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U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
HPCI AND RCIC SPECIAL TEST PROGRAM

Gentlemen:

Pursuant to 10 CFR 50.90 as required by 10 CFR 50.59 (c) (1), Georgia Power Company hereby proposes an amendment to the Technical Specifications (Appendix A to the Operating License). The proposed change would allow the performance of a series of special tests on the HPCI and RCIC systems for Unit 2.

The proposed change would temporarily delete the requirement for the HPCI and RCIC steam line high flow isolation trips to be in effect during each special test. Attachment 1 provides a description of the test program, what is expected to be accomplished, and acceptance criteria for the test program.

The high steam line flow isolation instruments protect against steam line breaks. However, high steam line flow is not the only indicator of a steam line break. Low supply pressure and high area air temperature would also provide indication of a steam line break. Several instruments are available which will provide protection in the highly unlikely event of an RCIC or HPCI steam line break during the test program. The instruments available for HPCI are a) HPCI equipment room high temperature, b) Suppression pool area high temperature, and c) low steam supply pressure. The instruments available for RCIC are a) Suppression pool area high temperature, and b) low steam supply pressure. In addition, personnel stationed at each local panel for RCIC and HPCI will notify the control room in the event a high Δp condition persists during a test, allowing the operator to isolate the affected system.

The Plant Review Board and Safety Review Board have reviewed the proposed change to the Technical Specification, and have determined that an unreviewed safety question is not involved. The possibility of a new accident or malfunction not previously considered has not been created because no actual system modifications are involved. Similarly, the consequences of previously

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analyzed accidents or malfunctions are unchanged by the test. Margins of safety are maintained by the redundant instrumentation available to isolate HPCI and RCIC should out of normal parameters be noted. These margins of safety are strengthened by the stationing of personnel at local panels to advise the operator of high Δp conditions as noted above.

In order to expedite the performance of this test program, we urgently request your earliest review and approval of the attached proposed change to the Technical Specifications.

Yours very truly,

Chas. F. Whitmer

RDB/mb

Attachment

Sworn to and subscribed before me this 2nd day of July, 1979.

Mrs. Dottie L. Belden

Notary Public

Notary Public, Georgia, State at Large
My Commission Expires Sept. 29, 1981

x : Ruble A. Thomas
George F. Trowbridge, Esquire

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ATTACHMENT 1

SPECIAL HPCI/RCIC TEST PROGRAM

I. EXPECTED ACCOMPLISHMENTS

Through the test program described below, the steady state Δp at steady flow will be determined accurately to enable an accurate setting of the 300% rated flow Δp isolation. Following completion of the series of hot quick starts described below, the accumulated data will be evaluated to determine if a design change will be required for HPCI or RCIC. If a design change is required as a result of the evaluation, it will be implemented prior to completion of the test program in order to observe the system performance during a cold quick start. Acceptance criteria for this portion of the test program are listed below.

II. TEST PROGRAM DESCRIPTION

Validyne DP 15 Δp transducers, or equivalent, will be installed across Δp flow switches. The data will be recorded for later analysis during each test. The Δp isolation switches will be removed from service before each hot quick start and the cold quick start lined up condensate storage tank (CST) to CST.

Hot quick starts will be performed 1 each at 150 psig, 500 psig, and 800 psig reactor pressure, with 3 each at 950 psig, 975 psig and 1000 psig reactor pressure. In addition, a cold quick start will be performed with each system aligned CST to CST. Pump discharge pressure for each test will be 100 psig greater than system pressure.

During these quick starts, steady state and peak Δp values will be recorded to enable a determination to be made of the correct value for the high Δp trip setpoint. The data obtained from these tests will be analyzed to determine the possible need for design changes in the high Δp trip logic, such as the addition of snubbers in the instrument lines or time delay relays. After all instrument adjustments or design modifications deemed necessary have been completed, a cold quick start will be performed for each system with that system injecting into the reactor vessel at a reactor pressure of 975 psig. The HPCI vessel injection will be performed at $\geq$ 50% power and the RCIC vessel injection will be performed at $\geq$ 25% power.

Three additional cold quick starts will be performed CST to CST, with the high Δp isolation trip in service within the succeeding 30 days. In addition, the Δp instruments on RCIC will be monitored closely to observe for possible problems in pipe geometry or line leakage.

III. ACCEPTANCE CRITERIA

The hot quick starts and the initial cold quick start (CST to CST) are confirmatory tests in nature. Data will be collected and evaluated and any necessary actions taken prior to proceeding on with the final series of tests.

For the vessel injection tests and the succeeding cold quick starts (CST to CST) with the trip logic functioning to be acceptable, each system must start when required and not isolate due to high steam line Δp during the start.

