



830 Power Building  
TENNESSEE VALLEY AUTHORITY  
CHATTANOOGA, TENNESSEE 37401

JUL 9 1976

Mr. Norman C. Moseley, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 818  
230 Peachtree Street, NW.  
Atlanta, Georgia 30303

Dear Mr. Moseley:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - REPORTABLE DEFICIENCY -  
GENERAL ELECTRIC 6900-VOLT AUXILIARY POWER SWITCHBOARDS -  
BLACK LEXAN COIL SPOOLS

The subject deficiency was initially reported to NRC-OIE  
Region II Inspector V. L. Brownlee on June 11, 1976, in  
accordance with 10 CFR 50.55(e).

Enclosed is the first interim report concerning this  
deficiency. Our next report will be transmitted on or before  
September 9, 1976.

Very truly yours,

A handwritten signature in cursive script, appearing to read "JE Gilleland".

J. E. Gilleland  
Assistant Manager of Power

Enclosure

CC: Dr. Ernst Volgenau, Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

WATTS BAR NUCLEAR PLANT  
REPORTABLE DEFICIENCY  
GENERAL ELECTRIC 6900-VOLT  
AUXILIARY POWER SWITCHBOARDS  
LEXAN COIL SPOOLS  
FIRST INTERIM REPORT

Nonconformance Report (NCR) 383R was made by the Watts Bar Electrical Engineering Unit on May 18, 1976, to document the discovery of four cracked and broken coil spools on 12HFA51A42F relays contained in the 6900-volt shutdown boards 2A-A and 2B-B. Further investigation revealed four additional defective coil spools and Nonconformance Report 383R, Revision 1 was subsequently made on June 1, 1976, to document a total of eight cracked and broken coil spools. NCR 383R, Revision 1 also documents that this deficiency was found to exist on 12HFA54E187F relays and shutdown board 1A-A in addition to those previously reported. It was noted in this NCR that all the defective coil spools discovered to date were made of black Lexan.

A letter was received from the General Electric Company which indicated that other GE customers have received supply coils with cracked black Lexan spools. A check of HFA coils in-house at GE found several other black Lexan spools with stress cracks. No stress cracks were found on clear Lexan spools. The problem was traced to an improper mixture of black Lexan by the vendor.

A life expectancy test was made on the cracked Lexan spools by GE and they concluded that the cracks should have negligible effect on coil life. An exception would be where a spool is so badly cracked that wire support is lost and the winding could fall down the core.

General Electric Company has recommended that the following check be performed during inspection of the HFA relays:

On continuously energized AC relays and on other HFA relays with black spools, apply a tensile force test of ten (10) pounds to the coil spool flange 1/8" from the edge of the flange. In the event that the spool cracks, fractures, or shatters, the relay should be replaced or alternatively the coil may be replaced.

General Electric Company was subsequently notified by TVA that this deficiency has been reported to the Nuclear Regulatory Commission, Office of Inspection and Enforcement. A request was made to GE to submit a report addressing probable causes and suggested corrective action.

When the requested information is received from GE and reviewed by The Division of Engineering Design, Watts Bar Nuclear Plant will be advised of the action to be taken in resolving their nonconformance report.