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J. T. Beckham, Jr.
Vice President - Nuclear
Hatch Project



November 10, 1995

Docket Nos. 50-321
50-366

HL-5051

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications:
10 CFR 50, Appendix J, Option B

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 Plant Hatch Unit 1 and Unit 2 Technical Specifications (TS), Appendix A to Operating Licenses DPR-57 and NPF-5. The proposed changes reflect implementation of 10 CFR 50, Appendix J, Option B. This submittal includes the request to revise the TS and the implementation plan as required by Option B.

Enclosure 1 provides a description of the proposed changes, an explanation of the bases for the changes, and a comparison of the proposed changes with the NRC letter dated November 2, 1995 (Reference 1) describing an acceptable method of incorporating the optional performance-based requirements of Appendix J, Option B, into the TS. Enclosure 2 details the bases for GPC's determination that the proposed changes do not involve a significant hazards consideration. GPC has determined the proposed license amendment will not significantly affect the quality of the environment. Enclosure 3 includes GPC's 10 CFR 50, Appendix J, Option B, implementation plan. Enclosure 4 provides page change instructions for incorporating the proposed changes. The revised TS pages and the corresponding marked-up pages follow Enclosure 4. Enclosure 5 provides, for your information, a marked-up copy of the associated Bases pages and the revised Bases pages which will be made effective concurrently with the TS changes.

To facilitate implementation during the Unit 1 Spring refueling outage, GPC requests that the proposed amendments be approved prior to January 31, 1996. In addition, GPC requests the proposed amendments, once approved by the NRC, be issued with an immediate effective date and implementation no later than 90 days after issuance.

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U. S. Nuclear Regulatory Commission

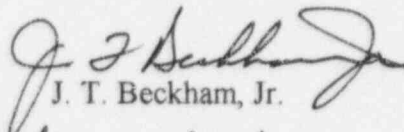
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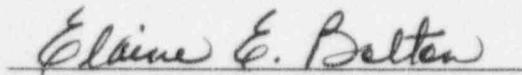
In accordance with the requirements of 10 CFR 50.91, the designated State official will be sent a copy of this letter and all applicable enclosures.

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

Sincerely,


J. T. Beckham, Jr.

Sworn to and subscribed before me this 10th day of November, 1995.



Notary Public

MY COMMISSION EXPIRES AUGUST 3, 1999

SRM/eb

Reference:

1. Letter from Mr. Christopher I. Grimes, Chief, Technical Specifications Branch, U.S. Nuclear Regulatory Commission, to Mr. David J. Modeen, Director, Operations and Management, Nuclear Energy Institute (RE: 10 CFR 50, Appendix J, Option B Model Technical Specifications) dated November 2, 1995.

Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. 10 CFR 50, Appendix J, Option B, Implementation Plan
4. Page Change Instructions and Revised TS Pages
5. Bases Changes

cc: (See next page.)

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cc: Georgia Power Company

Mr. H. L. Sumner, Nuclear Plant General Manager
NORMS

U. S. Nuclear Regulatory Commission, Washington, D. C.

Mr. K. Jabbour, Licensing Project Manager - Hatch

U. S. Nuclear Regulatory Commission, Region II

Mr. S. D. Ebnetter, Regional Administrator

Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

State of Georgia

Mr. J. D. Tanner, Commissioner - Department of Natural Resources

Enclosure 1

Edwin I. Hatch Nuclear Plant Request to Revise Technical Specifications:

Basis for Change Request

Background

The primary containment leakage rate testing program required by 10 CFR 50, Appendix J, includes performance of an Integrated Leakage Rate Test (ILRT) or Type A test, and Local Leakage Rate Tests (LLRTs) or Type B and C tests. The Type A test measures overall leakage rate of the primary reactor containment. The Type B test detects leakage paths and measures leakage for certain primary containment penetrations. The Type C test measures containment isolation valve leakage rates.

