



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

February 24, 1989

Docket No: 50-321

Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P. O. Box 1295
Birmingham, Alabama 35201

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 160 TO FACILITY OPERATING LICENSE DPR-57 -
EDWIN I. HATCH NUCLEAR PLANT, UNIT 1 (TAC 69408)

The Commission has issued the enclosed Amendment No. 160 to Facility Operating License DPR-57 for the Edwin I. Hatch Nuclear Plant, Unit 1. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated September 6, 1988.

The amendment changes the definitions of hot shutdown and cold shutdown and modifies relevant sections of the TS to specify which equipment must be, or need not be, operable during performance of hydrostatic and leakage pressure testing.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

A handwritten signature in cursive script that reads "Lawrence P. Crocker".

Lawrence P. Crocker, Project Manager
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 160 to DPR-57
2. Safety Evaluation

cc w/ enclosures:
See next page

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Handwritten initials in cursive script, possibly "C.P." or similar, with a flourish.

Mr. W. G. Hairston, III
Georgia Power Company

Edwin I. Hatch Nuclear Plant,
Units Nos. 1 and 2

cc:

G. F. Trowbridge, Esq.
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N. W.
Washington, D.C. 20037

Mr. R. P. McDonald
Executive Vice President -
Nuclear Operations
Georgia Power Company
P.O. Box 1295
Birmingham, Alabama 35201

Mr. L. T. Gucwa
Engineering Department
Georgia Power Company
P. O. Box 1295
Birmingham, Alabama 35201

Nuclear Safety and Compliance Manager
Edwin I. Hatch Nuclear Plant
Georgia Power Company
P. O. Box 442
Baxley, Georgia 31513

Mr. Louis B. Long
Southern Company Services, Inc.
P. O. Box 1295
Birmingham, Alabama 35201

Resident Inspector
U.S. Nuclear Regulatory Commission
Route 1, Box 725
Baxley, Georgia 31513

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 2900
Atlanta, Georgia 30323

Mr. Charles H. Badger
Office of Planning and Budget
Room 610
270 Washington Street, S.W.
Atlanta, Georgia 30334

Mr. J. Leonard Ledbetter, Commissioner
Department of Natural Resources
270 Washington Street, N.W.
Atlanta, Georgia 30334

Chairman
Appling County Commissioners
County Courthouse
Baxley, Georgia 31513

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The amendment changes the definitions of hot shutdown and cold shutdown and modifies relevant sections of the TS to specify which equipment must be, or need not be, operable during performance of hydrostatic and leakage pressure testing.

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Office of Nuclear Reactor Regulation

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2. Safety Evaluation

cc w/ enclosures:
See next page

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

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 NO. 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 160
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 Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, (the licensee) dated September 6, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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 amended by 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 Appendices A and B, as revised through Amendment No. 160, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 24, 1989

- 2. Accordingly, the license is amended by 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 Appendices A and B, as revised through Amendment No. 160, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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David B. Matthews, Director
 Project Directorate II-3
 Division of Reactor Projects-I/II
 Office of Nuclear Reactor Regulation

Attachment:
 Changes to the Technical
 Specifications

Date of Issuance: February 24, 1989

*see note
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ARR:SPLB
 JCraig
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LA:PDII-3
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ATTACHMENT TO LICENSE AMENDMENT NO. 160

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

Remove Page

1.0-1
1.0-2
3.2-4
3.5-2
3.5-3
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3.5-5
3.6-7
3.7-12

Insert Page

1.0-1
1.0-2
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3.5-3
3.5-4
3.5-5
3.6-7
3.7-12

1.0 Definitions

The following terms are defined so that a uniform interpretation of these specifications may be achieved.

