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January 15, 1986

Director of Nuclear Reactor Regulation  
Attention: Mr. D. Muller, Project Director  
BWR Project Directorate No. 2  
Division of Boiling Water Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
PLANT HATCH TURBINE INSPECTIONS

Gentlemen:

Recent turbine inspections at Plant Hatch have revealed information which may be of interest to the NRC. The information presented herein is preliminary and an evaluation of the inspection results is underway. This letter provides the status of inspection results and conclusions to date.

Unit I:

Low pressure (LP) turbines "A" and "B" are being inspected during the current refueling outage which started on November 27, 1985. Cracks have been found in the dovetail area between pin holes which are used for attaching the buckets to the wheel. Other cracks have been found in the keyway area of the rotor. The following table summarizes findings to date:

"A" LP ROTOR

<u>Stage</u>	<u>Condition</u>
L-0, both ends	Cracking in dovetail area
L-1, both ends	Shroud lifting
L-2, both ends	Keyway cracking
L-3, generator end	Keyway cracking
L-4, generator end	Keyway cracking

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"B" LP ROTOR

<u>Stage</u>	<u>Condition</u>
L-0, both ends	Cracking in dovetail area
L-2, both ends	Keyway cracking
L-3, both ends	Keyway cracking
L-4, both ends	Keyway cracking

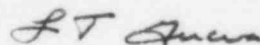
Cause of the cracking is under investigation. Water induction is not believed to be a cause. Material or fabrication problems are being considered. Resonant torsional oscillation of the turbine rotor induced by adverse generator load characteristics is also considered a possible cause.

Unit 2:

The unit was shutdown on December 25, 1985 for a maintenance outage to repair steam leaks and to inspect the LP turbine last stage wheels for problems similar to those found on Unit 1. No significant problems were noted, and the unit was returned to service on December 29.

Please contact this office if you have any questions or comments.

Very truly yours,



L.T. Gucwa

PLSpringer/lc

c: Mr. J. T. Beckham, Jr.  
Mr. H. C. Nix, Jr.  
Dr. J. N. Grace (NRC-Region II)  
Senior Resident Inspector  
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