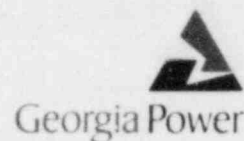


Georgia Power Company
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J. T. Beckham, Jr.
Vice President and General Manager
Nuclear Operations



the southern electric system

SL-328
0302C

March 7, 1986

Director of Nuclear Reactor Regulation
Attention: Mr. D. Muller, Project Director
BWR Project Directorate No. 2
Division of Boiling Water Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS
CHANGES TO SUPPORT HYDROGEN INJECTION TEST

Gentlemen:

In accordance with the provisions of 10 CFR 50.90 as required by 10 CFR 50.59(c)(1), Georgia Power Company (GPC) hereby proposes changes to the Technical Specifications, Appendix A to Operating License DPR-57.

The proposed changes would make the necessary adjustments to setpoints for the Main Steam Line Radiation Monitor (MSLRM) instruments as described in Tables 3.1-1, 3.2-1 and 3.2-8, to allow performance of tests of hydrogen injection into the primary coolant. These tests will be performed in order to evaluate Hydrogen Water Chemistry (HWC) as a potential mitigator of intergranular stress corrosion cracking (IGSCC). In order to support test schedules, NRC approval of this submittal is requested prior to May 1, 1986.

Attachment 1 provides a detailed description of the proposed changes and circumstances necessitating, the change request.

Attachment 2 details the basis for our determination that the proposed changes do not involve significant hazards considerations.

Attachment 3 provides page change instructions for incorporating the proposed changes.

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Director of Nuclear Reactor Regulation
Attention: Mr. D. Muller, Project Director
BWR Project Directorate No. 2
March 7, 1986
Page Two

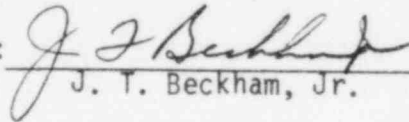
The proposed changed Technical Specifications pages follow Attachment 3.

Payment of filing fee is enclosed.


Pursuant to the requirements of 10 CFR 50.91, Mr. J. L. Ledbetter of the Environmental Protection Division of the Georgia Department of Natural Resources will be sent a copy of this letter and all applicable attachments.

J. T. Beckham, Jr. states that he is Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company, and that to the best of his knowledge and belief the facts set forth in this letter are true.

GEORGIA POWER COMPANY

By: 
J. T. Beckham, Jr.

Sworn to and subscribed before me this 7th day of March, 1986.


Notary Public
Notary Public, Clayton County, Georgia
My Commission Expires Dec. 12, 1989

REB/lc

Enclosure

c: Mr. H. C. Nix, Jr.
Dr. J. N. Grace, (NRC-Region II)
Mr. J. L. Ledbetter
Senior Resident Inspector
GO-NORMS

ATTACHMENT 1

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS
BASIS FOR CHANGE REQUEST

Hydrogen injection into primary system coolant has been proposed for BWRs as a mitigator of intergranular stress corrosion cracking (IGSCC) of stainless steel piping. Georgia Power Company intends to perform a series of test injections at Plant Hatch Unit 1 shortly after resumption of power operation following the current outage. Return to power is currently scheduled for approximately April 1, 1986.

The main purpose of the hydrogen injection tests is to identify plant modifications necessary to support potential permanent implementation of HWC. The modifications are expected to be associated primarily with plant shielding upgrades to minimize occupational exposure, if required. From a plant systems standpoint, this test is expected to demonstrate that there are no reasons to prohibit permanent injection of hydrogen. As required by 10 CFR 50.59, a separate safety analysis will be prepared for any permanent installation and Technical Specifications changes supporting HWC installation would be sought at that time.

The test, which is performed with the assistance of General Electric, involves injecting hydrogen into the feedwater system at predetermined increments when the plant is above 90 percent power. No increment is large enough to result in an unexpected change in any plant parameter. Lessons learned by General Electric from previous pre-implementation tests at other plants will be incorporated into the procedures for the test.

Extensive ALARA measures will be implemented for the duration of the test. The conduct of the test and radiological surveys during the test will ensure minimal increases in occupational exposure.

As has been the case for other Dockets (Reference 50-293 for Pilgrim Nuclear Plant, Letter to NRC of February 1, 1985, License Amendment Number 86), performance of the hydrogen injection tests will require temporary adjustments to setpoints (and associated Technical Specifications) for instruments which provide reactor scram and containment isolation on Main Steam Line high radiation (Technical Specifications Tables 3.1-1, 3.2-1, and 3.2-8). The notes proposed for addition to the Technical Specifications will allow this adjustment only when above 20 percent rated power. The adjustments will allow for higher "background" MSL radiation setpoints

ATTACHMENT 1 (Continued)

during test periods of hydrogen injection to account for increased levels of short half life N-16 carryover into main steam. Hydrogen addition will result in an approximate 3 to 8-fold increase in the N-16 activity in the steam. The resultant increase in the background radiation level necessitates the change to the Main Steam Line Radiation Monitor scram and isolation setpoints.

The current setpoints are less than or equal to 3 times normal rated power background. The only design basis accident which takes credit for main steam isolation valve (MSIV) closure on Main Steam Line high radiation is the design basis control rod drop accident (CRDA) (Hatch Unit 1 FSAR Section 14.4.2). The CRDA is only of concern below 10 percent of rated power. Since the current MSLRM setpoint will not be changed when at or below 20 percent rated power, the MSLRM sensitivity to fuel failure is not impacted and the FSAR analysis for the CRDA remains valid.

A temporary increase in the Main Steam Line high radiation scram and isolation setpoints will not impact any other HNP-1 FSAR Chapter 14 accident or transient analyses since no credit is taken for this signal. Consequently, the Technical Specifications exception to allow for an increase in the setpoints during hydrogen injection will not reduce overall plant safety margins. The Technical Specifications exception, which is added as a note to the affected tables, is as follows:

"Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20 percent 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 percent rated power."

If, due to a recirculation pump trip or other unanticipated power reduction event, the reactor drops below 20 percent rated power without setpoint readjustment, control rod withdrawal will be prohibited by procedures until the necessary setpoint readjustment is made. This ensures that fuel failures of the type concerning the MSLRM (specifically FSAR CRDA analysis) are unlikely.

The MSLRM also performs a general function of monitoring for failed fuel. This capability to monitor fuel failures is retained with the adjusted radiation "background" setpoint. Additionally, this capability is provided through the offgas radiation monitor, performance of primary coolant analyses, and routine radiation surveys.

ATTACHMENT 2

NRC DOCKETS 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS
10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power Company has evaluated the attached proposed amendment for Plant Hatch Unit 1 and has determined that its adoption would not involve a significant hazard. The basis for this determination is as follows:

Proposed Change:

Provide for temporary adjustments to setpoints for the Main Steam Line Radiation Monitor (MSLRM) to accommodate tests of hydrogen injection.

Basis

This change is consistent with Item (vi) of the "Examples of Amendments That are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the Federal Register, April 6, 1983. Example (vi) of actions involving no significant hazards consideration is a change which may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria. The temporary change proposed by this application fits this example because it would permit the normal full power background level, associated with the Main Steam High Radiation scram and isolation setpoints, to be increased only so as to compensate for the anticipated increase in the main steam radiation levels during hydrogen injection. This background radiation level increase when hydrogen injection is underway is caused by higher levels of short half-life N-16 carryover into the main steam.

Georgia Power Company has reviewed the proposed temporary changes and has determined they do not involve a significant hazards consideration for the following reasons:

1. The proposed changes do not significantly increase the probability or consequences of an accident previously evaluated because operability of the MSLRM is required for compliance with the accident analysis only when below 10 percent rated power. This change is effective only when above 20 percent power.

ATTACHMENT 2 (Continued)

2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because this change allows for setpoint changes only during periods of hydrogen injection testing.
3. The proposed changes do not involve a significant reduction in a margin of safety because the function of the MSLRM will be preserved.

ATTACHMENT 3

NRC DOCKETS 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS

The proposed changes to the Technical Specifications (Appendix A to Operating License DPR-57) would be incorporated as follows:

<u>REMOVE PAGE</u>	<u>INSERT PAGE</u>
3.1-5	3.1-5
3.1-6	3.1-6
-	3.1-6a
3.2-2	3.2-2
3.2-4	3.2-4
3.2-19	3.2-19