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Dockets Nos. 50-269/270/287

Duke Power Company

ATTN: Mr. William O. Parker, Jr.

Vice President - Steam Production

Post Office Box 2178

422 South Church Street

Charlotte, North Carolina 28242

Gentlemen:

On February 15, 1977, a meeting was held in which you and Babcock & Wilcox provided the status of the recent steam generator tube leak problems at the Oconee Nuclear Station. During and subsequent to the meeting, we identified certain information which we need to help us assess the Oconee Once-Through Steam Generator tube leak occurrences and potential safety problems.

It is requested that you provide the information requested within 30 days of receipt of this letter.

Sincerely,

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosure:

Request for Additional
Information

cc w/encl:

See next page

OFFICE >	DORORB#1	DOR:ORB#1				
SURNAME >	DNeighbors:lb	ASchwencer				
DATE >	3/31/77	4/1/77				



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 5, 1977

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Vice President - Steam Production
Post Office Box 2178
422 South Church Street
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Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer", is written over the typed name.

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosure:
Request for Additional
Information

cc w/encl:
See next page

Duke Power Company

- 2 -

April 5, 1977

cc: Mr. William L. Porter
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esquire
DeBevoise & Liberman
700 Shoreham Building
806-15th Street, NW.,
Washington, D.C. 20005

Oconee Public Library
201 South Spring Street
Walhalla, South Carolina 29691

REQUEST FOR ADDITIONAL INFORMATION RELATED TO
OCONEE STEAM GENERATORS

1. It was stated during the meeting on February 15, 1977, that defective and plugged tubes were stabilized down to the top support plate if the defect was found near the top tube sheet. Assess the consequence of possible failures of these defective tubes at lower or un-stabilized sections.
2. Provide a re-evaluation of past ECT records to show whether or not there were tube defects that might have led to initiation of tube cracking.
3. Due to failure in all the affected units at nearly the same point in time, indicate any change in operating procedures or other possible incidents that might have led to tube failures in Oconee steam generators.
4. Indicate any plan to perform ECT examinations of periphery tubes.
5. Provide analytical calculations and/or tests to justify that the crack length, in the circumferential directions, associated with the proposed leakage rate will not increase in an unstable fashion under normal operating and accident conditions.
6. During the recent meeting with the NRC staff, it was indicated that there is 0.4% sulphur content in the sediment deposits. Provide an assessment on the effect of the high sulphur content to the tubes in terms of possible chemical reactions.
7. Provide the micro-hardness test results of both virgin and cracked tubes to determine any evidence of plastic cyclic straining that may initiate the cracks.
8. Provide accident consequence analyses assuming:
 - a. A certain number of tube failures, that can be tolerated, concurrent with a LOCA.
 - b. The equivalent number of tubes failures that can be tolerated during a MSLB in terms of off site dosage.

9. Provide analytical and/or test data to assure tube integrity by demonstrating the capability of degraded tubes (circumferentially partial cracked tubes) to withstand accident induced loads. NRC's positions on this matter were delineated in Regulatory Guide 1.121 which was published for comment in August 1976.
10. Indicate B&W's on-going and planned future programs associated with tube failure, i.e., tests on mechanical strengths and fatigue strengths of degraded tubes.