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ACCESSION NBR:8001150404 DOC.DATE: 80/01/08 NOTARIZED: YES
 FACIL:50-269 Oconee Nuclear Station, Unit 1, Duke Power Co.
 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.

DOCKET #
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 PARKER,W.O. Duke Power Co.
 RECIP.NAME RECIPIENT AFFILIATION
 DENTON,H.R. Office of Nuclear Reactor Regulation
 REID,R.W. Operating Reactors Branch 4 (Pre 791030)

SUBJECT: Responds to NRC 791109 ltr re fuel clad swelling model
 utilized in ECCS analysis.B&W fuel clad swelling model is
 conservative compared to NRC proposed model.No addl ECCS
 calculations are necessary.

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 TITLE: Resp to Lesson Learn Task Force - B&W and 50-409

NOTES: ~~M. CUNNINGHAM - ALL AMEND-
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DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

January 8, 1980

TELEPHONE: AREA 704
373-4083

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

Attention: Mr. R. W. Reid, Chief
Operating Reactors Branch No. 4

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

Dear Sir:

The following information is submitted in response to the November 9, 1979 letter from Darrell G. Eisenhut, NRC/ONRR, concerning the matter of the fuel clad swelling model utilized in the ECCS analysis of Oconee units.

The currently applicable ECCS analyses of Oconee Units 1, 2 and 3 are covered by Babcock and Wilcox Company's (B&W) generic ECCS analyses of 177-Fuel Assembly Lowered Loop Plants (documented in BAW-10103). The evaluation model utilized in these analyses is documented in the B&W Topical Report BAW-10104 and is interpreted to embody all the features required by 10CFR 50, Appendix K. The degree of agreement between B&W's current fuel clad swelling--flow blockage model and the NRC Staff's proposed model was discussed by B&W in a meeting with the NRC Staff on November 1, 1979, and subsequently in B&W letters dated November 2, 9, and 20, 1979, from J. H. Taylor to Darrell G. Eisenhut. The information pertaining to the lowered loop 177-FA plants presented in these discussions is applicable to the Oconee units.

Briefly, the evaluations performed to date by B&W for the 177-FA lowered loop plants indicate that, in general, B&W's current fuel clad swelling--flow blockage model is conservative compared to the Staff's proposed model, that over a limited region where the B&W model appears to be less conservative than the Staff's proposed model the application of the proposed model in a manner consistent with the B&W method would have no significantly adverse impact on the presently calculated LOCA results, and that the 2200°F criterion of 10CFR 50.46 is met.

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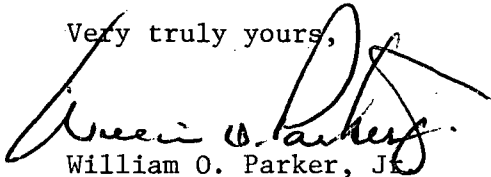
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The November 9, 1979 Eisenhut letter indicated the need to perform additional evaluations if regions exist where either the current clad swelling model or the flow blockage model is less conservative than the Staff's proposed model. We believe that before performing such additional calculations, it needs to be finalized that the proposed model is the model to be used to calculate the clad swelling-rupture-flow blockage behavior for ECCS analyses. We understand that the Staff's proposed model is undergoing technical review. B&W's comments on the proposed model were submitted by letter of December 10, 1979, from J. H. Taylor to R. P. Denise. When the final required model is issued by the NRC following the technical review and resolution of comments, the need for changes in the current evaluation model would have to be considered.

Therefore, on the basis of the foregoing considerations, it is felt that no additional ECCS calculations are necessary for Oconee units at this time and that the need for any additional ECCS reanalyses be reconsidered following the NRC issuance of the final required model for fuel clad swelling and flow blockage behavior.

Very truly yours,

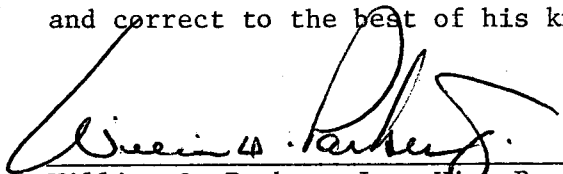
A handwritten signature in dark ink, appearing to read "William O. Parker, Jr.", with a stylized flourish extending from the end of the signature.

William O. Parker, Jr.

PMA:scs

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January 8, 1980
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WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this statement concerning Oconee Nuclear Station Facility Operating Licenses DPR-38, DPR-47, and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.



William O. Parker, Jr., Vice President

Subscribed and sworn to before me this 8th day of January, 1980



Notary Public

My Commission Expires:

September 20, 1984