January 25, 1994

Docket Nos. 50-269, 50-270
and 50-287

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, South Carolina 29679

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G.Lainas	

Dear Mr. Hampton:

SUBJECT: OCONEE SITE VISIT TO GATHER INFORMATION RELATING TO NRC FATIGUE ACTION PLAN

On February 8 and 9, 1994, Mr. Ronald Parkhill, NRC, and Mr. Jack Ware, Idaho National Engineering Laboratory, will visit the Oconee site to gather information relating to fatigue design of reactor coolant pressure boundary components. This information will assist the NRC staff in developing resolutions to issues relating to fatigue design as part of a Fatigue Action Plan. A brief description of this plan and the scope of the information desired is included in Enclosure 1. Access into the protected area should not be necessary. This visit has been discussed with Mr. Mark Patrick of your staff, and additional details of the information desired has been provided to him.

If you have questions regarding this matter, contact me at (301) 504-1495.

Sincerely,

Original signed by:

L. A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

OFFICE	PDII-3/LA	PDII-3/PM	PDII-3/D		
NAME	L. BERRY	L. WIENS	L. PLISCO		
DATE	1/25/94	1/25/94	1/25/94		

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FILE NAME: G:\OCONEE\FAPVISIT

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Mr. J. W. Hampton
Duke Power Company

Oconee Nuclear Station

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OCONEE FATIGUE ACTION PLAN VISIT

The NRC Fatigue Action Plan was initiated on July 30, 1993. A meeting was held with NUMARC on September 30, 1993, which discussed the action plan, and a copy was provided to the PDR as an attachment to the associated meeting minutes dated September 30, 1993.

The Fatigue Action Plan requires the staff to address the following three issues:

1. Many older vintage nuclear plants did not explicitly address fatigue design as now required by the ASME Code for reactor coolant pressure boundary components. A concern was identified with regard to the fatigue design adequacy of these components for operating reactors.

2. Also, a concern was identified regarding the adequacy of the ASME Section III fatigue design curves to bound the reactor coolant environmental effects like temperature, water, water chemistry, etc. This concern was raised as a result of recent test data.

3. Development of a staff position for the case when the calculated fatigue allowable limits have been exceeded (i.e., when the cumulative usage factor (CUF) exceeds unity).

To assist in developing a proposed resolution to the first two issues, the staff plans to gather information regarding the fatigue design of the reactor coolant pressure boundary components from a total of seven nuclear facilities. Four of these plants will have been explicitly designed to address fatigue for their reactor coolant boundary components (i.e., designed to ASME Section III-Class 1 or designed to ANSI B31.7). The remaining three plants will have been designed to ANSI B31.1 for their reactor coolant boundary components. This results in two plants for each NSSS vendor of General Electric, Westinghouse, and Combustion Engineering, but, only one plant for B&W since its reactors were all designed to ANSI B31.7. At each facility, the staff will request to review the design details of approximately six reactor coolant pressure boundary piping components. Two locations will be from nozzles on the reactor vessel and the remaining four will be from pressure boundary piping components. One copy of each of the associated analyses would be expected to be provided. The selected plant would also be expected to provide the services of an individual familiar with the associated analyses to assist the staff in their on-site review.

Two staff representatives plan to spend approximately two days at each facility gathering/reviewing information. To meet the current schedule, these plant visits are planned to occur in February/March 1994. Once the plant-specific information is gathered, the staff plans to use it to reanalyze each selected fatigue location. After the staff has completed the reanalyses, these results will be used to generically respond to the Fatigue Action Plan.