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HL-1685
002358

June 13, 1991

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

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
SPENT FUEL POOL WATER DEPTH ABOVE IRRADIATED FUEL,
CORRECTION OF ADMINISTRATIVE ERRORS, AND
POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

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 Units 1 and 2 Technical Specifications, Appendix A to Operating Licenses DPR-57 and NPF-5.

The first proposed change involves revisions to Plant Hatch Units 1 and 2 Technical Specifications to modify the minimum required water depth covering irradiated fuel assemblies seated in the fuel storage racks. This change is necessary because the available depth of water over the fuel assemblies has been reduced by the installation of the high density fuel storage racks and a determination that the spent fuel pool depth requirement will be measured from the top of the stored assembly upper tie plate. In addition, this change will make the surveillance requirements for assessing the spent fuel pool water level and the associated Bases the same for the two units. This proposed change will also correct typographical errors in two Unit 2 tables.

Specifically, the Hatch-1 and Hatch-2 Technical Specifications will require at least 21 feet of water be maintained above irradiated fuel assemblies seated in the storage racks. The Bases will define the top of fuel assemblies as the top of the upper tie plates and will discuss the fraction of iodine removed by the pool coolant following a fuel handling accident in the spent fuel pool. The Unit 1 surveillance interval for determining the spent fuel pool water level will be increased from once per day to once per week, consistent with Unit 2 and the BWR-4 Standard Technical Specifications. This change will also correct typographical errors that occurred when the pages for Amendment 109 for Unit 2 were printed.

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The second proposed change involves revisions to Plant Hatch Unit 1 Technical Specifications related to the calibration frequency associated with the post-LOCA radiation monitors. The Hatch-1 Technical Specifications presently require that the post-LOCA radiation monitors be calibrated at least once every 6 months. This calibration interval is requested to be revised to at least once every 18 months which will maintain consistency with the Hatch-2 Technical Specifications and the BWR-4 Standard Technical Specifications for radiation monitors of a similar function and type. This proposed change will also clarify Hatch-1 Technical Specifications Table 3.2-11 footnote (c) concerning LCO actions.

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

Enclosure 2 details the bases for our determination that the proposed changes do not involve a significant hazards consideration.

Enclosure 3 provides page change instructions for incorporating the proposed changes. The proposed changed Technical Specifications pages for Units 1 and 2, including markups, follow Enclosure 3.

To allow time for procedure revisions and orderly incorporation into copies of the Technical Specifications, GPC requests the proposed amendment, once approved by the NRC, be issued with an effective date to be no later than 60 days from the date of issuance of the amendment.

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. R. P. McDonald states that he is executive vice president and is duly 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.

GEORGIA POWER COMPANY

BY:


R. P. McDonald

Sworn to and subscribed before me this 13th day of June 1991.



Notary Public

MY COMMISSION EXPIRES JANUARY 12, 1993

RPM:JMG/gps

U.S. Nuclear Regulatory Commission

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Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Page Change Instructions

cc: Georgia Power Company

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Mr. H. L. Sumner, Jr., General Manager-Plant Hatch

Mr. J. D. Heidt, Manager, Engineering and Licensing - Plant Hatch
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U.S. Nuclear Regulatory Commission, Washington, D.C.

Mr. K. Jabbour, Licensing Project Manager - Hatch

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Mr. L. D. Wert, Senior Resident Inspector - Hatch

State of Georgia

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

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ENCLOSURE 1

PLANT HATCH-UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
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CORRECTION OF ADMINISTRATIVE ERRORS, AND
POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 1:

This proposed change will:

- 1) Revise Hatch-1 Technical Specification 3.10.D and the associated Bases to require at least 21 feet of water above irradiated fuel assemblies seated in the spent fuel pool (SFP) fuel storage racks. A similar change to the Hatch-2 Technical Specification 3/4.9.10 and the associated Bases is also proposed. The change to the Unit 1 and 2 Bases will define the top of the fuel assembly as the top of the upper tie plate and delineate the fraction of iodine removed in the SFP coolant following a postulated fuel handling accident.
- 2) Modify Hatch-1 Technical Specification 4.10.D to require surveillance of the SFP water level every 7 days, consistent with the Hatch-2 Technical Specifications and the BWR-4 Standard Technical Specifications requirements.
- 3) Correct editorial errors in Hatch 2 Tables 3.3.2-1 and 3.8.2.6-1.