- A. (Deleted)

- B. Cold Shutdown Condition - Cold shutdown condition means reactor operation with the Mode Switch in the SHUTDOWN position, coolant temperature $\leq 212^{\circ}\text{F}$, and with no core alterations permitted.*

*During the performance of inservice hydrostatic or leakage testing with all control rods fully inserted and reactor coolant temperature $> 212^{\circ}\text{F}$, and/or reactor vessel pressurized, the reactor may be considered to be in the Cold Shutdown Condition for the purpose of determining Limiting Condition for Operation applicability. Note that the Cold Shutdown Condition may be referred to in different ways throughout the Technical Specifications. For example, "reactor subcritical and reactor coolant temperature $< 212^{\circ}\text{F}$," "irradiated fuel in the reactor vessel and the reactor is depressurized," "reactor water temperature $< 212^{\circ}\text{F}$ and reactor coolant system vented," or "reactor is not pressurized (i.e., $< 212^{\circ}\text{F}$)" should be interpreted as COLD SHUTDOWN. However, compliance with an ACTION requiring COLD SHUTDOWN shall require a reactor coolant temperature $\leq 212^{\circ}\text{F}$. In addition, compliance with the following Specifications is required when performing the hydrostatic or leakage testing under the identified conditions: 3.5.B.1.b, 3.5.C.1.c, 3.6.F.2.d, 3.7.C.1.a(7), 3.9.c, and applicable notes in Table 3.2-1.

- C. Core Alteration - Core alteration shall be the addition, removal, relocation, or movement of fuel, sources, incore instruments, or reactivity controls within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of core alterations shall not preclude completion of the movement of a component to a safe conservative position.
- D. Design Power - Design power refers to the power level at which the reactor is producing 105 percent of reactor vessel rated steam flow. Design power does not necessarily correspond to 105 percent of rated reactor power. The stated design power in megawatts thermal (MWt) is the result of a heat balance for a particular plant design. For Hatch Nuclear Plant Unit 1 the design power is approximately 2537 MWt.
- E. Engineered Safety Features - Engineered safety features are those features provided for mitigating the consequences of postulated accidents, including for example containment, emergency core cooling, and standby gas treatment system.
- F. Hot Shutdown Condition - Hot shutdown condition means reactor operation with the Mode Switch in the SHUTDOWN position, coolant temperature greater than 212°F, and no core alterations are permitted.*
- G. Hot Standby Condition - Hot standby condition means reactor operation with the Mode Switch in the START & HOT STANDBY position, coolant temperature greater than 212°F, reactor pressure less than 1045 psig, critical.
- H. Immediate - Immediate means that the required action shall be initiated as soon as practicable, considering the safe operation of the Unit and the importance of the required action.
- I. Instrument Calibration - An instrument calibration means the adjustment of an instrument output signal so that it corresponds, within acceptable range and accuracy, to a known value(s) of the parameter which the instrument monitors.
- J. Instrument Channel - An instrument channel means an arrangement of a sensor and auxiliary equipment required to generate and transmit to a trip system a single trip signal related to the plant parameter monitored by that instrument channel.

*During the performance of inservice hydrostatic or leakage testing with all control rods fully inserted and reactor coolant temperature > 212°F, and/or reactor vessel pressurized, the reactor may be considered to be in the Cold Shutdown Condition for the purpose of determining Limiting Condition for Operation applicability. However, compliance with an ACTION requiring COLD SHUTDOWN shall require a reactor coolant temperature \leq 212°F.

Notes for Table 3.2-1

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between lines in Table 3.2-1 and items in Table 4.2-1.
- b. Primary containment integrity shall be maintained at all times prior to withdrawing control rods for the purpose of going critical, when the reactor is critical, or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low-power physics tests at atmospheric pressure at power levels not to exceed 5 MWt, or performing an inservice vessel hydrostatic or leakage test.

When primary containment integrity is required, there shall be two operable or tripped trip systems for each function.

When performing inservice hydrostatic or leakage testing on the reactor vessel with the reactor coolant temperature above 212°F, reactor vessel water level instrumentation associated with the low low (Level 2) trip requires two operable or tripped channels. The drywell pressure trip is not required because primary containment integrity is not required.