ATTACHMENT 2

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

Pursuant to 10 CFR 170.12 (c), Georgia Power Company has evaluated the attached proposed amendment to Operating License NPF-5 and have determined that:

a) The proposed amendment does not require the evaluation of a new Safety Analysis Report or rewrite of the facility license;

b) The proposed amendment does not contain several complex issues, does not involve ACRS review, or does not require an environmental impact statement;

c) The proposed amendment does not involve a complex issue, an environmental issue or more than one safety issue;

d) The proposed amendment does involve a single issue, namely, the temporary removal of the high steam line flow isolation trip for HPCI AND RCIC to allow for a special confirmatory test program; and

e) The propcsed amendment is therefore a Class III amendment.

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ATTACHMENT 3

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

The proposed changes to the Technical Specifications, Appendix A to Operating License NPF-5, would be incorporated as follows:

REMOVE PAGE	INSERT PAGE
3/4 3-13	3/4 3-13
3/4 3-14	3/4 3-14
3/4 3-15	3/4 3-15
	3/4 3-15a

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	VALVE GROUPS OPERATED BY SIGNAL (a)	MINIMUN NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION				
a. HPCI Steam Line Flow - High(j) (2E41-N004 and 2E41-N005)	3	1	1, 2, 3	26
b. HPCI Steam Supply Pressure - Low (2E41-N001 A, B, C, D)	3, 8	2	1, 2, 3	26
c. HPCI Turbine Exhaust Diaphragm Pressure - High (2E41-N012 A,B,C,D)	3	2	1, 2, 3	26
d. HPCI Equipment Room Temperature - High (2E41-N610 A, B)	3	1	1, 2, 3	26
e. Suppression Pool Area Ambient Temperature - High (2E51-N603 C, D)	3	1	1, 2, 3	26
f. Suppression Pool Area Δ Temp. - High (2E51-N601 C, D)	3	1	1, 2, 3	26
g. Suppression Pool Area Temperature Timer Relays (2E41-M60 , B)	3(i)	1	1, 2, 3	26
i. Drywell Pressure-High (2E11-N011 C, D)	8	1	1, 2, 3	26
j. Logic Power Monitor (2E41-K1)	NA(h)	1	1, 2, 3	27

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TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	VALVE GROUPS OPERATED BY SIGNAL (a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
5. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION				
a. RCIC Steam Line Flow-High(j) (2E51-N017, 2E51-N018)	4	1	1, 2, 3	26
b. RCIC Steam Supply Pressure - Low (2E51-N019 A, B, C, D)	4, 9	2	1, 2, 3	26
c. RCIC Turbine Exhaust Diaphragm Pressure - High (2E51-N012 A, B, C, D)	4	2	1, 2, 3	26
d. Emergency Area Cooler Temperature - High (2E51-N602 A, B)	4	1	1, 2, 3	26
e. Suppression Pool Area Ambient Temperature-High (2E51-N603 A, B)	4	1	1, 2, 3	26
f. Suppression Pool Area Δ T-High (2E51-N604 A, B)	4	1	1, 2, 3	26
g. Suppression Pool Area Temperature Timer Relays (2E51-M602 A, B)	4(i)	1	1, 2, 3	26
h. Drywell Pressure - High (2E11-N011 A, B)	9	1	1, 2, 3	26
i. Logic Power Monitor (2E51-K1)	NA(h)	1	1, 2, 3	27
6. SHUTDOWN COOLING SYSTEM ISOLATION				
a. Reactor Vessel Water Level-Low (2B21-N017 A, B, C, D)	2, 5, 6, 10, 11 12	2	3, 4, 5	26
b. Reactor Steam Dome Pressure-High (2B31-N018 A, B)	11	1	1, 2, 3	28

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION 21 - Be in at least STARTUP with the main steam line isolation valves closed within 8 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

ACTION 22 - Be in at least STARTUP within 8 hours.

ACTION 23 - Be in at least STARTUP with the Group 1 isolation valves closed within 8 hours or in at least HOT SHUTDOWN within 12 hours.

ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.

ACTION 25 - Isolate the reactor water cleanup system.

ACTION 26 - Close the affected system isolation valves and declare the affected system inoperable.

ACTION 27 - Verify power availability to the bus at least once per 12 hours or close the affected system isolation valves and declare the affected system inoperable.

ACTION 28 - Close the shutdown cooling supply and reactor vessel head spray isolation valves unless reactor steam dome pressure $\leq$ 135 psig.

NOTES

\# Actuates operation of the main control room environmental control system in the pressurization mode of operation.

* Actuates the standby gas treatment system.

** When handling irradiated fuel in the secondary containment.

a. See Specification 3.6.3.1, Table 3.6.3.1-1 for valves in each valve group.

b. A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

c. With a design providing only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for the Trip Function shall be taken.

d. Trips the mechanical vacuum pumps.

e. A channel is OPERABLE if 2 of 4 instruments in that channel are OPERABLE.

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TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

f. May be bypassed with reactor steam pressure $\leq$ 1045 psig and all turbine stop valves closed.

g. Closes only RWCU outlet isolation valve 2G31-F004.

h. Alarm only.

i. Adjustable up to 60 minutes.

j. Not required for special test program