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TO: Mr Rusch

FROM: Duke Power Company  
Charlotte, NC  
W O Parker Jr

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DESCRIPTION

Ltr notarized 3-16-76....furnishing info concerning maximum power restrictions limits during first fuel cycle operation.....

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**ACKNOWLEDGED**

PLANT NAME: Oconee #3

ENCLOSURE

SAFETY FOR ACTION/INFORMATION ENVIRO 4-26-76 ehf

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CONTROL NUMBER

4055

# DUKE POWER COMPANY

POWER BUILDING

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

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

April 16, 1976

TELEPHONE: AREA 704  
373-4083

Mr. Benard C. Rusche  
Director of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

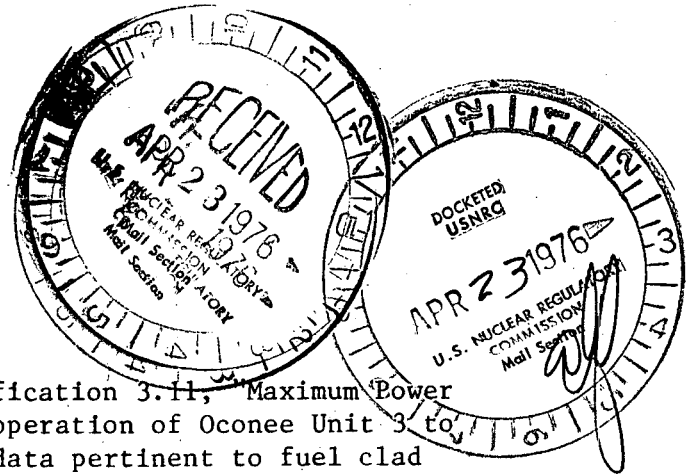
Re: Oconee Unit 3  
Docket No. 50-287

Dear Mr. Rusche:

The Oconee Nuclear Station Technical Specification 3.11, "Maximum Power Restriction," limits the first fuel cycle operation of Oconee Unit 3 to 10,944 EFPH until supporting analyses and data pertinent to fuel clad creep collapse under fuel densification conditions could be obtained to justify full three cycle operation. This analysis has now been completed, and it has been determined that creep collapse will not occur during the projected three cycles of operation.

The fuel clad creep collapse analyses were performed for three-cycle assembly power histories. The predicted assembly power history was used to determine the collapse time as described in the Babcock and Wilcox Company report BAW-10084P-A, January 1975, "Program to Determine In-Reactor Performance of B&W Fuel-Cladding Creep Collapse". A summary of the conservatisms employed in the analytical procedure is presented below:

1. The CROV computer code was used to predict the time to collapse. CROV conservatively predicts collapse times, as demonstrated in BAW-10084P-A.
2. No credit is taken for fission gas release. Therefore, the net differential pressures used in the analysis are conservatively high.
3. The cladding thickness used on the LTL (lower tolerance limit) of the as-built measurements. The initial ovality of the cladding used was the UTL (upper tolerance limit) of the as-built measurements. These values were taken from a statistical sampling of the cladding.

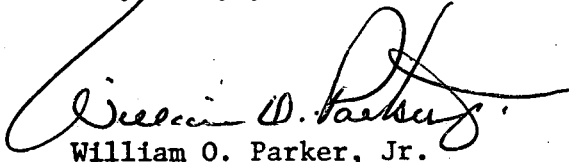


4. The cladding temperatures were calculated using assembly outlet temperatures. This results in cladding temperatures which are conservatively high when combined with the maximum design peaking factors.

The most limiting assembly was determined to have a collapse time of greater than 29,999 EFPH which exceeds the maximum projected three cycle core life of 24,746 EFPH.

It is currently planned to extend the Oconee 3, Cycle 1 fuel cycle from 456 EFPD to 486 EFPD. The current Technical Specifications and their bases have been reviewed and it is confirmed that the current specifications are valid for this extended cycle length. Pursuant to 10CFR50, §50.90, it is requested that the restriction limiting Oconee 3 to 10,944 EFPH contained in Specification 3.11 be deleted in order to facilitate this operation.

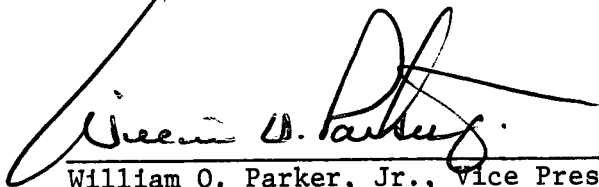
Very truly yours,



William O. Parker, Jr.

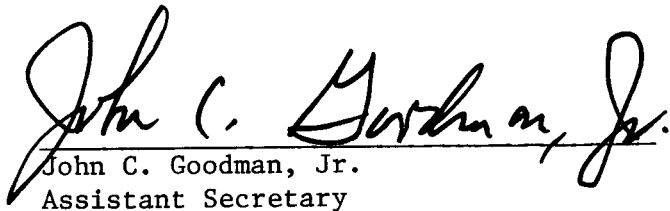
MST:mmb

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 request for amendment of the 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.



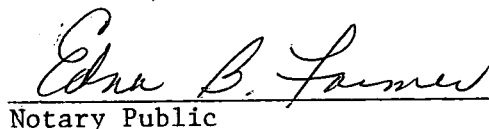
William O. Parker, Jr., Vice President

ATTEST:



John C. Goodman, Jr.  
Assistant Secretary

Subscribed and sworn to before me this 16th day of April 1976.



Notary Public

My Commission Expires:

