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January 13, 1997

Docket Nos. 50-321
50-366

HL-5285

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

Edwin I. Hatch Nuclear Plant
Reporting of Changes and Errors in
ECCS Evaluation Models

Gentlemen:

The Code of Federal Regulations [10 CFR 50.46(a)(3)(i)] requires the licensee estimate the impact of changes and errors in emergency core cooling system (ECCS) evaluation models or in the application of these models. Regulation 10 CFR 50.46(a)(3)(ii) specifies reporting requirements based on the sum of the absolute value of these changes and errors in calculated peak clad temperature (PCT). If the absolute sum of the changes or errors is significant (exceeds 50°F), a 30-day report is required. If not, an annual report is required summarizing the effect on the limiting ECCS analysis. Since the 1988 revision to 10 CFR 50.46, General Electric (GE) has been compiling all changes and errors in their approved SAFER/GESTR ECCS evaluation method and providing that information to the Nuclear Regulatory Commission (NRC) and Georgia Power Company (GPC). It had been GE's and GPC's position that this generic report satisfied the requirements of 10 CFR 50.46 (a)(3)(i) and (ii) for Plant Hatch.

The NRC staff has recently informed GE that each licensee needs to file a report for each plant. The report may utilize applicable GE "generic" reports, plus any plant-unique changes or errors. This letter is intended to fulfill this reporting requirement.

Georgia Power Company and GE have evaluated the impact of generic and plant-unique changes and errors using References 1-9. Table 1 summarizes the results and shows the absolute value of the changes and errors is approximately 215°F. This number is conservatively large because it represents the absolute sum of both positive and negative PCT changes and errors which have occurred since 1988. It is expected a re-analysis will show the net PCT effect of all these items is small. Reference 10 documents a 20°F increase to the PCT added as a result of the power uprate program. It should be noted the 1986 SAFER/GESTR ECCS evaluation resulted in approximately 675°F of PCT margin to the 2200°F limit. No changes in plant design or operation are required as a result of this letter.

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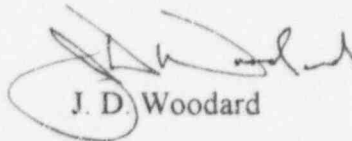
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Georgia Power Company is now pursuing an extended power uprate program. Part of the analysis work to request a license change is to re-evaluate the ECCS performance at 102% of the target power level of 2763 MWt. The ECCS evaluation is scheduled for completion in March of 1997 and will provide a new "baseline" and incorporate the changes and errors contained in References 1-9.

Please contact this office if you have questions.

Sincerely,


J. D. Woodard

GKM/eb

Enclosures:

1. Table 1 - Estimated PCT Change for Plant Hatch October 1988 through December 1996
2. References

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. L. A. Reyes, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

**Table 1 - Estimated PCT Change for Plant Hatch
October 1988 through December 1996**

<u>Ref. No.</u>	<u>Description</u>	<u>PCT Change</u>	<u>Absolute Value of PCT Change</u>	<u>Comments</u>
1.	No. of Fuel Rods	N/A	N/A	1986 analysis done with GE-6, 7, and 8 fuel designs. GE-9 fuel (analyzed later) is less limiting than GE-8.
2.	Bottom Head Drain	<+10°F	10°F	
3.	Bottom Head Drain	N/A	N/A	Same issue as Ref. 2
4.	No Changes or Errors Reported	0	0	
5.	No Changes or Errors Reported	0	0	
6.	Thermal-hydraulic Modeling Errors	± 5°F	5°F	
7.	Sensitivity to Selected SAFER Inputs	± 50°F	50°F	May be slightly higher per Ref. 6.
8.	Two Different SAFER Code Versions	<± 50°F	50°F	
9.	SAFER Coding Errors	+20°F/-100°F	100°F	
10.	Power Uprate	+20°F	20°F	Plant-unique changes reviewed and approved by NRC.
TOTAL	(Ref. 1-9)	+135°F/-205°F	215°F	

References

1. R. J. Reda (GE) to R. C. Jones, Jr. (NRC), "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 28, 1996.
2. R. J. Reda (GE) to R. C. Jones, Jr. (NRC), "Reporting of Changes and Errors in ECCS Evaluation Models," dated February 20, 1996.
3. R. J. Reda (GE) to R. C. Jones, Jr. (NRC), "Reporting of Changes and Errors in ECCS Evaluation Models," dated December 15, 1995.
4. J. F. Klapproth (GE) to R. C. Jones, Jr. (NRC), "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 24, 1995.
5. R. C. Mitchell (GE) to NRC, "Reporting of Changes and Errors in ECCS Evaluation Models," dated July 1, 1994.
6. R. C. Mitchell (GE) to NRC, "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 30, 1993.
7. S. J. Stark (GE) to NRC, "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 26, 1992.
8. P. W. Mariott (GE) to NRC, "Reporting of Changes and Errors in ECCS Evaluation Models," dated March 12, 1991.
9. R. C. Mitchell (GE) to NRC, "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 13, 1990.
10. J. T. Beckham, Jr. (GPC) to NRC, "Power Uprate Operation," dated January 13, 1995.