- c. If the number of operable channels cannot be met for one of the trip systems, that trip system shall be tripped. However, one trip signal channel of a trip system may be inoperable for up to 2 hours during periods of required surveillance testing without tripping the associated trip system, provided that the other remaining channel(s) monitoring that same parameter within that trip system is (are) operable.
- d. The valves associated with each Group isolation are given in Table 3.7-1.
- e. Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full-power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

3.5.A.2. Operation with Inoperable Components

If one CS system loop is inoperable, the reactor may remain in operation for a period not to exceed seven (7) days providing all active components in the other CS system loop, the RHR system LPCI mode and the diesel generators (per Specification 4.9.A.2.a) are operable. When performing an inservice hydrostatic or leakage test with the reactor coolant temperature above or below 212°F the CS system is not required to be operable.

4.5.A.2. Surveillance with Inoperable Components

When it is determined that one core spray loop is inoperable at a time when operability is required, the other core spray loop and the RHR system LPCI mode shall be demonstrated to be operable immediately. The operable core spray loop shall be demonstrated to be operable daily until both loops are returned to normal operation.

3. Shutdown Requirements

If Specification 3.5.A.1.a. or 3.5.A.2. cannot be met the reactor shall be placed in the Cold Shutdown Condition within 24 hours.

B. Residual Heat Removal (RHR) System (LPCI and Containment Cooling Mode)

1. Normal System Availability

a. The RHR System shall be operable:

- (1) Prior to reactor startup from a cold condition, or
- (2) When irradiated fuel is in the reactor vessel and the reactor pressure is greater than atmospheric except as stated in Specification 3.5.B.2.

B. Residual Heat Removal (RHR) System (LPCI and Containment Cooling Mode)

1. Normal Operational Tests

RHR system testing shall be performed as follows:

<u>Item</u>	<u>Frequency</u>
a. Air test on drywell headers and nozzles and air or water test on torus headers and nozzles	Once/5 years

3.5.B.1. Normal System Availability (Cont.)

4.5.B.1. Normal Operational Tests

- b. One RHR loop with two pumps or two loops with one pump per loop shall be operable in the shutdown cooling mode when irradiated fuel is in the reactor vessel and the reactor pressure is atmospheric except prior to a reactor startup as stated in Specification 3.5.B.1.a. During an inservice hydrostatic or leakage test, one RHR loop with two pumps or two loops with one pump per loop shall also be operable in the LPCI mode.
- c. The reactor shall not be started up with the RHR system supplying cooling to the fuel pool.
- d. During reactor power operation, the LPCI system discharge cross-tie valve, E11-F010, shall be in the closed position and the associated valve motor starter circuit breaker shall be locked in the off position. In addition, an annunciator which indicates that the cross-tie valve is not in the fully closed position shall be available in the control room.
- e. Both recirculation pump discharge valves shall be operable prior to reactor startup (or closed if permitted elsewhere in these specifications).

- | <u>Item</u> | <u>Frequency</u> |
|--|----------------------|
| b. Simulated Automatic Actuation Test | Once/Operating Cycle |
| c. System flow rate: Each RHR pump shall deliver at least 7700 gpm against a system head of at least 20 psig. | Once/3 months |
| d. Pump Operability | Once/month |
| e. Motor Operated valve operability | Once/month |
| f. Both recirculation pump discharge valves shall be tested for operability during any outage exceeding 48 hours, if operability tests have not been performed during the preceding month. | |

2. Operation with Inoperable Components

a. One LPCI Pump Inoperable

If one LPCI pump is inoperable, the reactor may remain in operation for a period not to exceed seven (7) days provided that the remaining LPCI pumps, both LPCI subsystem flow paths, the Core Spray system, and the associated diesel generators are operable (per Specification 4.9.A.2.a).

b. One LPCI Subsystem Inoperable

A LPCI subsystem is considered to be inoperable if (1) both of the LPCI pumps within that system are inoperable or (2) the active valves in the subsystem flow path are inoperable.

