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Georgia Power

the southern electric system

J. T. Beckham, Jr.
Vice President - Nuclear
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May 3, 1993

Docket Nos. 50-321
50-366

HL-3272
005344

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

Edwin I. Hatch Nuclear Plant
Request for Clarification on Main Steam Line Radiation
Monitor Trips Technical Specifications Amendment Request

Gentlemen:

On April 27, 1993, a telephone conference was held among representatives of the Nuclear Regulatory Commission (NRC), Georgia Power Company (GPC) and General Electric concerning GPC's Technical Specifications submittal to the NRC, dated October 19, 1993, addressing removal of the main steam line radiation monitor trips. This letter documents the results of that conference.

The NRC reviewers questioned a statement on page E2-2 of the submittal dealing with the respective iodine washout/plateout values given in NEDO-31400 and the Hatch 2 FSAR. The statement in question reads:

"The smaller Unit 2 condenser leak rate and Chi/Q compensate for the higher iodine washout/plateout."

Table 2 on page E2-9 of the submittal lists the assumptions for the iodine activity remaining airborne in the condenser. Ten percent is assumed to remain airborne per NEDO-31400 (90 percent plateout) and 50 percent is assumed to remain airborne in the Unit 2 FSAR (50 percent plateout). Therefore, since more iodine is available to leak per the FSAR assumption, this is one parameter not bounded by NEDO-31400. The statement on page E2-2 would be clearer if it read:

"The smaller Unit 2 condenser leak rate and Chi/Q compensate for the fact that the FSAR analysis assumes a higher percentage of iodine remains airborne in the condenser."

Attached is a revision of page E2-2 which makes the above listed change.

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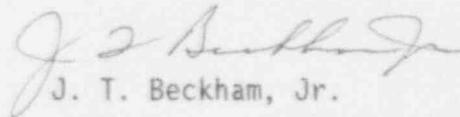
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All conclusions and determinations made in GPC's October 19, 1992 submittal are still valid. Please contact this office if you have further questions.

Sincerely,


J. T. Beckham, Jr.

OCV/cr

Enclosure: Page E2-2 of 10 CFR 50.92 Evaluation

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
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. L. D. Wert, Senior Resident Inspector - Hatch

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS TO REMOVE THE MAIN STEAM LINE HIGH RADIATION MONITOR REACTOR SCRAM AND GROUP ISOLATION FUNCTIONS 10 CFR 50.92 EVALUATION

mode initiation logic from the MSLRMs. These logic systems do not affect the operation of any equipment having the potential to cause a CRDA. Therefore, the probability of a CRDA is not increased or in any way affected by the proposed change.

In NEDO-31400, GE included the safety evaluation (requested by the BWROG) addressing the removal of the scram and MSIV isolation. In the evaluation, GE concludes that eliminating the MSLRM trips results in exposures that are small fractions of 10 CFR 100 limits. GE also assessed the applicability of NEDO-31400 to Plant Hatch. Table 1 of this enclosure lists the assumptions presented in both NEDO-31400 and the Hatch 1 FSAR. Table 2 lists the assumptions of NEDO-31400 and the Hatch 2 FSAR. Table 2 shows that two parameters of the Unit 2 CRDA analysis are not bounded by NEDO-31400 parameters:

- a. The fraction of damaged fuel that melts - The difference in the fraction of damaged fuel that melts is offset by the number of failed fuel rods. NEDO-31400 assumes 850 rods fail; the Hatch 2 analysis assumes the failure of 770 rods. Also, the Unit 2 power per fuel rod is lower than that assumed in the NEDO.
- b. The iodine washout/plateout in the condenser - The smaller Unit 2 condenser leak rate and Chi/Q compensate for the fact that the FSAR analysis assumes a higher percentage of iodine remains airborne in the condenser.

With the MSLRM scram and trip functions intact, the resulting Hatch Unit 2 offsite doses are 1.3 rem thyroid and 0.014 rem whole body. With the MSLRM trip functions eliminated and using the methods described in NEDO-31400, the Unit 2 doses are 0.024 rem whole body and negligible for thyroid. The negligible thyroid dose is attributed to the iodine retention in the charcoal beds of the off-gas system. The whole-body dose increase from 0.014 rem to 0.024 rem is not significant, especially when the thyroid dose is negligible. In quantitatively comparing the two cases, GE used an "effective dose equivalent" (EDE), calculated using weighting factors obtained from 10 CFR 20.1003, so the doses could be expressed in terms of a whole-body dose. For the original case of the MSIVs closed, the EDE is 0.053 rem. With the removal of the MSIV trip, the EDE is just 0.024 rem, since the thyroid dose is negligible. This supports the conclusion that eliminating the MSLRM scram and isolation functions will not significantly increase the consequences of a Unit 2 CRDA.