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Georgia Power

*the southern electric system*

Power Generation Department

NED-83-416

September 1, 1983

Director of Nuclear Reactor Regulation  
Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
CLARIFICATION OF PURGE AND VENT SUBMITTALS

Gentlemen:

The purpose of this letter is to provide additional 10 CFR 50.92 justification for the two amendments to the Technical Specifications proposed in our submittals of May 31, 1983 and June 15, 1983.

In the May 31, 1983 letter, we proposed a change to Dose Equivalent Iodine (DEI) for Unit 1. Unit 1 was licensed with a DEI limit of 10 microcuries per gram of coolant on a site specific basis. The submittal requested to change this basis to a worst-case non-site specific limit of 0.2 microcuries per gram. This change is clearly in the conservative direction. The change also provided for minor administrative changes in the terminology in the specification and frequency of analyses.

In the June 15, 1983 letter, we proposed a change to purge valve operability specifications for both units. Unit 2 was licensed with a restriction imposed on the amount of time that the 18" purge and vent isolation valves could be open. In subsequent discussions with the NRC Staff it was determined that if: 1) a site specific dose analysis was submitted; 2) measures were taken to protect downstream structures; and 3) valve operability was demonstrated; then the restrictions on valve operability could be lifted. The dose analysis and the valve operability data, with the exception of the seismic test results summary, were submitted in our letter of May 31, 1983. The summary of the seismic test data was included as an attachment to our June 15, 1983 letter. A summary of a proposed design modification to protect downstream structures was also attached to our letter of June 15, 1983. The proposed change cannot and will not be implemented until after the design modification has been made. A commitment similar to the current Unit 2 Technical Specification for valve operability was made for Unit 1 in our letter of October 1, 1982. The intent of the proposed change is to supplant the commitment in the October 1, 1982 letter with a Technical Specification on Unit 1 and remove the restrictions on Unit 2 upon implementation of the design modification on both units.

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11

Director of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
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September 1, 1983  
Page Two

In the attachments to this letter we are providing the requested 10 CFR 50.92 analysis for each proposed change to the Technical Specifications.

If you have further questions, please contact this office.

Very Truly Yours,



L. T. Gucwa  
Manager-Nuclear Engineering and  
Chief Nuclear Engineer

MJB  
Attachments  
xc: J. P. O'Reilley  
H. C. Nix, Jr.  
Senior Resident Inspector

ATTACHMENT 1  
NRC DOCKET 50-321  
OPERATING LICENSE DPR-57  
EDWIN I. HATCH NUCLEAR PLANT UNIT 1  
CLARIFICATION OF PURGE AND VENT SUBMITTALS  
DOSE EQUIVALENT IODINE (DEI)  
Letter of May 31, 1983

1. Change from "10 microcuries per gram" to "0.2 microcuries per gram":

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. The resultant doses from a potential accident are less since the allowable initiating point for the transient is lower. The change constitutes a major decrease in the effects of accidents previously analyzed, does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

2. Change from operation at "equilibrium values by a factor of more than 10" to "less than or equal to 4.0 microcuries per gram":

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. The resultant doses from a potential accident are less since the allowable initiating point for the transient is lower. The change constitutes a major decrease in the effects of accidents previously analyzed, does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

3. Change from "more than 5 percent of its yearly power operation" to "does not exceed 800 hours in any consecutive 12 month period":

BASIS:

The change does not raise the probability or the consequences of an accident already evaluated. The change by itself may increase the allowable time in excess of the DEI limit. However, the lower level of allowable DEI offsets any increase in time exposure. There are no new modes of operation. There is no significant reduction in the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and 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 April 6, 1983, issue of the Federal Register.

This change is also administrative in that there is a change in nomenclature. The proposed change in nomenclature does not: involve a significant increase in the probability or consequences of an accident previously evaluated; create the possibility of an accident of a type different from any evaluated previously; or involve a significant reduction in a margin of safety. Therefore, this change is consistent with Item (i) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

4. Add to the Technical Specifications:

"Should the total operating time of a specific activity greater than 0.2 microcuries per gram dose equivalent I-131 exceed 500 hours in any consecutive 6 month period, the licensee shall report the number of hours of operation above this limit to the NRC within 30 days":

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. The resultant doses from a potential accident are less since the allowable initiating point for the transient is lower. The change constitutes a major decrease in the effects of accidents previously analyzed, does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

5. Change from "steam line isolation valves shall be closed immediately" to "steam line isolation valves closed within 12 hours":

BASIS:

The change does not raise the probability or the consequences of an accident already evaluated. The change by itself may increase the allowable time in excess of the DEI limit. However, the lower level of allowable DEI offsets any increase in time exposure. There are no new modes of operation. There is no significant reduction in the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and 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 April 6, 1983, issue of the Federal Register.

6. Change "isotopic" to "iodine":

BASIS:

This change is administrative in that it is a change in nomenclature. The change is a clarification of an existing practice. Without this change the Technical Specification could be construed to mean that the total isotopic inventory must be converted to an equivalence of I-131. This is clearly not the intent of the specification. The intent is that all iodine

isotopes must be converted to an equivalence of I-131. The proposed change does not: involve a significant increase in the probability or consequences of an accident previously evaluated; create the possibility of an accident of a type different from any evaluated previously; or involve a significant reduction in a margin of safety. Therefore, this change is consistent with Item (i) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

7. Add to the Technical Specifications: "(net change averaged for 1 hour)":

BASIS:

This change is administrative in that it is a clarification in nomenclature. The proposed change does not: involve a significant increase in the probability or consequences of an accident previously evaluated; create the possibility of an accident of a type different from any evaluated previously; or involve a significant reduction in a margin of safety. Therefore, this change is consistent with Item (i) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

8. Add to the Technical Specifications:

"3) ...at release rate less than 80,000 microcuries per second, or 4) The off-gas levels at the SJAE, increases by more than 15% in 1 hour at release rate greater than 75,000 microcuries per second."