2. Surveillance with Inoperable Components

a. One LPCI Pump Inoperable

When one LPCI pump is inoperable, the remaining LPCI pumps and associated flow paths and the Core Spray system shall be demonstrated to be operable immediately and daily thereafter, until the inoperable LPCI pump is restored to normal service.

b. One LPCI Subsystem Inoperable

When one LPCI subsystem is inoperable, all active components of the remaining LPCI subsystem and the Core Spray system shall be demonstrated to be operable, immediately

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.5.B.2. Operation with Inoperable Components (Continued)

- b. If one LPCI subsystem is inoperable, the reactor may remain in operation for a period not to exceed seven (7) days provided that all active components of the remaining LPCI subsystem, the Core Spray system, and the associated diesel generators are operable (per Specification 4.9.A.2.a).
- c. When performing an inservice hydrostatic or leakage test with the reactor coolant temperature above or below 212°F, comply with Specification 3.5.B.1.b.

4.5.B.2. Surveillance with Inoperable Components (Continued)

and daily thereafter, until the inoperable LPCI subsystem is restored to normal service.

3.5.B.3. Shutdown Requirements

If Specification 3.5.B.1.a. or 3.5.B.2. cannot be met, the reactor shall be placed in the Cold Shutdown Condition within 24 hours.

C. RHR Service Water System1. Normal System Availability

The RHR service water system shall be operable:

- a. Prior to reactor startup from a Cold Shutdown Condition, or
- b. When irradiated fuel is in the reactor vessel and the reactor vessel pressure is greater than atmospheric pressure except as stated in Specification 3.5.C.2.
- c. When irradiated fuel is in the reactor vessel and the reactor is depressurized at least one RHR service water loop shall be operable.

2. One Pump Inoperable

If one RHR service water pump is inoperable the reactor may remain in operation for a period not to exceed 30 days provided all other active components of both subsystems are operable. When performing an inservice hydrostatic or leakage test, comply with Specification 3.5.C.1.c.

4.5.C. RHR Service Water System1. Normal Operational Tests

RHR service water system testing shall be performed as follows:

<u>Item</u>	<u>Frequency</u>
a. Pump & Valve Operability	Once/3 months
b. Pump Capacity Test: Each RHR service water pump shall deliver at least 4000 gpm at a system head of at least 847 feet.	After pump maintenance and once/3 months

2. One Pump Inoperable

When one RHR service water pump is inoperable the remaining active components of both RHR service water subsystems shall be demonstrated to be operable immediately. An operable RHR service water pump shall be demonstrated to be operable daily thereafter until the inoperable pump is returned to normal service.

3.6.F.2.c. When the time limits or maximum conductivity or chloride concentration limits are exceeded, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown Condition within 24 hours.

4.6.F.2.c.3. Primary coolant pH shall be measured at least once every 8 hours whenever reactor coolant conductivity is $> 2.0 \mu\text{mho/cm}$ at 25°C .

d. Whenever the reactor is not pressurized, a sample of the reactor coolant shall be analyzed at least every 96 hours for chloride ion content and pH.

G. Reactor Coolant Leakage*

1. Unidentified and Total

Any time irradiated fuel is in the reactor vessel and reactor coolant temperature is above 212°F :

- a. reactor coolant system leakage into the primary containment from unidentified sources shall not exceed 5 gpm when averaged over a 24-hour period;
- b. reactor coolant system leakage into the primary containment from unidentified sources shall not increase more than 2 gpm when averaged over a 24-hour period; and
- c. the total reactor coolant system leakage into the primary containment shall not exceed 25 gpm when averaged over a 24-hour period;

when checked in accordance with 4.6.G.