Appendix J testing requirements ensure leakage through the primary containment, as well as systems and components penetrating primary containment, does not exceed the allowable leakage rate values specified in the Technical Specifications (TS) or the associated Bases. Compliance with Appendix J testing requirements ensures the primary containment configuration is structurally sound and capable of limiting leakage to the rates assumed in the safety analysis. These requirements also ensure an adequate primary containment boundary is maintained during and after an accident by minimizing potential leakage paths to the environment, thereby assuring the primary containment function assumed in the safety analysis is maintained.

On February 4, 1992, the NRC published Federal Register Notice 57 FR 4166 (Reference 1), presenting the initial planned actions to institute a continuing effort to eliminate prescriptive requirements that are marginal to safety while imposing significant regulatory burdens on licensees. The NRC concluded that decreasing the prescriptiveness of some regulations may improve the regulations' effectiveness by providing licensees the flexibility to implement cost-effective safety measures. The NRC determined the detailed and prescriptive technical requirements contained in some regulations could be improved and replaced with performance-based requirements and supporting regulatory guides.

In accordance with the above conclusions and the prescriptive nature of 10 CFR 50, Appendix J, the NRC indicated that potential modifications to Appendix J could be considered. To support an Appendix J change, the NRC used an analytical approach documented in NUREG-1493, "Performance-Based Containment Leak Test Program," (Reference 2) to determine the impact on safety due to extending Appendix J test intervals. Based on the technical findings discussed in NUREG-1493, the NRC concluded the following:

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Request to Revise Technical Specifications:

Basis for Change Request

- Testing intervals for Type A, B, and C tests can be increased with only a marginal impact on safety and should produce significant savings in future industry testing costs.
- Testing intervals for Type B and C LLRTs can be established based on the experience history of each component.

Based upon these findings, the NRC revised Appendix J by adding Option B (Reference 3) and issued Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," (Reference 4) to provide a performance-based implementation plan for Appendix J, Option B.

The proposed changes incorporate 10 CFR 50, Appendix J, Option B, requirements into the Plant Hatch TS, consistent with the model TS transmitted by NRC letter dated November 2, 1995 (Reference 5). The Option B Model TS were developed in conjunction with the Technical Specifications and the Containment Systems Branches. Unless otherwise noted, the proposed changes described below apply to Unit 1 and Unit 2.

PROPOSED CHANGE 1

- 1A. Relocate the following information to new Administrative Controls section 5.5.12, Primary Containment Leakage Rate Testing Program (hereafter referred to as the "Program"):
 - Definition of L_a .
 - Primary containment leakage rate acceptance criteria.
 - Primary containment air lock acceptance criteria.
 - Frequency Note "SR 3.0.2 is not applicable."
- 1B. Include the following statement in the new Administrative Controls TS section 5.5.12: "The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program."

Basis for Proposed Change 1

Relocation of Appendix J-related requirements to the Program facilitates consistent presentation. The SR 3.0.3 statement is added, consistent with other programs (e.g., Ventilation Filter Testing Program), to clarify that the provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

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Basis for Change Request

Proposed Change 1, consistent with the NRC Option B Model TS (Reference 5), is administrative in nature and does not modify any existing TS requirements.

PROPOSED CHANGE 2

- 2A. Include the following requirements in the new Administrative Controls TS section 5.5.12:

“A program shall be established to implement the leakage rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, ‘Performance-Based Containment Leak-Test Program,’ dated September 1995.”

- 2B. Replace the phrase, “in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions” with the phrase “in accordance with the Primary Containment Leakage Rate Testing Program” in the Surveillance and Frequency columns of SR 3.6.1.1.1 and SR 3.6.1.2.1, in the Frequency column of SR 3.6.1.3.10, and in the Frequency column of SR 3.6.1.3.11 (Unit 2 only).

