



Tennessee Valley Authority, Post Office Box 2000, Spring City, TN 37381-2000

May 18, 2009

10 CFR 50.54f

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop: OWFN P1-35  
Washington, D.C. 20555-0001

In the Matter of )  
Tennessee Valley Authority )

Docket No. 50-391

**WATTS BAR NUCLEAR PLANT (WBN) - UNIT 2 - ADDITIONAL INFORMATION  
REGARDING WBN UNIT 2 CORRECTIVE ACTION PROGRAMS (TAC NO.  
MD9182)**

The purpose of this letter is to provide additional information regarding the WBN Unit 2 Cable Issues Corrective Action Program (CAP). This CAP is discussed in Reference 1, section 1.13.1, under item (1) Cable Issues.

TVA had submitted a proposed approach to resolution of sub-issues of the Cable Issues CAP at WBN Unit 2 that was different from the approach used for WBN Unit 1 to the NRC on May 29, 2008 (Reference 2). TVA then submitted a proposed approach to resolve sub-issues of the Cable Issues CAP at Unit 2 using the WBN Unit 1 approach on September 26, 2008 (Reference 3). In Reference 4, the NRC requested additional information. TVA responded to the NRC's request for additional information on January 14, 2009 (Reference 5). Subsequently, a teleconference was held on February 10, 2009, and a public meeting was held on March 17, 2009 (Reference 6). At the public meeting, TVA presented information intended to answer the questions from the teleconference. In Reference 7, TVA provided written responses to the questions from the teleconference as well as written responses to additional questions from the March 17 public meeting.

For current Class 1E cable purchases, the allowable sidewall pressure is specified in the Certificate of Compliance furnished by the vendor. Enclosure 1 provides an example cable manufacturer's certificate of compliance and an additional certificate from the vendor on recommended maximum sidewall pressure for the cable.

DOB  
NRB

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As part of the jamming sub-issue, TVA reviewed cable pull slips for the Unit 2 Class 1E cables to determine if a power-assisted pull was documented. Out of a total population of 4,097 Unit 2-only Class 1E cables, 215 did not have a pull card, 186 were never installed, 19 were not marked on the pull cards, and 2 cables were pushed. Therefore, out of the 3,911 cables installed (4,097-186), 234 cables (215+19) have unknown pull information. Of the remaining population of 3,677 cables (3,911-234) which have cable pull records, none of the cables were identified to have undergone mechanical assisted pull.

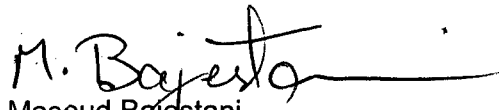
As indicated, there were 215 cables for which no pull card could be found and 19 pull slips that were not marked to show if a mechanical assisted pull was used. Two hundred and thirty (230) cables were either multiconductor cables or they were not in a three single conductor (3-1/C) configuration in conduit; therefore, these cables were not susceptible to jamming. The remaining 4 cables, which were either #10 or #12AWG; were installed in conduits with three single conductor cables. The jamming ratio was calculated for each of these. The calculated jamming ratios are 2.08 for 3-1/C #12 AWG and 4.4 for 3-1/C #10 AWG. These ratios are outside the critical jam ratio of 2.6-3.2; therefore, cable jamming is not a concern for these 4 cables.

The details of TVA's evaluation are available at the site for review. This completes the open action required for licensing (#3) from Reference 7, Enclosure 3.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 18<sup>th</sup> day of May, 2009.

If you have any questions, please contact me at (423) 365-2351.

Sincerely,

  
Masoud Bajestani  
Watts Bar Unit 2 Vice President

Enclosure  
cc (See page 4):

- References:
1. NRC Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Unit 2 NUREG-0847 Supplement 21, February 2009
  2. TVA letter dated May 29, 2008, "Watts Bar Nuclear Plant (WBN) – Unit 2 – Cable Issues Corrective Action Program for Completion of WBN Unit 2" (T02 080529 001)
  3. TVA letter dated September 26, 2008, "Watts Bar Nuclear Plant (WBN) – Unit 2 – Regulatory Framework for the Completion of Construction and Licensing Activities for Unit 2 - Corrective Action and Special Programs, and Unresolved Safety Issues" (T02 080926 001)
  4. NRC letter dated November 25, 2008, "Watts Bar Nuclear Plant - Unit 2 – Request for Additional Information Regarding Cable Issues Corrective Action Program (TAC NO. MD9182)" (A02 081203 001)
  5. TVA letter dated January 14, 2009, "Watts Bar Nuclear Plant (WBN) - Unit 2 – Response to Request for Additional Information Regarding Cable Issues Corrective Action Program (TAC NO. MD9182)" (T02 090114 001)
  6. 2009/03/17 - Slides and Handouts from TVA Public Meeting (ADAMS Accession No. ML090771062)
  7. TVA letter dated April 6, 2009, "Watts Bar Nuclear Plant (WBN) - Unit 2 – Additional Information Regarding WBN Unit 2 Corrective Action Programs (TAC NO. MD9182 and MD9424)" (T02 090406 001)

