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Mr. J. T. Beckham, Jr.
Vice President - Engineering
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302



Dear Mr. Beckham:

By letter dated July 7, 1980, we requested that you propose Technical Specification changes for Hatch Nuclear Plant, Units 1 and 2 to provide surveillance requirements for scram discharge volume (SDV) vent and drain valves and LCO/surveillance requirements for RPS and control rod block SDV limit switches.

Our consultant, Franklin Research Center (FRC), has reviewed your submittal in response to this letter and has identified the need for additional information. We have evaluated the FRC document and agree that this information is needed in order to complete our review.

Accordingly, please provide the additional information requested in the enclosure within forty-five (45) days of your receipt of this letter.

If you or your staff have any questions on this matter, please contact your project manager.

Sincerely,

"ORIGINAL SIGNED BY
JOHN F. STOLZ"

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosure:
Request for Additional
Information

cc w/enclosure:
See next page

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OFFICE	ORB#4:DL	ORB#2:DL <i>KTE</i>	C-ORB#4:DL			
SURNAME	MFairtile/cab	KEccleston	JStolz			
DATE	8/26/81 <i>MBJ</i>	8/31/81	9/1/81			

Hatch 1/2
Georgia Power Company

50-321/366

cc w/enclosure(s):

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REQUEST FOR ADDITIONAL INFORMATION

**BWR SCRAM DISCHARGE VOLUME
LONG-TERM MODIFICATIONS**

GEORGIA POWER COMPANY

HATCH NUCLEAR POWER STATION UNITS 1 AND 2

NRC DOCKET NO. 50-321, 50-366

NRC TAC NO. 42219, 42218



Franklin Research Center

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BACKGROUND

This Request for Additional Information (RFI) is the result of an evaluation of information contained in a letter dated February 26, 1981 from Georgia Power Company to the Nuclear Regulatory Commission (NRC) in response to NRC's request for Technical Specifications changes regarding Hatch Nuclear Power Station Units 1 and 2 surveillance requirements for scram discharge volume (SDV) vent and drain valves, and limiting conditions for operation (LCO)/surveillance requirements for reactor protection system (RPS) and control rod block SDV limit switches. The evaluation was made in accordance with criteria contained in the Model Technical Specifications proposed by NRC staff and incorporated into the General Electric Standard Technical Specifications.

The evaluation revealed six items of concern to which unsatisfactory responses were obtained. One item of concern refers to surveillance requirements for SDV drain and vent valves; two items of concern refer to LCO/surveillance requirements for reactor protection system SDV limit switches; and three items of concern refer to LCO/surveillance requirements for control rod block SDV limit switches.

Additional information related to these items of concern is needed before a final evaluation of the proposed Technical Specification changes for Hatch Nuclear Power Station Units 1 and 2 can be made.

REQUESTED CHANGES IN TECHNICAL SPECIFICATIONS

The changes in Technical Specifications involve surveillance requirements of the main components and instrumentation of the scram discharge volume. They cover three areas of concern, as described below.

I. Surveillance Requirements for SDV Drain and Vent Valves

The surveillance requirements of the Model Technical Specifications for SDV drain and vent valves are:

"4.1.3.1.1 - The scram discharge volume drain and vent valves shall be demonstrated OPERABLE at least once per 31 days by:

- a. Verifying each valve to be open*, and
- b. Cycling each valve at least one complete cycle of full travel.

**These valves may be closed intermittently for testing under administrative controls."

ITEM 1

CONCERN

The Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a paragraph specifying the surveillance requirements for SDV drain and vent valves similar to paragraph 4.1.3.1.1 of the Model Technical Specifications. The drain and vent valves can be closed and opened (cycled) under administrative controls during normal reactor operation without causing reactor scram.

REQUEST

1. Provide a reference to that section of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 where the requested changes for surveillance requirements of the drain and vent valves are incorporated, or

2. Provide realistic technical bases why the requested changes are not applicable to Hatch Nuclear Power Station Units 1 and 2.

II. LCO/Surveillance Requirements for Reactor Protection System Scram Discharge Volume Limit Switches

The required changes in the Technical Specifications with reference to LCO/surveillance requirements for reactor protection system scram discharge volume limit switches are given in the NRC staff's Model Technical Specifications as reproduced below.

"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.

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

The required information from the tables referred to in the above paragraphs follows.

Table 3.3.1-1. Reactor Protection System Instrumentation

<u>Functional Unit</u>	<u>Applicable Operational Conditions</u>	<u>Minimum Operable Channels Per Trip System (a)</u>	<u>Action</u>
8. Scram Discharge Volume Water Level-High	1,2,5(h)	2	4

NOTATION: (a) A channel may be placed in an inoperable status 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.

(h) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

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* and fully insert all insertable control rods within one hour.

*Except movement of IRM, SRM or special movable detectors, or replacement of LPRM strings provided SRM instrumentation is OPERABLE per Specification 3.9.2.

Table 3.3.1-2. Reactor Protection System Response Times

<u>Functional Unit</u>	<u>Response Time (Seconds)</u>
8. Scram Discharge Volume Water Level-High	NA

Table 4.3.1.1-1. Reactor Protection System Instrumentation Surveillance Requirements

<u>Functional Unit</u>	<u>Channel Check</u>	<u>Channel Functional Test</u>	<u>Channel Calibration</u>	<u>Operational Conditions in Which Surveillance Required</u>
8. Scram Discharge Volume Water Level-High	NA	M	R	1,2,5

ITEM 2

CONCERN

Referring to paragraph 3.3.1 and Table 3.3.1-1 of the Model Technical Specifications given above, the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a similar paragraph and table or an equivalent paragraph stating that, as a minimum, the reactor protection system scram discharge volume water level-high instrumentation shall consist of two OPERABLE channels containing two limit switches per trip system, for a total of four OPERABLE channels containing four limit switches per two trip systems, making 1-out-of-2 taken twice logic.

