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

FEBRUARY 1 1979

Docket No. 50-366

Mr. Charles F. Whitmer
Vice President - Engineering
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Whitmer:

Review of the General Electric Standard Technical Specifications (GE STS) has disclosed that the action statements applicable to the Reactor Protection System Instrumentation, Specification 3.3.1, the Isolation Actuation Instrumentation, Specification 3.3.2, and the Bases for Applicability Specification 3.0.3 require revision to prevent improper actions by the licensee in the event of operation with inoperable intrumentation channels.

Edwin I. Hatch Nuclear Plant, Unit No. 2, Reactor Protection System Instrumentation Specification 3.3.1, action "a", and Isolation Actuation Instrumentation Specification 3.3.2, action "b", specify:

> "With the requirements for the minimum number of OPERABLE channels not satisified for one trip system, place the inoperable channel in the tripped condition within one hour or take the ACTION required by Table 3.3.1-1 (or 3.3.2-1)".

It is not the intent of the Commission to permit the application of the optional action "or take the ACTION required by Table 3.3.1-1 (or 3.3.2-1)" when the minimum number of operable channels is not satisfied for only one of two trip systems in the 1 of 2 taken twice logic. When the associated specific "... ACTION required by Table 3.3.1-1 (or 3.3.2-1)" is "be in at least HOT SHUTDOWN within 12 hours" or "be in at least STARTUP within 8 hours", the licensee would be permitted to continue operation for up to 12 (8) hours with one or both channels in one of the two trip systems inoperable in a non-safe (untripped) condition. With one channel in one trip system inoperable in a non-safe condition, system safety performance would be dependent on a 1-out-of-1 logic. With both channels in one trip system inoperable in a non-safe condition, the Reactor Protection System Instrumentation and the Isolation Actuation Instrumentation would be unable to perform their safety functions. This optional action is not necessary to unit operation and is not typically provided in existing BWR custom Technical Specifications. The current GE-STS have been revised to delete this optional action.

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You are requested to propose a change to the Technical Specifications for Edwin I. Hatch Nuclear Plant, Unit No. 2, to delete the optional action "or take the ACTION required by Table 3.3.1-1 (and 3.3.2-1)" in Specification 3.3.1, action "a" and Specification 3.3.2, action "b" within 30 days from receipt of this letter.

Edwin I. Hatch Nuclear Plant, Unit No. 2, Reactor Protection System Instrumentation Specification 3.3.1, action "b", and Isolation Actuation Instrumentation Specification 3.3.2, action "c", specify:

> "With the requirements for the minimum number of OPERABLE channels not satisfied for both trip systems, take the ACTION required by Table 3.3.1-1 (or 3.3.2-1)."

When the associated specific "... ACTION required by Table 3.3.1-1 (or 3.3.2-1)" is "be in at least HOT SHUTDOWN (or STARTUP) within 12 (8) hours", the licensee would be permitted to continue operation for up to 12 (8) hours in a degraded condition in which up to all four channels in both trip systems could be inoperable in a non-safe condition. Again, both instrumentation systems would be unable to perform their safety functions or would be dependent on 1-out-of-1 logic. This action is not necessary to unit operation and is not provided in existing BWR custom Technical Specifications. The following changes have been made to the current GE-STS and you are requested to propose the following changes to the Technical Specifications for the Edwin I. Hatch Nuclear Plant, Unit No. 2, within 30 days from receipt of this letter.

1. Change Specification 3.3.1, action "b", and Specification 3.3.2, action "c", to read:

   > "When the requirements for the minimum number of OPERABLE channels not satisfied for both trip systems, place at least one inoperable channel in at least one trip system* in the tripped condition within one hour and take the ACTION required by Table 3.3.1-1 (or 3.3.2-1)".

"*If both channels are inoperable in one trip system, select at least one inoperable channel in that trip system to place in the tripped condition, except when that would cause the Trip Function to occur."

2. Change Specification 3.3.1, Table 3.3.1-1:

   a. ACTION 1, 4, 5, 8, and 9 to require the units to be in at least HOT SHUTDOWN within 6 hours, instead of 12 hours.

   b. ACTION 3 to require the units to be in at least STARTUP within 2 hours, instead of 8 hours.

   c. ACTION 6 to require the units to be in STARTUP with the main steam line isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 6 hours.

3. Change Specification 3.3.2, Table 3.3.2-1:

   a. ACTION 20 to require the units to take the ACTION required by Specification 3.0.3.

   b. ACTION 21 to require the units to be in at least STARTUP with the main steam line isolation valves closed within 2 hours or take the ACTION required by Specification 3.0.3.

   c. ACTION 22 to require the units to be in at least STARTUP within 2 hours, instead of 8 hours.

   d. ACTION 23 to require the unit to be in at least STARTUP with the Group 1 isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 6 hours.

The following addition has been made to the bases for Specification 3.0.3 in the GE-STS to provide guidance in the execution of required actions. You are requested to propose the same following addition to the bases of the Technical Specifications for the Edwin I. Hatch Nuclear Plant, Unit No. 2, within 30 days from receipt of this letter.

"The unit shall be brought to HOT SHUTDOWN and COLD SHUTDOWN within the required times by promptly initiating and carrying out an orderly shutdown. It is intended that this guidance also apply whenever an ACTION statement requires the units to be in (at least) STARTUP within 2 hours or to be in (at least) HOT SHUTDOWN within 6 hours".

To assist you with your submittal we have attached appropriate pages of the Hatch Unit No. 2 Technical Specifications which affect the above described changes.

We have determined that for fee purposes that this action normally would be a Class III amendment as defined in 10 CFR 170.22 but that this action is exempt from fees pursuant to footnote 2 of Section 170.22.

If you have any questions regarding these changes, please contact us.

Sincerely,

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosure:
Sample Technical
Specifications

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3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2. Set points and interlocks are given in Table 2.2.1-1.

APPLICABILITY: As shown in Table 3.3.1-1.

ACTION:

a. With the requirements for the minimum number of OPERABLE channels not satisfied for one trip system, place at least one inoperable channel in the tripped condition within one hour. ~~or take the ACTION required by Table 3.3.1-1.~~

b. With the requirements for the minimum number of OPERABLE channels not satisfied for both trip systems, take the ACTION required by Table 3.3.1-1. place at least one inoperable channel in at least one trip system* in the tripped condition within one hour and

c. The provisions of Specification 3.0.3 are not applicable in OPERATIONAL CONDITION 5.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each reactor protection system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTION TEST and CHANNEL CALIBRATION operations during the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.1-1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months and shall include calibration of time delay relays and timers necessary for proper functioning of the trip system.

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip function of Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function.

* If both channels are inoperable in one trip system, select at least one inoperable channel in that trip system to place in the tripped condition, except when this would cause the Trip function to occur.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION

ACTION 1 - In OPERATIONAL CONDITION 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or postive reactivity changes and fully insert all insertable control rods within one hour.

ACTION 2 - Lock the reactor mode switch in the Shutdown position within one hour.

ACTION 3 - Be in at least STARTUP within 2 hours.

ACTION 4 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

ACTION 5 - Be in at least HOT SHUTDOWN within 12 hours.

ACTION 6 - Be in STARTUP with the main steam line isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 12 hours.

ACTION 7 - Initiate a reduction in THERMAL POWER within 15 minutes and be at less than 30% of RATED THERMAL POWER within 2 hours.

ACTION 8 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 12 hours.

