Sink (UHS) - TS 3.7.2

The PSW system is designed to provide cooling water for the removal of heat from equipment required for a safe reactor shutdown following a DBA or transient. The PSW system also provides cooling to unit components, as required, during normal shutdown. The PSW system consists of the UHS and two independent and redundant subsystems.

SR 3.7.2.3 states, "Verify each PSW subsystem actuates on an actual or simulated initiation signal."

This SR verifies that the automatic isolation valves of the PSW system will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety-related equipment during an accident event. By doing so, this SR ensures the availability of safety functions that respond to plant transients and design basis events. This SR also verifies the automatic start capability of one of the two PSW pumps in each subsystem. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The valves are also operated to satisfy IST requirements.
- The PSW system consists of the UHS and two independent and redundant subsystems that will ensure system availability in the event of a failure of one of the system components.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.19 Diesel Generator (DG) 1B Standby Service Water (SSW) System - TS 3.7.3

The DG 1B SSW system is designed to provide cooling water for the removal of heat from the DG 1B. DG 1B is the only component served by the DG 1B SSW system. The ability of the

DG 1B SSW system to provide adequate cooling to the DG 1B is an implicit assumption for the safety analysis presented in the Updated Final Safety Analysis Report. The ability to provide onsite emergency AC power is dependent upon the ability of the DG 1B SSW system to cool DG 1B.

SR 3.7.3.2 states, "Verify the DG 1B SSW system pump starts automatically when DG 1B starts and energizes the respective bus."

This SR ensures the DG 1B SSW system pump will automatically start to provide required cooling to the DG 1B when the DG 1B starts and the respective bus is energized. By doing so, this SR ensures the availability of safety functions that respond to plant transients and design basis events. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The operability of the DG 1B SSW system is based upon having an operable pump and an operable flow path. Valve lineup is checked more frequently by SR 3.7.3.1 (every 31 days).
- The capability exists to manually cross connect the PSW system to supply cooling to the DG 1B when the SSW pump is inoperable.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.20 Main Control Room (MCR) Environmental Control (MCREC) System - TS 3.7.4

The MCREC system provides a radiologically-controlled environment from which the plant can be safely operated following a DBA. The safety related function of the MCREC system includes two independent and redundant high efficiency air filtration subsystems for emergency treatment of recirculated air and outside supply air.

SR 3.7.4.3 states, "Verify each MCREC subsystem actuates on an actual or simulated initiation signal."

This SR verifies that on an actual or simulated initiation signal, each MCREC subsystem starts and operates. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The Logic System Functional Test in SR 3.3.7.1.4 overlaps this SR to provide complete testing of the safety function.
- The MCREC subsystem is operated more frequently (every 31 days) to satisfy the requirements of SR 3.7.4.
- The MCREC system active components and power supplies are designed with redundancy to meet the single active failure criteria that will ensure system availability in the event of a failure of one of the system components.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.7.4.4 states, "Verify each MCREC subsystem can maintain a positive pressure of ≥ 0.1 inches water gauge relative to the turbine building during the pressurization mode of operation at a subsystem flow rate of ≤ 2750 cfm and an outside air flow rate ≤ 400 cfm."

This SR verifies the integrity of the MCR enclosure and the assumed leakage rates of potentially contaminated air. The MCR positive pressure, relative to potentially contaminated adjacent areas (the turbine building), is periodically tested to verify proper function of the MCREC system. The surveillance test interval is being increased from once every 18 months on a staggered test basis to once every 24 months on a staggered test basis, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The MCREC system is operated for 15 minutes or greater on a more frequent basis per SR 3.7.4.1 (every 31 days).
- The filters are tested in accordance with the Ventilation Filter Test Program per SR 3.7.4.2.
- There are two independent MCREC subsystems that are each capable of fulfilling the stated safety function, and the system is designed considering single active failures.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.21 Control Room Air Conditioning (AC) System - TS 3.7.5

The purpose of the control room AC system is to provide a controlled environment under both normal and accident conditions. Two subsystems provide the required temperature control to maintain a suitable MCR environment for a sustained occupancy of 14 persons.

SR 3.7.5.1 states, "Verify each control room AC subsystem has the capability to remove the assumed heat load."

This SR verifies that the heat removal capability of the system is sufficient to remove the MCR heat load assumed in the safety analysis. This SR consists of a combination of testing and calculation. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The system is normally operating; thus, any major malfunction of the cooling units (during summer months) will be detected by Operations personnel and corrected.
- The control room AC system is designed to be highly reliable. It has built-in redundancy as components are arranged in three 50 percent capacity safety-related subsystems. A single failure of a component of the control room AC system, assuming a loss of offsite power, does not impair the ability of the system to perform its design function.
- Redundant detectors and controls are provided for MCR temperature control.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.22 Main Turbine Bypass System - TS 3.7.7

The main turbine bypass system is designed to control steam pressure when reactor steam generation exceeds turbine requirements during unit startup, sudden load reduction, and cooldown. It allows excess steam flow from the reactor to the condenser without going through the turbine.

SR 3.7.7.2 states, "Perform a system functional test."

This SR ensures the main turbine bypass system will function as designed in response to steam demand changes within the capability of the system. The main turbine bypass system is required to actuate automatically to perform its design function. This SR demonstrates that, with the required system initiation signals, the valves will actuate to their required positions. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- Operation of the turbine bypass valves is verified more frequently per SR 3.7.7.1 (every 31 days). This testing ensures a significant portion of the circuitry is operating properly and will detect significant failures of this circuitry.
- The network, including the actuating logic, is designed to be highly reliable.
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

SR 3.7.7.3 states, "Verify the Turbine Bypass System Response Time is within limits."