Basis for Proposed Change 2

As discussed in the Background section above, the NRC identified that the detailed and prescriptive technical requirements contained in 10 CFR 50, Appendix J, could be improved and replaced with performance-based requirements and supporting regulatory guides. NUREG-1493 document the analysis performed to assess the impact on safety associated with performance-based Appendix J test intervals. NUREG-1493 also formed the basis for the NRC modifying 10 CFR 50, Appendix J, to incorporate the option for performance-based leakage rate testing (Option B). In September 1995, the NRC revised Appendix J and issued Regulatory Guide 1.163.

10 CFR 50, Appendix J, Option B, requires that the following information be specified in the TS:

- L_a , the maximum allowable leakage rate at pressure P_a .
- P_a , the calculated peak containment internal pressure related to the design basis loss-of-coolant accident (LOCA).
- Type A test allowable leakage rate with margin.
- Combined Type B and C test allowable leakage rate with margins.
- Regulatory Guide or other implementation document.

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Proposed Change 2 to TS Section 5.0, Administrative Controls, includes these five elements and is consistent with the NRC Option B Model TS (Reference 5).

PROPOSED CHANGE 3

Revise Note 2 to SR 3.6.1.2.1 to state, "...acceptance criteria applicable to SR 3.6.1.1.1" instead of "acceptance criteria of SR 3.6.1.1.1 in accordance with 10 CFR 50 Appendix J, as modified by approved exemptions."

Basis for Proposed Change 3

As described in Proposed Change 1, the acceptance criteria of SR 3.6.1.1.1 are relocated to the Program description in new TS section 5.5.12; therefore, SR 3.6.1.1.1 does not explicitly state the acceptance criteria. As described in Proposed Change 2, references to Appendix J are replaced by references to the Program. The original intent of Note 2 is to ensure the airlock leakage test results are evaluated appropriately with respect to the airlock requirements and the combined Type B and C requirements. Since the Primary Containment Leakage Rate Testing Program contains several different types of acceptance criteria, a simple reference to the Program could lose the Note's intent, and since specific criteria are not stated in SR 3.6.1.1.1, Note 2 is modified as stated above.

Since the primary containment acceptance criteria relocated to new TS section 5.5.12 (Proposed Change 1) include a reference to "10 CFR 50, Appendix J, Option B, as modified by approved exemptions," replacing the 10 CFR 50, Appendix J, statement with, "the Primary Containment Leakage Rate Testing Program," (Proposed Change 2) is redundant. Proposed Change 3 does not modify any technical requirements and is administrative in nature.

PROPOSED CHANGE 4

Specify the value of the peak calculated primary containment internal pressure for the design basis LOCA, P_a , i.e., 49.6 psig for Unit 1; 45.5 psig for Unit 2.

Basis for Proposed Change 4:

The value P_a , which reflects the results of the accident analysis, was previously specified in the Bases. This change represents a more restrictive change to plant operation in that revising P_a requires prior Staff review and approval. This change is consistent with the NRC Option B Model TS (Reference 5) and 10 CFR 50, Appendix J, Option B.

PROPOSED CHANGE 5

The leakage rate acceptance criteria applicable to the first unit startup following required testing is revised from "< 0.60 L_a for the Type B and Type C tests and < 0.75 L_a for the Type A test" to "≤ 0.60 L_a for the combined Type B and Type C tests, and ≤ 0.75 L_a for Type A tests."

Basis for Proposed Change 5:

Option A of 10 CFR 50, Appendix J, specifically states the acceptance criteria are less than 0.60 and 0.75. Appendix J, Option B, references Regulatory Guide 1.163, which references NEI 94-01 (Reference 6) and ANSI/ANS-56.8-1994 (Reference 7), which states acceptance criteria shall not exceed 0.75 L_a, which is mathematically "≤". Relative to 0.60 L_a, NEI 94-01 states the acceptance criterion shall be less than 0.60 L_a, while ANSI/ANS-56.8-1994 states the criterion shall be less than or equal to 0.60 L_a. For consistency both acceptance criteria were chosen as "≤".

