

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20565

DOCKET NO.: 50-287

DATE: May 6, 1976

LICENSEE: Duke Power Company (DPC)

FACILITY: Oconee Unit 3

SUMMARY OF MEETING HELD ON APRIL 14, 1976, TO DISCUSS THE RESULTS OF AN INSPECTION OF THE REACTOR SURVEILLANCE CAPSULE HOLDER TUBES AT OCONEE UNIT 3 AND THE PROPOSED PLANS FOR OPERATION FOR THE REMAINDER OF CYCLE 1

On April 14, 1976, representatives of Babcock & Wilcox (B&W) and DPC met with the NRC staff to evaluate the extent of damage to the reactor vessel surveillance capsule holder tubes and to determine whether the holder tubes can remain in the Unit 3 reactor vessel for the remainder of Cycle 1 operation.

A list of attendees is enclosed.

Significant discussions/agreements are summarized below.

B&W provided a detailed account of the holder ube inspection. The locations of internal wear damage were shown and the probable cause identified as flow-induced relative motion between the holder tubes and push rod assemblies within the tubes. On two of the three holder tubes a complete severance of the holder tubes had occurred at the axial location of the second push rod spacer from the top. In addition, external visual inspections and ultrasonic testing revealed evidence of wear at the journal bearing area located at the bottom of the outer shroud tube. The journal bearing wear had caused the bearing clearance to increase. To restore proper journal bearing support, the licensee rolled out each holder tube in the journal bearing area. Some spring-back was observed, but not to a significant degree.

The actual stress loadings on the holder tubes (measured during Hot Functional Testing) were shown to be below allowance limits. In addition, the results of a fatigue evaluation were shown which took into consideration the material condition of the holder tubes.

The staff agreed that the results of the fatigue evaluation showed that, with the loads normally expected, sufficient material integrity remained in the holder tubes to give reasonable assurance that any further degradation would not occur. Of concern, however, was positive identification of the actual wear meahanism. The wear observed at the journal bearing locations indicates that the relative motion between the holder tubes and

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push rod assemblies may not be the only source of wear. Considering this, further review would be necessary before a decision could be made to allow the holder tubes to remain in the core for the remainder of Cycle 1 operation.

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Dary D. Jeck

Gary G. Zech, Project Manager Operating Reactors Branch #1 Division of Operating Reactors

Enclosure: List of Attendees

cc: See next page

NRC STAFF MEETING WITH

DUKE POWER COMPANY AND

BABCOCK & WILCOX

April 14, 1976

NRC

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1.	s.	Noonan
Ν.	J.	Ross
Ρ.	Ν.	Randel1
J.	Strosnider	
G.	G.	Zech

DPC

M. S. Tuckman D. C. Holt

B&W

W. J. Keyworth L. Bohn L. A. Creasey C. Pryor

Meeting Summary for Duke Power

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cc: Licensee NRC PDR Local PDR B. Rusche E. Case R. Boyd R. Heineman V. Stello H. Denton D. Skovholt R. Denise R. DeYoung R. Maccary D. Ross R. Tedesco K. Goller D. Eisenhut V. Moore R. Vollmer M. Ernst W. Gammill P. Collins C. Heltemes R. Houston T. Speis R. Clark J. Stolz K. Kniel O. Parr W. Butler D. Vassallo J. Knight S. Pawlicki I. Sihweil P. Check T. Novak Z. Rosztoczy V. Benaroya G. Lainas T. Ippolito D. Ziemann G. Lear R. Reid L. Shao R. Baer

A. Schwencer

B. Grimes G. Knighton B. Youngblood W. Regan D. Bunch J. Collins W. Kreger R. Ballard M. Spangler J. Stepp L. Hulman T. Carter OR PM S. Sheppard R. Fraley, ACRS(16) OIGE(3) OELD Principal Staff Participants

bcc: T. B. Abernathy, TIC J. R. Buchanan, NSIC