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Enclosure

cc (Enclosure):

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NRC Resident Inspector Unit 2  
Watts Bar Nuclear Plant  
1260 Nuclear Plant Road  
Spring City, Tennessee 37381

**Enclosure 1**  
**Example Certificate of Compliance**

**CERTIFIED TEST REPORT AND CERTIFICATE OF COMPLIANCE**

**THE OKONITE COMPANY**  
 2276 ROWESVILLE ROAD  
 ORANGEBURG SC 29115

Report No: 6326  
 DATE : 03/31/04  
 Reg No :42-5405  
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Customer: **TENNESSEE VALLEY AUTHORITY NUCLEAR**  
 Customer Order Number: 31857      Item No: 1      Code No: WNB-52 / OBR257A  
 Manufacturing Order No: 04-2939-1      Product Code No: 115-23-2928  
 Manufacturing Spec: TVAN E12.6.01 REV 4 7/21/03  
 Cable Description: 1/C 2/0 19X COPPER-SS-140 OKOGUARD EPR-024 SC EPR-005 TINNED  
 COPPER TAPE-080 OKOLON-SEQ.PRINT-8KV

**CERTIFICATE OF COMPLIANCE:** Issued in conjunction with and subject to OKONITE's standard Warranty and Limitation Liability.

THE OKONITE COMPANY hereby certifies to the customer named above that the above described materials were duly tested during manufacture and that the materials meet or exceed the applicable requirements.

Quantity Ordered	6,000	Quantity Accepted for Shipment	6,120	Number of Reels	2
Cable QC Length No.		Shipping Footage	Sequential Numbers		
474307A		3060	Top End 4006168	Test Hole End 4003100	
474307B		3080	4003068	4000000	

**CERTIFIED TEST REPORT**

The insulated conductor(s) withstood the following tests:  
 28 Kv Ac for 5 Min

The insulated cable conductor(s) has an **INSULATION RESISTANCE** of not less than that corresponding to a constant of 50000 at 15.6 C. The **DC RESISTANCE** of the conductor(s) at 28 C does not exceed ICEA values of 0.08260 Ohms per 1,000 ft.  
**Conductor Continuity PASSED**

**Shield Continuity PASSED**

**Corona Level per AEIC C98 PASSED**

This report covers material shipped from **ORANGEBURG, SC** to **TVAN /BROWNS FERRY**

We hereby certify this to be a true and accurate copy of results of tests conducted in accordance with orders and specifications listed.  
 Special Statements for this CTR/COC

**"CABLES SHIPPED ARE SAME IN DESIGN AND MATERIALS, AND MANUFACTURED UNDER SAME PROCESS AND QUALITY CONTROLS AS CABLE QUALIFIED BY OKONITE EQ REPORT NQRN 3 R4**

**"MAXIMUM SIDE WALL PRESSURE DURING INSTALLATION = 1000LBS."**

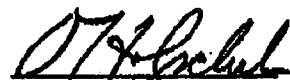
**"REELS ARE SUITABLE FOR EXPOSURE TO AN OUTDOOR ENVIRONMENT FOR AT LEAST TWO YEARS."**

**"CABLE SUPPLIED IN ACCORDANCE WITH OKONITE QS MANUAL REV.5 DTD 8/97."**

**"SOFT / ANNEALED COPPER WIRES PRODUCED FOR STRANDED CONDUCTORS HAVE ACHIEVED ELONGATION AND FINISH REQUIREMENTS OF ASTM B3 DURING MANUFACTURE."**

**"CABLE SHIPPED MEETS FLAME RESISTANCE REQUIREMENTS OF IEEE 383-1974"**

THE OKONITE COMPANY



**DON HOLZSCHUH**  
 ENGINEER / MANAGER OF TEST  
 Q-123-C-01 REV 11.2 02/20/02 S



THE OKONITE COMPANY  
Ramsey, New Jersey 07446

May 1, 2009

Maximum Sidewall Pressure

CERTIFICATION

for

TVA

OKOGUARD SHIELDED OKOLON

SPEC. NO. SSE 12.6.01 REV. 4 7-21-03  
TVA PO# 31957

OKONITE F.O.-04-2839-1  
Product Code: 115-23-2928

Okonite certifies that the recommended maximum sidewall pressure (tension out of the bend expressed in pounds divided by the inside radius of the bend) for the single conductor 2/0 AWG Okoguard shielded Okolon 8 kV cable provided for the aforementioned order is as follows:

Pulling two or more cables (parallel or plexed): 1000 pounds per foot of radius

J. V. Fitzgerald  
Vice President  
Application Engineering

ENGCERT/09011