BASIS FOR PROPOSED CHANGE 1:

The SFP system and high density fuel storage racks do not support the current 23 foot depth requirement in the Hatch-2 Technical Specifications, if the depth requirement is measured from the top of the stored bundle upper tie plate to the low level SFP alarm. Therefore, GPC has evaluated the relevant accident analyses to support a change to 21 feet. One of the assumptions in the calculation of the radiological consequences of a postulated fuel handling accident in the spent fuel pool is the amount of radioactive iodine removed by the SFP coolant following the accident. The acceptance criteria established in the NRC Standard Review Plan 15.7.4 for the radiological consequences for this event is a thyroid dose of 75 rem and a whole-body dose of 6 rem at the exclusion area and low population zone boundaries. As described in NRC Regulatory Guide (RG) 1.25, a water

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS SPENT FUEL POOL WATER DEPTH ABOVE IRRADIATED FUEL, CORRECTION OF ADMINISTRATIVE ERRORS, AND POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

BASIS FOR CHANGE REQUEST

depth of 23 feet over the fuel rods would remove 99% of the iodine assumed to be released from the ruptured rods; however, it also acknowledged that a smaller decontamination factor may be used if justified by a conservative calculation. Using the methodology prescribed in RG 1.25, a calculation has been performed, and it was concluded that a water level of 21 feet above the top of the upper tie plates would result in an iodine reduction of 98.6%. The resultant calculated inhalation (thyroid) exposures at the exclusion area and low population zone boundaries were .358 rem and .370 rem, respectively. Because whole-body exposures are primarily due to the noble gases which are not removed by the pool coolant, the original whole-body exposure determination is not affected by these changes. Thus, the radiological consequences of a fuel handling accident in the SFP would remain far below the 75 rem thyroid and 6 rem whole-body acceptance limits contained in Standard Review Plan 15.7.4. At the minimum pool level (low level alarm), the top of the upper tie plates of fuel assemblies are more than 21 feet below the coolant surface.

The Hatch-1 and Hatch-2 Bases sections will explicitly recognize that the NRC has interpreted the top of a fuel assembly to mean the top of the upper tie plate for purposes of fuel storage.

The current Hatch-1 Technical Specifications require the SFP water level be determined daily when irradiated fuel is stored in the pool; however, the surveillance interval is only once per week for Hatch-2 and in the BWR-4 Standard Technical Specifications.

Footnote (i) in Table 3.3.2-1 refers to the suppression pool area temperature time relays used for valve isolation (item 4.g of the table). During the printing of the amended Technical Specifications page for Amendment 109, footnote (i) was inadvertently moved to 4.h. This footnote should not have been moved, nor did the NRC approve this change when Amendment 109 was issued. Similarly, items f.16 and f.17 of Table 3.8.2.6-1 were inadvertently retained during the printing of Amendment 109, but should have been deleted. The NRC approved the relocation of these two "magnetic only" (mo) drywell cooling breakers as items f.14 and f.15 of that table when Amendment 109 was issued.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS
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POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 2:

This proposed change will:

- 1) Revise the Hatch-1 Technical Specification Table 4.2-11 to require that the post-LOCA radiation monitors be calibrated at least once every 18 months.
- 2) Revise footnote (c) of Table 3.2-11 concerning LCO actions.

BASIS FOR PROPOSED CHANGE 2:

The Hatch-1 Technical Specifications presently require that the post-LOCA radiation monitor be calibrated at least once every 6 months. These monitors are considered a passive portion of radiation control because they do not actively handle or control radiation hazards but only provide alarm capability. This calibration interval is requested to be revised to at least once every 18 months which will maintain consistency with the Hatch-2 Technical Specifications and the BWR-4 Standard Technical Specifications for radiation monitors of a similar function and type. Identical type and manufacture instruments are installed as post-LOCA monitors in Hatch-2. The Hatch-2 Technical Specification calibration interval for these instruments is at least once every refueling outage, which is defined in both units as 18 months. Field data of the Hatch-1 post-LOCA monitors was reviewed for two successive 18 month source calibrations. The instruments were found to be within the acceptance criteria. These instruments did not drift outside their acceptance range over the 36 month period; therefore, it can be concluded that there is sufficient stability in the monitor to allow calibration on 18 month intervals rather than 6 month intervals.

The LCO action stated in Hatch-1 Technical Specifications Table 3.2-11 note (c) is being clarified by substituting the comparable Hatch-2 Technical Specifications ACTION. This revision will provide consistency between the actions of both unit's technical specifications.

ENCLOSURE 2

PLANT HATCH-UNITS 1 AND 2
NRC DOCUMENTS 50-321 AND 50-365
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
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10 CFR 50.92 EVALUATION

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. The bases for this determination are as follows:

DESCRIPTION OF PROPOSED CHANGE 1:

- 1) Revise Hatch-1 Technical Specification 3.10.D and the associated Bases to require at least 21 feet of water above irradiated fuel assemblies seated in the spent fuel pool (SFP) fuel storage racks. A similar change is proposed for Hatch-2 Technical Specification 3/4.9.10 and the associated Bases.
- 2) Modify Hatch-1 Technical Specification 4.10.D to require surveillance of the SFP water level every 7 days, consistent with the Hatch-2 Technical Specifications and the BWR-4 Standard Technical Specifications requirements.
- 3) Correct editorial errors in Hatch 2 Tables 3.3.2-1 and 3.8.2.6-1.

