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**FEB 22 1994**

CDR-50-390  
CDR-50-391

10 CFR 50.55(e)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of )  
Tennessee Valley Authority )

Docket Nos. 50-390  
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - CONSTRUCTION DEFICIENCY REPORTS  
CDR-50-390/86-64 AND CDR-50-391/87-23 - FAILED MOTOR PINION KEY AND MOTOR  
SHAFT IN LIMITORQUE OPERATORS - SUPPLEMENTAL REPORT

The purpose of this letter is to clarify corrective actions identified in TVA's final report. The subject deficiency was initially reported to NRC Region II on October 6, 1986, in accordance with 10 CFR 50.55(e) as Nonconforming Condition Report W-477-P for Unit 1. Interim reports were submitted on November 12, 1986, March 16 and November 2, 1987, September 23, 1988, and January 31, 1991. The final report was submitted on April 8, 1993.

During closure of the subject corrective actions, it became apparent that clarifications were necessary. The enclosure contains the corrective action clarifications. No new commitments are made in this letter.

If you have any questions, please telephone P. L. Pace at (615) 365-1824.

Very truly yours,

William J. Museler

Enclosure  
cc: See page 2

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cc (Enclosure):

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ENCLOSURE

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2  
FAILED MOTOR PINION KEY AND MOTOR SHAFT IN LIMITORQUE OPERATORS  
CDR-50-390/86-64 AND CDR-50-391/87-23  
SUPPLEMENTAL REPORT

During the closure of corrective actions identified in TVA's April 8, 1993, final report on the subject deficiency, it became apparent that clarifications were necessary. The following corrective actions are being clarified:

1. Design Change Notice (DCN) W-01667-C has been issued to slow down the following Unit 1 valve actuators: 1-FCV-63-1, -67, -72, -73, -80, -93, -94, -98, -118, 1-FCV-74-3, and -21. Additionally, any components which exceed the Limitorque acceptance criteria will be replaced.

Unit 2 valve actuators for valves 2-FCV-63-1, -67, -72, -73, -80, -93, -94, -98, -118, 1-FCV-74-3 and -21 shall be slowed and have any components which exceed the Limitorque acceptance criteria replaced. (Unit 2 Hold)

2. DCN W-12553-A has been issued to change the motor shaft material for the following Unit 1 valve actuators: 1-FCV-3-33, -47, -87, and -100. Additionally, any components which exceed the Limitorque acceptance criteria will be replaced.

Unit 2 valve actuators for valves 2-FCV-3-33, -47, -87, and -100 shall have their motor shaft material replaced and have any other components which exceed the Limitorque acceptance criteria replaced. (Unit 2 Hold)

Clarifications

In Corrective Actions 1 and 2 for each Unit, TVA states that components which exceed the Limitorque acceptance criteria will be replaced. This statement requires clarification. Vendor manual WBN-VTM-L200-0010 had previously been revised to require rapid impact load testing for Limitorque actuators after performance of various maintenance activities, including motor replacement. This manual includes guidance for determining when motor loading is occurring at a rate which could potentially lead to power train damage, inspection acceptance criteria, and trending requirements. The need for component replacement will be determined through this program.

In Corrective Action 2 for each Unit, statements are made that indicate the shaft material for the subject valves requires changing/replacement. Actually, DCN W-12553-A was issued to revise the Unit 1 valve drawings to require that future motor replacements specify AISI 4140 steel motor shaft material. Existing motor shafts for the subject Unit 1 and 2 valves are made of AISI 4140 steel. No hardware changes/replacements are presently required. However, a Unit 2 DCN still needs to be issued to revise the associated valve drawings to require that future motor replacements specify AISI 4140 steel motor shaft material.