This SR ensures the turbine bypass system response time is in compliance with the assumptions of the appropriate safety analysis. The surveillance test interval is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

System availability during the operating cycle is assured by the following:

- The system components are verified to be operating properly throughout the operating cycle by the performance of SR 3.7.7.1 (every 31 days) that requires a complete cycle of each main turbine bypass valve. This SR would detect significant changes in valve stroke time.
- Power availability is verified by other TS requirements. (Signal development time and timing of power availability are sub-items of this surveillance and are not required to be individually verified either by TS or the Technical Requirements Manual.)
- The licensee's review of surveillance test history did not identify any test failures that would invalidate the conclusion that the impact, if any, on system availability is minimal from a change to a 24-month operating cycle.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.23 Ventilation Filter Testing Program (VFTP) - TS 5.5.7

Technical Specification 5.5.7 reads as follows:

"The VFTP will establish the required testing of engineered safety feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2, Sections C.5.c and C.5.d and at least once per 18 months, or 1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, 2) following painting, fire or chemical release in any ventilation zone communicating with the system, or 3) after every 720 hours of charcoal adsorber operation."

The requirement “and at least once per 18 months” is being removed from this specification for consistency with the treatment of other programs specified in TS 5.5, “Programs and Manuals.” The frequencies for routine surveillance testing are specified and controlled in the VFTP.

The staff concludes that this change is acceptable because the licensee is still committed to the testing frequencies specified in Regulatory Guide 1.52, “Design Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmospheric Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plant,” Revision 2.

Based on this information, the staff concludes that the effect the proposed change has on plant safety is small and, therefore, acceptable.

3.24 Electrical Systems

The licensee is proposing to extend the surveillance interval for the following electrical system SRs from their current 18-month interval to a 24-month interval in the TS: SR 3.8.1.6, 3.8.1.7, 3.8.1.8, 3.8.1.9, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.15, SR 3.8.1.16, 3.8.1.17, 3.8.4.3, 3.8.4.4, 3.8.4.5, 3.8.4.6, 3.8.4.7

The licensee used the guidance of GL 91-04 to justify the extension of the surveillance intervals from 18 months to 24 months for all of the above SRs. The Hatch design provides substantial redundancy in ac and dc power sources. Breaker verification and periodic breaker maintenance is based upon performance history for the breakers and is designed for maximum availability. The probability of a relay or contact failure is small. The DG starting capability to operate under load is demonstrated every 31 days and DG ability to reach rated speed and frequency within required time limits is demonstrated every 184 days; this will provide prompt identification of any substantial DG degradation or failure. The DG factors that are subject to degradation due to aging, such as fuel oil quality, are subject to the requirements for replenishment and testing. The DGs are infrequently operated; thus, the risk of wear-related degradation is minimal. Historical testing and surveillance testing during operation prove the ability of the diesel engines to start and operate under various load conditions. Through the normal engineering design process, all load additions and deletions are tracked and any changes to loading are verified to be well within the capacity of their power sources. Battery float voltage is periodically monitored during the operating cycle to verify battery operability and provide prompt identification of any substantial battery degradation or failure. Batteries are not discharged except for the performance of the operating cycle test so there is minimal risk of age-related degradation. Battery factors that are subject to degradation due to aging, such as terminal corrosion or battery connection resistance are monitored during the operating cycle; therefore, any substantial degradation will be evident prior to the scheduled performance of these tests.

Additionally, the licensee has conducted a review of the surveillance test history for each of these SRs. This historical review demonstrates that there have been no failures that would invalidate the conclusion that the effect of the extension from 18 to 24 months on system availability and system safety is minimal.

The NRC staff concludes the amended surveillance requirements will provide ample opportunity to identify and correct any substantial breaker, emergency diesel generator, or battery

degradation. The staff also determined that the effect of these changes on safety is small. The changes are, therefore, acceptable.

3.25 Regulatory Commitments

The licensee, in its submittal for this license amendment, has volunteered the following commitments. These commitments are listed and recognized here as contributing to the justification for approval of this license amendment but are not considered to be a license condition. Following are the licensee's voluntary commitments:

1. The maintenance rule (MR) program trends failures which affect the safety functions of equipment. Any degradation in performance due to the extension of surveillance or maintenance activities will be captured under the existing MR program.
2. Instruments with TS calibration surveillance frequencies extended to 24 months will be monitored and trended. As-found and as-left calibration data for each calibration activity will be recorded. This will identify occurrences of instruments found outside of their allowable value or instruments whose performance is not as assumed in the drift or setpoint analysis.

When as-found conditions are outside the allowable value, an evaluation will be performed to determine whether the assumptions made to extend the calibration frequency are still valid and to assess the effect on plant safety and instrument OPERABILITY.

In addition, the licensee's trending program will address setpoints for TS calibration surveillance frequencies extended to 24 months found to be outside of their leave-as-is zone (LAIZ). This LAIZ is based upon either added margin or a portion of the expected drift for the instruments. The licensee's trending program will require that any time a setpoint value is found outside the LAIZ, an additional evaluation be performed to ensure the instruments performance is still enveloped by the assumptions in the drift or setpoint analysis. The trending program will also plot setpoint or transmitter as-found/as-left (AFAL) values to verify that the performance of the instruments is within expected boundaries and that adverse trends (repeated directional changes in AFAL even of smaller magnitudes) are detected and evaluated.

3. Appropriate procedures and programs will be revised prior to, or in conjunction with, implementation of the license amendment.
4. Allowable Value changes will be implemented appropriately in conjunction with the license amendment.

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 (66 FR 59512). 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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