The allowance for test results to be "equal to" the acceptance criteria has no measurable impact on the safety analyses which assumes leakage at a rate of 1.0 L_a. The startup acceptance criteria simply provide margin to meeting the safety analyses. This change is consistent with the NRC Option B Model TS (Reference 5).

Comparison with NRC Option B Model Technical Specifications

By letter dated November 2, 1995, the NRC transmitted model TS for implementing Option B to 10 CFR 50, Appendix J. The proposed changes to the TS and Bases are consistent with the Option B Model TS, with the following editorial changes:

1. The clarifying statements "when the gap between the door seals" and "for at least 15 minutes" contained in the current TS airlock acceptance criteria are retained in the proposed TS 5.5.12. The NRC Option B Model TS do not include these phrases.
2. The LCO 3.6.1.1 Bases discussion is clarified to state: "At this time applicable leakage limits specified in the Primary Containment Leakage Rate Testing Program must be met."
3. The bracketed information and associated reviewers' note are addressed in SR 3.6.1.1.1 Bases by adding:

"The Primary Containment Leakage Rate Testing Program is based on the guidelines in Regulatory Guide 1.163 (Ref. 6), NEI 94-01 (Ref. 7), and ANSI/ANS-56.8-1994

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Basis for Change Request

(Ref. 8). Specific acceptance criteria for as found and as left leakage rates, as well as the methods of defining the leakage rates, are contained in the Primary Containment Leakage Rate Testing Program."

The appropriate references are added to the Reference section of the Bases to provide a point of reference (the Program), as well as a reference to the principle regulatory documents, without providing laborious detail included in the Program.

4. The Note 2 description in the Bases for SR 3.6.1.2.1 refers to the acceptance criteria applicable to SR 3.6.1.1.1, rather than to the program as stated in the NRC Model TS. The Bases description is consistent with the actual TS note.
5. References in the Bases are revised consistent with plant convention.
6. Plant-specific Bases that reference Appendix J are revised to reference Appendix J, Option B.

REFERENCES:

1. Federal Register Notice 57 FR 4166, February 4, 1992.
2. "Performance-Based Containment Leak-Test Program," NUREG-1493, September 1995.
3. Federal Register Notice 60 FR 49495, September 26, 1995.
4. "Performance-Based Containment Leak-Test Program," Regulatory Guide 1.163, September 1995.
5. Letter from Mr. Christopher I. Grimes, Chief, Technical Specifications Branch, U.S. Nuclear Regulatory Commission, to Mr. David J. Modeen, Director, Operations and Management, Nuclear Energy Institute (RE: 10 CFR 50, Appendix J, Option B Model Technical Specifications) dated November 2, 1995.
6. "Industry Guideline for Implementing Performance-Based Option B of 10 CFR 50 Appendix J," NEI 94-01, Revision 0, dated July 26, 1995.
7. "Containment System Leakage Testing Requirements," ANSI/ANS-56.8-1994.

Enclosure 2

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10 CFR 50.92 Evaluation

Proposed Changes

The proposed changes incorporate 10 CFR 50, Appendix J, Option B, requirements into the Technical Specifications (TS).

10 CFR 50.92 Evaluation

Georgia Power Company (GPC) has reviewed the proposed TS changes and determined they do not involve a significant hazards consideration based on the following:

1. The proposed changes do not involve a significant increase in the probability of consequences of an accident previously evaluated. The proposed changes do not involve any physical or operational changes to structures, systems or components. The proposed changes provide a mechanism within the TS for implementing a performance-based leakage rate test program which was promulgated by the revision to 10 CFR 50 to incorporate Option B to Appendix J. The TS Limiting Conditions for Operation (LCO) remain unaffected by these changes. Thus, the safety design basis for the accident mitigation functions of the primary containment, the airlocks, and the primary containment isolation valves is maintained. Therefore, these changes will not increase the probability or consequences of an accident previously evaluated.
2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously analyzed. Revising Surveillance Requirement acceptance criteria and frequencies does not physically modify the plant and does not modify the operation of any existing equipment.
3. The proposed changes do not involve a significant reduction in the margin of safety, nor do they affect a safety limit, an LCO, or the manner in which plant equipment is operated. The NRC letter dated November 2, 1995, recognizes that changes similar to the proposed changes are required to implement Option B of 10 CFR 50, Appendix J. In NUREG-1493, "Performance-Based Containment Leak-Test Program," which forms the basis for the Appendix J revision, the NRC concludes that adoption of performance-based test intervals for Appendix J testing will not significantly reduce the margin of safety.

Enclosure 3

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10 CFR 50, Appendix J, Option B, Implementation Plan

Georgia Power Company (GPC) intends to implement the requirements of 10 CFR 50, Appendix J, Option B, shortly following issuance of the requested license amendments. 10 CFR 50, Appendix J, Option B, states:

"Specific guidance concerning a performance based leakage test program, acceptable leakage-rate test methods, procedures, and analyses that may be used to implement these requirements and criteria are provided in Regulatory Guide 1.163."

Regulatory Guide 1.163 references NEI 94-01 and ANSI/ANS-56.8-1994. Plant Hatch's leakage rate testing program will be in compliance with 10 CFR 50, Appendix J, Option B; the proposed TS; and Regulatory Guide 1.163, prior to implementation of the TS amendments.

Relative to implementation of the performance-based program, the following clarifications relative to the timing of procedure revisions and information stated in ANSI/ANS-56.8 and NEI 94-01 are provided.

Procedure Revisions

Procedures associated with conduct of the Type A Integrated Leak Rate Test (ILRT) will be revised to incorporate the methodologies specified in ANSI/ANS-56.8-1994 prior to the next ILRT.

Interval Extensions

If data justifying the extension of a Type B or C test interval have not been evaluated, the test interval will continue to be every refueling cycle. Any Type B and C tests conducted after amendment implementation will utilize ANSI/ANS-56.8 methodology.

Georgia Power Company's Inservice Testing Program, submitted September 1995, references the use of Appendix J testing requirements to meet ASME Operations and Maintenance (OM) Code test requirements. This is to confirm that the test interval in these cases will be determined by OM Code criteria and not the Option B interval extension criteria, if Appendix J testing methodology is utilized to satisfy OM Code test requirements.

NEI Recommended Practices

Sections 8.0 and 10.2 of NEI 94-01 recommend that the combined as-found leakage rates (Type B and C tests) be determined on a Minimum Pathway Leakage Rate (MNPLR) basis for all penetrations be $< 0.60 L_a$ when containment integrity is required. The TS requirement is that the overall leakage rate (Type A test) be $\leq L_a$ when Limiting Condition for Operation (LCO) 3.6.1.1 is applicable. The TS acceptance criterion is a reflection of the safety analysis assumptions. Plant Hatch will maintain a running total of the as-found leakage rates (Type B and C tests) determined on an MNPLR basis for all applicable penetrations. However GPC considers the $0.60 L_a$ to be a performance indication, not a TS Operability Limit. If the $0.60 L_a$ is exceeded, GPC will implement corrective measures to ensure the overall containment leakage remains $\leq 1.0 L_a$.

NEI 94-01 and ANSI/ANS-56.8-1994 indicate that for a two barrier pathway, the Maximum Pathway Leakage Rate (MXPLR) is the measured leakage through the worst of the two isolation valves. If a penetration is isolated by use of one closed and deactivated automatic valve, closed manual valve, or blind flange, GPC considers the MXPLR of the isolated penetration to be the measured leakage through the closed isolation device for purposes of satisfying the as-left leakage acceptance criteria.

Enclosure 4

**Edwin L. Hatch Nuclear Plant
Request to Revise Technical Specifications:**

Page Change Instructions and Revised Pages