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. By a more restrictive limitation of when samples must be taken, the net effect is an improvement in the data base available to the plant staff. The resultant doses from a potential accident are less since the allowable initiating point for the transient is lower. The change constitutes a major decrease in the effects of accidents previously analyzed, does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

9. Changes to the bases reflect the above mentioned changes:

BASIS:

These changes overall constitute more restrictive operational limitations to Unit 1. The resultant doses from a potential accident are less since the allowable initiating point for the transient is lower. These changes constitute a major decrease in the effects of accidents previously analyzed, do not create any new accidents, and increases the margin of safety. Therefore, the results of these changes are clearly within acceptance criteria, and these changes are consistent with Items (i), (ii) and (vi) of

the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.



ATTACHMENT 2  
NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
CLARIFICATION OF PURGE AND VENT SUBMITTALS  
PURGE VALVE OPERABILITY  
Letter of June 15, 1983

1. (Unit 1) Add to the Technical Specifications:  
"3.7.A.8 Primary Containment Purge System a.) When primary containment is required, all drywell and suppression chamber 18 inch purge supply and exhaust isolation valves shall be operable and in the fully closed position except when required for inerting, deinerting, or pressure control. b.) Each drywell and suppression chamber 18 inch purge supply and exhaust isolation valve shall have a leakage rate as specified in 4.7.A.2. If either of these requirements cannot be met, close the valve(s) or otherwise isolate the penetration(s) within 4 hours or be in at least Hot Shutdown within the next 12 hours and in Cold Shutdown within the next 24 hours.  
4.7.A.8 Primary Containment Purge System a.) Each drywell and suppression chamber 18 inch purge supply and exhaust isolation valve shall be verified to be closed at least monthly. b.) Each refueling outage each drywell and suppression chamber 18 inch purge supply and exhaust isolation valve with a resilient material seat shall be demonstrated operable by having its valve seat replaced and verifying that the leakage rate is within its limit."

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. The probability of a potential accident is not changed. The effects of a postulated accident are not changed since assurance is provided that the downstream filters are protected from the LOCA induced pressure spike by the proposed design change. The Technical Specification change does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and 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 April 6, 1983, issue of the Federal Register.

2. (Unit 1) Additions to the bases to reflect the above mentioned change:

BASIS:

This change constitutes a more restrictive operational limitation to Unit 1. The probability of a potential accident is not changed. The effects of a postulated accident are not changed since assurance is provided that the downstream filters are protected from the LOCA induced pressure spike by the proposed design change. The Technical Specification change does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of

Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

3. (Unit 2) Deletion of 4.6.1.1.b:

BASIS:

This specification is being replaced by 3/4.6.6.5. This change does not change the effects or probability of accidents previously analyzed, does not create any new accidents, or decrease the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (i) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

4. (Unit 2) Add to the Technical Specifications:

"CONTAINMENT SYSTEMS      PRIMARY CONTAINMENT      PURGE SYSTEM      LIMITING  
CONDITION FOR OPERATION

3.6.6.5 The drywell and suppression chamber 18 inch purge supply and exhaust isolation valves shall be OPERABLE with: a.) Each valve may be open for purge system operation for inerting, deinerting and pressure control; b.) A leakage rate such that the provisions of Specification 3.6.1.2 are met.

APPLICABILITY: OPERATIONAL CONDITIONS 1,2 and 3.

ACTION: a.) With an 18 inch drywell and suppression chamber purge supply and/or exhaust isolation valve(s) inoperable or open for reasons other than inerting, deinerting or pressure control, close the open 18 inch valve(s) or otherwise isolate the penetration(s) within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.6.5 The primary containment purge system shall be demonstrated OPERABLE: at least once per 31 days, when not purging and venting, by verifying that each 18 inch drywell and suppression chamber valve is closed; at least once per 18 months by replacing the valve seat of each 18 inch drywell and suppression chamber purge supply and exhaust isolation valve having a resilient seat and verifying that the leakage rate is within its limit."

BASIS:

This change is administrative in that it is a change in nomenclature by defining when the valves may be open rather than a set number of hours per year. By so doing the proposed change does not: involve a significant increase in the probability or consequences of an accident previously evaluated; create the possibility of an accident of a type different from any evaluated previously; or involve a significant reduction in a margin of safety. Therefore, this change is consistent with Item (i) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

This change also constitutes a more restrictive operational limitation to Unit 2 by mandating when the valve seats must be



replaced. The probability of a potential accident is not changed by the limitations on the length of time that a valve seal may be in service. The change provides added assurance that the effects of the same postulated accident are as described in the FSAR. The change constitutes no change in the probability or effects of accidents previously analyzed, does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

This change constitutes a more restrictive operational limitation to Unit 2. The probability of a potential accident is not changed. The effects of a postulated accident are not changed since assurance is provided that the downstream filters are protected from the LOCA induced pressure spike by the proposed design change. The Technical Specification change does not create any new accidents, and increases the margin of safety. Therefore, the results of this change are clearly within acceptance criteria, and this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

5. (Unit 2) Additions to the bases to reflect the above mentioned changes:

BASIS:

These changes overall constitute more restrictive operational limitations to Unit 2. The probability of a potential accident is not changed. The effects of a postulated accident are not changed since assurance is provided that the downstream filters are protected from the LOCA induced pressure spike by the proposed design change. The Technical Specification changes do not create any new accidents, and increase the margin of safety. Therefore, the results of these changes are clearly within acceptance criteria, and this change is consistent with Items (i), (ii) and (vi) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.