2. Leakage Detection Systems

- a. At least one of the leakage measurement instruments associated with each sump shall be operable and two of the other three leakage detection systems identified in Table 3.2-10, note c shall be operable when irradiated fuel is

G. Reactor Coolant Leakage

Unidentified sources of reactor coolant system leakage shall be checked by the drywell floor drain sump system and recorded at least once per 4 hours. Identified sources of reactor coolant system leakage shall be checked by the equipment drain sump system and recorded at least once per 4 hours. The readings provided by the primary containment atmosphere particulate radioactivity monitoring system, the primary containment radioiodine monitoring system, and the primary containment gaseous radioactivity monitoring system shall also be recorded at least once per 4 hours.

*Not required during performance of an inservice hydrostatic or leakage test even if reactor coolant temperature is above 212°F .

C. Secondary Containment*C. Secondary Containment1. Secondary Containment Integrity1. Surveillance While Integrity Maintained

- a. Integrity of the secondary containment shall be maintained during all modes of Unit 1 plant operation except when all of the following conditions are met:
- (1) The reactor is subcritical and Specification 3.3.A. is met.
 - (2) The reactor water temperature is below 212°F and the reactor coolant system is vented.
 - (3) No activity is being performed which can reduce the shutdown margin below that stated in Specification 3.3.A.
 - (4) The fuel cask or irradiated fuel is not being moved in the reactor building.
 - (5) All hatches between Unit 1 secondary containment and Unit 2 secondary containment are closed and sealed.
 - (6) At least one door in each access path between Unit 1 secondary containment and Unit 2 secondary containment is closed.
 - (7) Inservice hydrostatic or leakage test of reactor vessel is not in progress.
- b. Integrity of the Unit 1 secondary containment shall be maintained during all modes of Unit 2 plant operations except Operational Condition 4 as defined in the Unit 2 Technical Specifications.

Secondary containment surveillance shall be performed as indicated below:

- a. A preoperational secondary containment capability test shall be conducted after isolating the secondary containment and placing the standby gas treatment system filter trains in operation. Such tests shall demonstrate the capability to maintain a minimum 1/4-inch of water vacuum under calm wind (< 5 mph) conditions with each filter train flow rate not more than 4000 cfm.
- b. Secondary containment capability to maintain a minimum 1/4-inch of water vacuum under calm wind (< 5 mph) conditions with each filter train flow rate not more than 4000 cfm shall be demonstrated at each refueling outage, prior to refueling.

*For secondary containment during 1982 refueling outage, see page 3.7-12a.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 160 TO
FACILITY OPERATING LICENSE DPR-57

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-321

1.0 INTRODUCTION

By letter dated September 6, 1988, Georgia Power Company (the licensee) requested an amendment to the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Unit 1 that would: (1) modify the definitions of Hot Shutdown and Cold Shutdown so that changing of operational modes would not be necessary when performing hydrostatic and leakage pressure testing in accordance with the ASME Code, Section XI; and (2) modify TS sections 3.5.A.2, 3.5.B.1.b, 3.5.B.2.c, 3.5.C.2, 3.6.G, and 3.7.C.1.a(7), and the notes to Table 3.2-1 to specify which equipment must be, or need not be, operable during performance of the Section XI hydrostatic and leakage pressure testing. A minor editorial change also would be made to TS 4.5.C.2.

2.0 BACKGROUND

In April of 1987, the NRC informed the licensee that ASME Code, Section XI, inservice hydrostatic and system leak testing at the Hatch plant would have to be performed using non-nuclear heat. Previously, the licensee had conducted these type tests using reactor heat. Amendment No. 137 to the Hatch Unit 1 license, issued on May 26, 1987, made a number of changes to the plant TS to provide for use of non-nuclear heat for the Section XI hydrostatic and system leak tests. The TS changes approved by Amendment No. 137 relaxed requirements regarding the operability of certain systems and the need to maintain primary containment integrity during the tests when reactor coolant temperature is above 212°F.