REQUEST

1. Provide a reference to that section of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 which indicates that the reactor protection system SDV water level-high consists of 2 OPERABLE channels containing two limit switches per trip system, for a total of 4 OPERABLE channels containing 4 limit switches per two trip systems, making 1-out-of-2 taken twice logic, or
2. If the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 do not contain the above requirements, make the required changes and provide a copy of the proposed changes.

ITEM 3

CONCERN

Referring to paragraph 4.3.1.1 and Table 4.3.1.1-1 of the Model Technical Specifications, the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a similar paragraph and table or an equivalent paragraph stating that each reactor protection system scram discharge volume water level-high instrumentation channel containing a limit switch shall be demonstrated OPERABLE by the performance of the CHANNEL FUNCTIONAL TEST once per month and CHANNEL CALIBRATION operations each refuelling outage for the OPERATIONAL CONDITIONS 1, 2, and 5.

REQUEST

1. Provide a reference to the pages of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 where the requested changes for LCO/surveillance requirements of reactor protection system SDV limit switches are incorporated, or
2. If the proposed frequency of the required surveillance for Hatch Nuclear Power Station Units 1 and 2 differs from the frequency requested by the Model Technical Specifications, provide technical bases for it.

.III. LCO/Surveillance Requirements for Control Rod Block Scram Discharge Volume Limit Switches

The provisions of the Model Technical Specifications in regard to LCO/surveillance requirements for control rod block scram discharge volume limit switches are:

*3.3.6. The control rod withdrawal block instrumentation channels shown in Table 3.3.6-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6-2.

*4.3.6. Each of the above required control rod withdrawal block trip systems and instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.6-1."

The information contained in the tables referred to in the above paragraphs follows.

Table 3.3.6-1. Control Rod Withdrawal Block Instrumentation

<u>Trip Function</u>	<u>Minimum Operable Channels Per Trip Function</u>	<u>Applicable Operational Conditions</u>	<u>Action</u>
5. <u>Scram Discharge Volume</u>			
a. Water Level-High	2	1,2,5**	62
b. Scram Trip Bypassed	1	1,2,5**	62

**With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

Action 62: With the number of OPERABLE channels less than required by the minimum OPERABLE channels per trip function requirement, place the inoperable channel in the tripped condition within one hour.

Table 3.3.6-2. Control Rod Withdrawal Block Instrumentation Setpoints

<u>Trip Function</u>	<u>Trip Setpoint</u>	<u>Allowable Value</u>
5. <u>Scram Discharge Volume</u>		
a. Water Level-High	<18 gallons	<18 gallons
b. Scram Trip Bypassed	NA	NA

Table 4.3.6-1. Control Rod Withdrawal Block Instrumentation Surveillance Requirements

<u>Trip Function</u>	<u>Channel Check</u>	<u>Channel Functional Test</u>	<u>Channel Calibration</u>	<u>Operational Conditions In Which Surveillance Required</u>
5. <u>Scram Discharge Volume</u>				
a. Water Level-High	NA	Q	R	1,2,5**
b. Scram Trip Bypassed	NA	M	NA	1,2,5**

**As in Table 3.3.6-1.

ITEM 4

CONCERN

Referring to paragraph 3.3.6 and Table 3.3.6-1 of the Model Technical Specifications, the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a similar paragraph and table or an equivalent paragraph concerning the control rod withdrawal block scram discharge volume water level-high instrumentation and scram trip bypassed instrumentation.

REQUEST:

1. Provide a reference to the pages of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 where the number of "MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION" is specified in regard to CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SDV for
 - a. water level-high
 - b. scram trip bypassed, or
2. Provide technical bases for deviations from the staff position.

ITEM 5

CONCERN

Referring to paragraph 3.3.6 and Table 3.3.6-2 of the Model Technical Specifications, the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a similar paragraph and table or an equivalent paragraph stating the control rod withdrawal block scram discharge volume water level-high.

REQUEST

1. Provide a reference to the pages of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 where the setpoint in regard to the control rod withdrawal block SDV water level-high is specified, or
2. Propose such a change.

ITEM 6

CONCERN

Referring to paragraph 4.3.6 and Table 4.3.6-1 of the Model Technical Specifications, the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 should contain a similar paragraph and table or an equivalent paragraph stating:

Each control rod withdrawal block scram discharge volume water level-high instrumentation channel containing a limit switch shall be demonstrated OPERABLE by the performance of the CHANNEL FUNCTIONAL TEST once per 3 months and CHANNEL CALIBRATION operations each refuelling outage; a scram trip bypassed instrumentation channel containing a limit switch shall be demonstrated OPERABLE by the performance of the CHANNEL FUNCTIONAL TEST once per month. For the surveillance specified above, the OPERATIONAL CONDITIONS shall be 1,2,5**.

** As in Table 3.3.6-1.

REQUEST

1. Provide a reference to the pages of the Technical Specifications for Hatch Nuclear Power Station Units 1 and 2 where the requested changes for LCO/surveillance requirements for control rod SDV limit switches are incorporated, or

2. If the proposed frequency of the required surveillance for Hatch Nuclear Power Station Units 1 and 2 differs from the frequency of surveillance requested by the Model Technical Specifications, provide technical bases for it.