



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 6, 1995

APPLICANT: Tennessee Valley Authority (TVA)  
FACILITY: Watts Bar Nuclear Plant (WBN) Unit 1  
SUBJECT: SUMMARY - JUNE 29, 1995, MEETING WITH TVA REGARDING ELECTRICAL SEPARATION REQUIREMENTS AT WBN UNIT 1 (TAC NO. M89109)  
REFERENCE: Meeting notice by P. S. Tam, June 27, 1995

On June 29, 1995, NRC and TVA representatives met at the Nuclear Regulatory Commission office (One White Flint North) to discuss various issues regarding electrical separation requirements at Watts Bar Nuclear Plant Unit 1. The list of participants is shown in Enclosure 1.

The meeting focused on technical issues addressed by TVA's letter dated June 5, 1995. TVA provided a handout entitled, "Watts Bar NP Separations Issue" (Enclosure 2). Also, TVA provided an overview of Watts Bar's testing program for 6.9KV circuit breakers, 480V switchgear breakers, and 480V MCC breakers (Enclosure 3). The staff and TVA discussed the handouts.

TVA will respond within two weeks, in writing, to issues regarding Doble and hi-pot versus the megger test for breakers, timing test for breakers, trip points test of breaker, frequency of breaker test, and test population of breakers. The submittal will also include draft change pages to the FSAR to reflect agreements made in the meeting.

A handwritten signature in cursive script that reads "Michael Bugg".

Michael Bugg, Project Engineer  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures: 1. List of Participants  
2. WB NP Separations Issue  
3. Testing

cc w/enclosures: See next page

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NAME	BCHebdon		MBugg		PTam	<i>PT</i>	JCalvo	<i>MC</i>	FHebdon	<i>Hebdon</i>
DATE	6/30/95		6/30/95		6/30/95		7/4/95		7/6/95	

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LIST OF PARTICIPANTS  
MEETING ON ELECTRICAL SEPARATION REQUIREMENTS  
NUCLEAR REGULATORY COMMISSION - ONE WHITE FLINT NORTH  
June 29, 1995

<u>Name</u>	<u>Affiliation</u>
Walt Elliott	TVA Watts Bar
Ken Greene	TVA Corporate Engineering
Nick Glasser	TVA Watts Bar
Roger W. Huston	TVA Rockville
Mark O. Medford	TVA Watts Bar
Bruce S. Schofield	TVA Watts Bar
Steve Alexander	NRC/NRR/Special Inspection Branch
Virgil Beaston	NRC/NRR/Electrical Engineering Branch
Fred Burrows	NRC/NRR/Electrical Engineering Branch
Michael Bugg	NRC/NRR/Project Directorate II-3
Robert J. Giardina	NRC/NRR/Technical Specifications Branch
Julio Lara	NRC/Region II/Watts Bar Resident Inspector
Jim Lazevnick	NRC/NRR/Electrical Engineering Branch
Peter Tam	NRC/NRR/Project Directorate II-3

ENCLOSURE 1

# **WATTS BAR NP SEPARATIONS ISSUE**

- **1" MINIMUM SEPARATION OPEN TRAY TO CONDUIT**
- **NRC QUESTIONS WHETHER TESTS ARE BOUNDING**
- **NRC PROPOSES TESTING IE BREAKERS W/IE LOADS**

# **RESOLUTION**

- **PRESENTLY TESTING ASSOCIATED CIRCUITS &  
PENETRATION PROTECTION FOR:  
Medium Voltage Switchgear  
Low Voltage Switchgear  
approximately 1950 MCCBs (Molded Case Circuit Breakers)**
- **THERE ARE APPROXIMATELY 400~~1~~E MCCBS W/1E LOADS**
- **TVA MAY RE-EVALUATE SELECTED CIRCUITS FOR  
ADEQUATE SEPARATION/BARRIERS**
- **THOSE WITHOUT VERIFIED SEPARATION OR BARRIERS WILL  
BE ADDED TO THE TEST PROGRAM**

# TESTING

## 6.9KV CIRCUIT BREAKERS

Protective devices are tested periodically by performance of a preventive maintenance instruction

Relay Calibration      36/48 month

Functional Test      18 month      performed by manually actuating the protective device and verifying the associated breaker or lockout device is tripped.

## 480V SWITCHGEAR BREAKERS

Test is performed every two years or at the trip count interval for that type breaker.

Amptector Trip Unit Test      Test of Instantaneous, Short Time, and long Time Delay of the amptector unit.

Functional Test      Performs a functional test of the breaker by primary current injection at the long time setting only.

## 480V MCC BREAKERS

### NO CURRENT PERIODICALLY SCHEDULED TESTING

An existing Maintenance Instruction is available which performs circuit breaker inspections and tests.

This instruction could be used with modifications or a new instruction would be required to be written.

Current plan would be to test the individual trip elements for the additional breakers.

WATTS BAR NUCLEAR PLANT

cc:

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