The TS changes approved by Amendment No. 137 were adequate to allow the hydrostatic and system leakage tests required by ASME Code, Section XI to be conducted using non-nuclear heat. However, they failed to take into account the TS definitions of Cold Shutdown and Hot Shutdown and the required surveillances associated with changing operational modes from Cold to Hot. Conduct of the tests requires increasing the reactor coolant temperature to greater than 212°F which, by definition, is the temperature at which the operational mode changes from Cold Shutdown to Hot Shutdown. Conduct of the

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tests thus requires changing operational modes which, in turn, requires certain equipment to be operable even though it is not needed to maintain plant safety during the tests.

The further changes to the TS now proposed by the licensee would modify the definitions of Cold Shutdown and Hot Shutdown such that a mode change is not required in order to conduct the ASME Code, Section XI hydrostatic and system leak tests, and would further clarify which equipment must be operable during the tests.

3.0 EVALUATION

a. Modify the definitions of Cold Shutdown and Hot Shutdown.

The licensee proposes to modify the definition of Cold Shutdown to read as follows:

Cold Shutdown Condition - Cold shutdown condition means reactor operation with the Mode Switch in the SHUTDOWN position, coolant temperature $\leq 212^{\circ}\text{F}$, and with no core alterations permitted. During the performance of inservice hydrostatic or leakage testing with all control rods fully inserted and reactor coolant temperature $> 212^{\circ}\text{F}$, and/or reactor vessel pressurized, the reactor may be considered to be in the Cold Shutdown Condition for the purpose of determining Limiting Condition for Operation applicability. Note that the Cold Shutdown Condition may be referred to in different ways throughout the Technical Specifications. For example, "reactor subcritical and reactor coolant temperature $< 212^{\circ}\text{F}$," "irradiated fuel in the reactor vessel and the reactor is depressurized," "reactor water temperature $< 212^{\circ}\text{F}$ and reactor coolant system vented," or "reactor is not pressurized (i.e., $\leq 212^{\circ}\text{F}$)" should be interpreted as COLD SHUTDOWN. However, compliance with an ACTION requiring COLD SHUTDOWN shall require a reactor coolant temperature $\leq 212^{\circ}\text{F}$. In addition, compliance with the following Specifications is required when performing the hydrostatic or leakage testing under the identified conditions: 3.5.B.1.b, 3.5.C.1.c, 3.6.F.2.d, 3.7.C.1.a(7), 3.9.c, and applicable notes in Table 3.2-1.

The definition of Hot Shutdown would be modified to read:

Hot Shutdown Condition - Hot shutdown condition means reactor operation with the Mode Switch in the SHUTDOWN position, coolant temperature $> 212^{\circ}\text{F}$, and no core alterations are permitted. During the performance of inservice hydrostatic or leakage testing with all control rods fully inserted and reactor coolant temperature $> 212^{\circ}\text{F}$, and/or reactor vessel pressurized, the reactor may be considered to be in the Cold Shutdown Condition for the purpose of determining Limiting Condition for Operation applicability. However, compliance with an ACTION requiring COLD SHUTDOWN shall require a reactor coolant temperature $\leq 212^{\circ}\text{F}$.

In each case, the proposed revision to the definition consists of adding the material following the first sentence. The NRC staff has no problem with the addition of the clarifying information as pertains to conduct of the ASME Code, Section XI inservice hydrostatic and leakage testing. However, the staff is reluctant to change the definitions themselves. Therefore, rather than changing the definitions, the staff has incorporated the explanatory information requested by the licensee as footnotes to the definitions.

The changes will allow the average coolant temperature to be above 212°F while performing the hydrostatic and system leakage tests without changing operational modes from Cold Shutdown to Hot Shutdown. In addition, operator attention is specifically directed to the TS requirements regarding RHR system and RHR service water system operability, coolant conductivity and chloride limits, the requirement for secondary containment integrity, and diesel generator availability while conducting the tests.

