UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 106 TO FACILITY OPERATING LICENSE NO. DPR-57

AND AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. NPF-5

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNITS NOS. 1 AND 2

DOCKETS NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated May 31, 1983, as supplemented September 1 and November 22, 1983, Georgia Power Company (licensee) requested changes in the Hatch Units 1 and 2 Technical Specifications to bring them more in line with current BWR Standard Technical Specifications. The amendments would result in a number of modifications to the current Technical Specifications. Each modification is identified below followed by an evaluation of the acceptability of the change.

2.0 EVALUATION

HATCH UNIT 1

Change 1:
Reduction of the equilibrium activity concentration limit for reactor coolant from 10 μCi/gm to 0.2 μCi/gm of dose equivalent I-131.

Evaluation of Change 1
This change results in a more restrictive operational limitation to Unit 1 (0.2μCi/gm versus 10 μCi/gm). The resultant doses from postulated accidents which involve release of primary coolant are less because the coolant activity level allowed at the initiation of the transient is less.

Change 2:
Reduction of the maximum allowable activity concentration for the reactor coolant from "a factor of ten times the equilibrium value" to 4.0 μCi/gm.

Evaluation of Change 2
Same as change #1 above.

Change 3:
Increase of the maximum operational time per year that the reactor coolant activity is allowed to exceed the equilibrium value.

Evaluation of Change 3
Even though the primary coolant activity is allowed to be above the equilibrium value for a longer period of time, the allowable concentration at the onset of postulated accidents is lower and as a result the postulated doses would be lower.

Change 4:
Addition of a reporting requirement for cases where the equilibrium activity limit is exceeded for more than 500 hours in a six-month period.

Evaluation of Change 4
The proposed change would allow operation above the equilibrium limit for a longer period. However, it should be noted that the changes utilize equilibrium limits much lower than those allowed by the current Technical Specifications and the change would not result in higher consequences of postulated accidents.

Change 5:
Increase in the time allowed for isolating steam valves in the event that the maximum allowable activity limit is exceeded.

Evaluation of Change 5
The change is more complex than just a change in time for closing the main steam isolation valves. The current Unit 1 Technical Specifications state, "...the reactor shall be shutdown, and the steam line isolation valves shall be closed immediately." The proposed change states, "...be in at least HOT SHUTDOWN with the main steam line isolation valves closed with 12 hours." The latter approach is consistent with the Standard Technical Specifications and is preferable because it does not result in unnecessary cycling of safety valves by allowing for an orderly shutdown of the reactor by the use of the main condenser and its associated off-gas system.

Change 6:
Increase in the dose equivalent I-131 concentration above which additional samples may be required to be taken from 0.1μ Ci/gm to 0.2 μCi/gm.

Evaluation of Change 6
The proposed change is consistent with the use of the equilibrium limit of 0.2 μCi/gm in the Standard Technical Specifications. Use of a more restrictive value does not contribute to plant safety because limits less than the equilibrium value do not cause any change in plant operations and additional samples would result in undue exposure to plant personnel taking and analyzing the samples.

Change 7:
Increase in the rate of increase in offgas activity level at which reactor coolant samples are required to be taken for cases where the offgas activity levels are greater than 75,000 μCi/sec.

Evaluation of Change 7
This change is justified (and is consistent with the BWR STS) because increases of 10,000 μCi/gm at release rates far greater than 75,000 μCi/gm become smaller and smaller fractions. Therefore, the limit was established so that sampling would occur only when "significant" changes occurred in the steam jet air ejector release rate.

Change 8:
Reduction in the reactor coolant dose equivalent I-131 concentration at which reactor coolant samples are required to be taken from 10 μCi/gm to 4.0 μCi/gm.

Evaluation of Change 8
This change results in a more restrictive operational limitation.

Change 9:
Deletion of the current wording that states "at least three consecutive samples shall be taken in all cases."

Evaluation of Change 9
Deletion of this wording is consistent with the BWR Standard Technical Specifications and removes the unnecessary requirement to take additional samples when the activity level is below the threshold of 0.2 μCi/gm.

Change 10:
Add a requirement that the first additional coolant sample shall be taken between two and six hours following a change in power or offgas activity level.

Evaluation of Change 10
This change is more restrictive than the current Technical Specification and provides clarification as to when the first sample should be taken.

Change 11:
Increase in the reactor coolant sample total iodine activity below which an isotopic analysis to determine equivalent I-131 is not required.

Evaluation of Change 11
This change is consistent with the proposed Technical Specification equilibrium limit. Because activity concentrations below the equilibrium limit do not cause any change in plant operations, there is no need to do isotopic analysis when the total iodine activity is below the equilibrium limit.

Change 12:
Replacement of the words "isotopic mixture actually present" with "iodine mixture actually present" and add the words "Following a power change exceeding 15% of rated thermal power in less than one hour."

Evaluation of Change 12
These changes are editorial in nature and have negligible impact on the specification.

HATCH UNIT 2

Change 1:
Require sampling when the offgas activity level increased more than 15% in one hour at a release rate greater than 75,000 Ci/sec rather than at the currently specified release rate of 80,000 Ci/sec.

Evaluation of Change 1
This change makes this Technical Specification consistent with Unit 1 and represents more restrictive operating procedures.

SUMMARY

Based on the above evaluations of the proposed changes, we find the proposed changes to the Hatch Unit 1 and 2 Technical Specifications on primary coolant activity acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 4, 1985

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