BASIS FOR PROPOSED CHANGE 1

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION:

The change does not involve a significant hazards consideration for the following reasons:

1. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes to the Hatch-1 and Hatch-2 Technical Specifications concerning minimum water depth, including surveillance requirements, above irradiated fuel do not involve any changes in plant

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS SPENT FUEL POOL WATER DEPTH ABOVE IRRADIATED FUEL, CORRECTION OF ADMINISTRATIVE ERRORS, AND POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

10 CFR 50.92 EVALUATION

equipment or operation, including setpoint changes for spent fuel pool water level; therefore, they do not result in a significant increase in the probability of an accident previously evaluated in the FSARs. Calculations of the radiological consequences of the proposed minimum water depth covering irradiated fuel during storage (21 feet over the top of the upper tie plates) have shown that exposures at the exclusion area and low population zone boundaries are significantly below the acceptance criteria for a postulated fuel handling accident in the spent fuel pool. Thus, these changes will not result in a significant increase in the consequences of an accident previously evaluated in the Hatch FSARs.

The correction of errors in final, printed Technical Specifications pages is administrative only and does not result in any changes to plant systems, components, or plant operations; thus, it does not significantly increase the probability or consequences of an accident previously evaluated in the FSARs.

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed Technical Specifications changes do not create the possibility of an accident of a different type than any previously evaluated in the Hatch FSARs because they do not change the physical configuration of the plant or the mode of operation or setpoints of any equipment in the plant.

3. The proposed amendment does not involve a significant reduction in the margin of safety.

A calculation of exposures at the exclusion area and low population zone boundaries determined that the thyroid doses would be .358 and .370 rem, respectively, when 21 feet of water covers the top of the upper tie plates of irradiated fuel seated in the SFP storage racks. This compares to .256 and .264 rem, respectively, when the water depth

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS SPENT FUEL POOL WATER DEPTH ABOVE IRRADIATED FUEL, CORRECTION OF ADMINISTRATIVE ERRORS, AND POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

10 CFR 50.92 EVALUATION

is 23 feet. The difference in these exposures is due to the reduced iodine removed by the SFP coolant when the depth is 21 feet instead of 23 feet. Thus, there is only a slight increase in the calculated radiological consequences of the fuel handling accident. However, these exposures are still far below the Standard Review Plan acceptance criteria for thyroid dose of 75 rem. Whole-body exposures are primarily due to the noble gases which are not removed by the SFP coolant; the original determination of whole-body exposures is not affected by these changes. Since the change in water depth covering irradiated fuel in the SFP storage racks and the resultant fraction of iodine removed by the coolant following a postulated fuel handling accident in the spent fuel pool will not result in the acceptance limit being exceeded, there is no significant decrease in the margin of safety as a result of this change.

Changing the Unit 1 surveillance requirement for determining the SFP water level from daily to weekly will not reduce the margin of safety because the radiological consequences of a fuel handling accident in the SFP will not exceed the acceptance limit for that event even when the Hatch-1 and Hatch-2 pool levels are as low as their low level alarms.

Correcting typographical errors does not significantly reduce the margin of safety since it is only editorial in nature. Safety analysis assumptions and equipment performance are not changed in any way.

PROPOSED CHANGE 2:

This proposed change will:

- 1) Revise the Hatch-1 Technical Specification Table 4.2-11 to require that the post-LOCA radiation monitor be calibrated at least once every 18 months.
- 2) Revise Hatch-1 Technical Specification Table 3.2-11 footnote (c) concerning LCO actions.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS
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10 CFR 50.92 EVALUATION

BASIS FOR PROPOSED CHANGE 2

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION:

The change does not involve a significant hazards consideration for the following reasons:

1. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The Hatch-1 Technical Specifications presently require that the post-LOCA radiation monitor be calibrated at least once every 6 months. These monitors are considered a passive portion of radiation control because they do not actively handle or control radiation hazards but only provide alarm capability. This calibration interval is requested to be revised to at least once every 18 months which will maintain consistency with the Hatch-2 Technical Specifications and the BWR-4 Standard Technical Specifications for radiation monitors of a similar function and type. Identical type and manufacture instruments are installed as post-LOCA monitors in Hatch-2. The Hatch-2 Technical Specification calibration interval for these instruments is at least once every refueling outage, which is defined in both units as 18 months. Field data of the post-LOCA monitors was reviewed for two successive 18 month source calibrations. In each instance, the instruments were found to be within the acceptance criteria. These instruments did not drift outside their acceptance range over the 36 month period; therefore, it can be concluded that there is sufficient stability in the monitor to allow calibration on 18 month intervals rather than 6 month intervals.

The LCO action stated in Hatch-1 Technical Specifications Table 3.2-11 note (c) are being clarified by substituting the comparable Hatch-2 ACTION statement which has been found acceptable by the NRC acceptance of the Hatch-2 Technical Specifications. This revision will provide consistency between the actions of both unit's technical specifications. Thus, these changes will not result in a significant increase in the probability of an accident previously evaluated in the FSARs.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS
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10 CFR 50.92 EVALUATION

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed Technical Specifications changes do not create the possibility of an accident of a different type than any previously evaluated in the Hatch FSARs because they do not change the physical configuration of the plant or alter the mode of operation or setpoints of any equipment in the plant.

3. The proposed amendment does not involve a significant reduction in the margin of safety.

Changing the surveillance interval of the post-LOCA radiation monitors and revising a note in a table to make both consistent with the present Hatch-2 Technical Specifications will not involve a reduction in the margin of safety.