The revised definitions of Cold Shutdown and Hot Shutdown will eliminate the need to observe changes in the Limiting Conditions of Operation (LCOs) normally associated with changing operational modes as part of a reactor startup. At the same time, the revised definitions, in conjunction with the other changes proposed for this amendment and those changes previously approved by Amendment No. 137, provide assurance that necessary plant systems are operable so that the tests can be conducted safely. The changes are, therefore, acceptable.

b. Revise TS 3.5.A.2.

TS 3.5.A.2 would be modified to eliminate the requirement for operability of the core spray system during the hydrostatic and leakage tests. During these tests, control rods are fully inserted, the decay heat level is low following a refueling outage, and the reactor is maintained near cold shutdown conditions. There is, therefore, no need to have a core spray system operable, and this change is acceptable.

c. Revise TS 3.5.B.1.b.

This change requires the operability of at least one RHR loop with two pumps or two RHR loops with one pump per loop during conduct of the hydrostatic and leakage testing. The change would assure the availability of adequate core cooling while conducting the tests, and it is, therefore, acceptable.

d. Add TS 3.5.B.2.c.

This added specification requires compliance with TS 3.5.B.1.b (see above). It is, therefore, acceptable.

e. Revise TS 3.5.C.2

This revision would specifically require the operability of at least one RHR service water loop during conduct of the hydrostatic or leakage tests. It would assure the capability of removing heat from the reactor, and it is, therefore, acceptable.

f. Revise TS 3.6.G.

This change would add a footnote to TS 3.6.G eliminating the need to observe LCOs pertaining to system leakage during the hydrostatic and leakage tests. These tests are conducted in accordance with the ASME Code, Section XI, and are subject to acceptability criteria specified in the code. There is, therefore, no need to observe the LCOs pertaining to system leakage which are applicable during normal plant operation. Accordingly, we find this change acceptable.

g. Add TS 3.7.C.1.a(7).

This change requires that secondary containment integrity be maintained during conduct of hydrostatic and leakage tests. It assures that any radioactivity escaping the reactor coolant system during the tests would be collected and processed by the standby gas treatment system, thereby preventing an uncontrolled release to the environs. The change helps assure the overall safety of the tests, and it is, therefore, acceptable.

h. Revise Table 3.2-1.

A note would be added to Table 3.2-1 requiring that the reactor vessel water level instrumentation be operable during the hydrostatic and leakage tests. A low-low (Level 2) signal from this water level instrumentation initiates operation of the standby gas treatment system which would be necessary in the event of a system leak leading to the low-low water level. This change is, therefore, acceptable.

i. Revise TS 4.5.C.2.

TS 4.5.C pertains to the RHR Service Water System. Within this section, TS 4.5.C.2 now contains words regarding the "RHR subsystems." To avoid any ambiguity and possible misinterpretation, the licensee proposes to insert the words "service water" between "RHR" and "subsystems." This wording change is editorial in nature and merely clarifies what is implicit in the existing wording. The change is, therefore, acceptable.

j. Summary

In summary, the changes proposed by the licensee in this amendment, in conjunction with those changes previously approved by Amendment No. 137, will allow the licensee to safely conduct the required ASME Code, Section XI hydrostatic and system leakage tests following refueling outages using non-nuclear heat without the distraction of observing unnecessary LCOs. The changes proposed are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that the amendment involves 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 amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register on November 2, 1988 (53 FR 44251), and consulted with the state of Georgia. No public comments were received, and the state of Georgia did not have any comments.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Lawrence P. Crocker, PDII-3/DRP-I/II

Dated: February 24, 1989

DATED February 24, 1989

AMENDMENT NO. 160 TO FACILITY OPERATING LICENSE DPR-57, EDWIN I. HATCH, UNIT 1

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