

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37402

400 Chestnut Street Tower II

June 17, 1981

SQRD-50-328/81-40
WBRD-50-390/81-53
WBRD-50-391/81-51

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

SEQUOYAH NUCLEAR PLANT UNIT 2 AND WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 -
CLASS IE ELECTRICAL COMPONENTS FOR ERCW TRAVELING SCREENS -
SQRD-50-328/81-40, WBRD-50-390/81-53, WBRD-50-391/81-51 - FIRST INTERIM
REPCRT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on May 18, 1981, in accordance with 10 CFR 50.55(e) as
NCR's SQN NEB 8126 and WBN NEB 8112. Enclosed is our first interim
report. We expect to submit our next report by July 31, 1981.

If you have any questions, please get in touch with D. L. Lambert at
FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure);
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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POOR ORIGINAL

ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNIT 2
AND WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
CLASS IE ELECTRICAL COMPONENTS FOR ERCW TRAVELING SCREENS
SQRD-50-328/81-40, WBRD-50-390/81-53, WBRD-50-391/81-51
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

Electrical components required for the operation of the ERCW traveling screens are not Class IE. FSAR section 9.2.2 describes the screen functions as required for ERCW operation, thus requiring electrical components to be Class IE. This deficiency occurred due to employees failing to recognize the requirements for this equipment during preparation of procurement documents.

Corrective Action

TVA is continuing to investigate to determine appropriate corrective actions to ensure that procurement documents correspond with FSAR requirements.

TVA has evaluated the electrical components for the ERCW traveling screens and determined that the following components are not Class IE.

- (1) Differential level diaphragm
- (2) Low speed detector switch
- (3) Traveling screen drive motors

As an interim measure for Sequoyah, TVA is taking the following steps:

For the differential level diaphragm, TVA has performed a failure evaluation and determined that the failure mode of this component would result in the start of the screens and screen wash. Therefore, unintentional operation of the screens will do nothing to degrade the ERCW flow.

The failure evaluation for the low speed detectors indicates that the failure of the screen motors low speed detector could defeat screen operation. This could occur if there was a short across the switch which could blow the fuses protecting the drive motors. In order to prevent this type of failure, TVA has removed the low speed detector from its circuit. With this switch removed, there would be no main control room (MCR) annunciation of low screen motor speed. It has been determined that the switch has no input to any control or logic functions and is not required for mitigation of design basis events; therefore this lack of annunciation would not endanger the safe operation of the plant.

If the level diaphragm failed while the speed detector was out of service, there would be no reliable MCR indication of the traveling screen status. When operators are instructed on the regular checking of the ERCW equipment, they will be alerted to this fact and instructed that if a high differential level alarm is received and does not clear after a period to allow screen washing the traveling screen equipment should be checked.

The failure evaluation for the traveling screen drive motor states that although the motors are not Class IE, the failure of these motors in the short term is not likely since they are seismically qualified, have been procured with limited quality assurance, and have been tested for the service environment. There are two motors associated with each train and, even after a final switchover to the ERCW station, a single motor failure would not cause the affected train to lose its capability to achieve safe shutdown. Therefore, the continued use of these motors until Class IE motors can be installed is acceptable.

As a permanent solution, TVA will replace the above electrical components with Class IE components. This equipment will be installed in accordance with the schedules provided in NUREG-0588.

The interim measures outlined above apply only to Sequoyah. The permanent corrective actions apply to Watts Bar as well as Sequoyah.