In OPERATIONAL CONDITION 3 or 4, immediately and at least once per 12 hours verify that all control rods are fully inserted.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION 9 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 3 or 4, lock the reactor mode switch in the Shutdown position within one hour.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

TABLE NOTATIONS

a. 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 OPERABLE channel in the same trip system is monitoring that parameter.

b. The "shorting links" shall be removed from the RPS circuitry during CORE ALTERATIONS and shutdown margin demonstrations performed in accordance with Specification 3.10.3.

c. The IRM scrams are automatically bypassed when the reactor vessel mode switch is in the Run position and all ARPM channels are OPERABLE and on scale.

d. An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than eleven LPRM inputs to an APRM channel.

e. These functions are not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed.

f. This function is automatically bypassed when the reactor mode switch is in other than the Run position.

g. This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

h. With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.11.1 or 3.9.11.2.

i. These functions are bypassed when turbine first stage pressure is <250* psig, equivalent to THERMAL POWER less than 30% of RATED THERMAL POWER.

j. Also trips reactor coolant system recirculation pump MG sets.

k. Also trips reactor coolant system recirculation pump motors.

* Initial setpoint. Final setpoint to be determined during startup testing.

3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The isolation actuation instrumentation channels shown in Table 3.3.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2 and with ISOLATION SYSTEM RESPONSE TIME as shown in Table 3.3.2-3.

APPLICABILITY: As shown in Table 3.3.2-1.

ACTION:

a. With an isolation actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.2-2, declare the channel inoperable and place the inoperable channel in the tripped condition* until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.

b. With the requirements for the minimum number of OPERABLE channels not satisfied for one trip system, place ~~the~~ inoperable channel in the tripped condition* within one hour, ~~or take the ACTION required by Table 3.3.2-1~~.

c. With the requirements for the minimum number of OPERABLE channels not satisfied for both trip systems, take the ACTION required by Table 3.3.2-1.

d. The provisions of Specification 3.0.3 are not applicable in OPERATIONAL CONDITION 5.

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each isolation actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST AND CHANNEL CALIBRATION operations during the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.2-1.

4.3.2.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months and shall include calibration of time delay relays and timers necessary for proper functioning of the trip system.

* 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 that Trip Function shall be taken.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

ACTION 20 - Take the ACTION required by Specification 3.0.3. ~~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 2 hours or ~~be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.~~ Take the ACTION required by Specification 3.0.3.

ACTION 22 - Be in at least STARTUP within 2 hours.

ACTION 23 - Be in at least STARTUP with the Group 1 isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 10 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 that 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.

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.

BASES

The specifications of this section provide the general requirements applicable to each of the Limiting Conditions for Operation and Surveillance Requirements within Section 3/4.

3.0.1 This specification states the applicability of each specification in terms of defined OPERATIONAL CONDITION and is provided to delineate specifically when each specification is applicable.

3.0.2 This specification defines those conditions necessary to constitute compliance with the terms of an individual Limiting Condition for Operation and associated ACTION requirement.

3.0.3 This specification delineates the ACTION to be taken for circumstances not directly provided for in the ACTION statements and whose occurrence would violate the intent of the specification. For example, Specification 3.5.1 calls for the HPCI to be OPERABLE and specifies explicit requirements if it become inoperable. Under the terms of Specification 3.0.3 if the required additional systems are not OPERABLE, the facility is to be placed in HOT SHUTDOWN within the next 6 hours and be in COLD SHUTDOWN within the following 30 hours.* The unit shall be brought to HOT SHUTDOWN and COLD SHUTDOWN within the required times by promptly initiating and carrying out an orderly shutdown. It is intended that this guidance also apply whenever an ACTION statement requires the units to be in (at least) STARTUP within 2 hours or to be in (at least) HOT SHUTDOWN within 6 hours*.

3.0.4 This specification provides that entry into an OPERABLE CONDITION must be made with (a) the full complement of required systems, equipment or components OPERABLE and (b) all other parameters as specified in the Limiting Conditions for Operation being met without regard for allowable deviations and out of service provisions contained in the ACTION statements.

The intent of this provision is to insure that facility operation is not initiated with either required equipment or systems inoperable or other limits being exceeded.

Exceptions to this provision have been provided for a limited number of specifications when startup with inoperable equipment would not affect plant safety. These exceptions are stated in the ACTION statements of the appropriate specifications.