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 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director
 STOLZ, J.F. Operating Reactors Branch 4

SUBJECT: Forwards DPC-NE-1002, "Reload Design Methodology II," per Generic Ltr 84-20. Approval of rept requested by 851016 to facilitate Nov 1985 amend to reload Tech Specs & Mar 1986 restart of Unit 1. Fee paid.

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April 3, 1985

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. J. F. Stolz, Chief
Operating Reactors Branch No. 4

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

By a letter dated August 20, 1984, NRC transmitted Generic Letter 84-20 which provided scheduling guidance for Licensee submittals of Reloads. This letter advised that submittals of reload analysis based upon models and methods that have not yet been approved by the NRC Staff be made at least six months prior to the date that a license amendment is needed to authorize restart.

Pursuant to this Guidance, enclosed are six (6) copies of the report "Oconee Reload Design Methodology II", DPC-NE-1002, March 1985. Thirty-four (34) additional copies will be mailed to you as soon as they are available.

This report presents an alternate nuclear design code sequence to that currently approved in DPC-NFS-1001A. The major difference is that CASMO-2 replaces EPRI-CELL for generation of assembly average reactor physics properties and for generation of two neutron energy group cross sections. This report closely parallels NFS-1001A and presents the statistical development of reliability factors for radial and total power peaking based on benchmarking to Oconee 1 Cycles 7 and 8. The statistical combination of uncertainties using the square root of the sum of the squares technique has been utilized to obtain additional design and operating margin.

In addition to the changes noted above, minor changes have been made to the thermal hydraulic section to include the use of the BWC heat flux correlation and to the mechanical fuel analysis section to document minor methodology changes since NFS-1001A.

By a letter dated February 17, 1983, the NRC approved the use of CASMO-2 in the reload design analysis for Northern States Power Prairie Island units. The report that was reviewed and approved by the Staff was entitled "Qualification of Reactor Physics Methods for Application to PI Units", NSPNAD-8101NP. Duke's use of CASMO-2 is similar to the way

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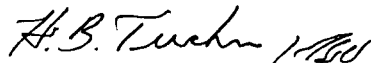
Mr. Harold R. Denton, Director
April 3, 1985
Page Two

Northern States Power has utilized CASMO-2 in their reload design analysis.

The first use of this methodology will be for Oconee 1 Cycle 10 (O1C10). Duke currently projects that O1C10 Reload Technical Specification Amendment will be submitted to the NRC by November, 1985; with an anticipated restart of Oconee 1 by March, 1986. In support of this effort, Duke requests approval of this report by October 16, 1985.

In accordance with 10 CFR 170.12, please find attached a check in the amount of \$150.00 to cover the specified application fee.

Very truly yours,



Hal B. Tucker

PFG:slb

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Ms. Helen Nicolaras
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