

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

July 3, 1985

Director of Nuclear Reactor Regulation  
Attention: Ms. E. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of the Application of ) Docket Nos. 50-390  
Tennessee Valley Authority ) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - CONTROL OF SMALL DIAMETER BOLTING MATERIAL

Please refer to my letter to you dated June 20, 1985.

This letter is to provide you with updated information pertaining to the NRC inspection of WBN bolting during the week of April 29 through May 3, 1985. During the months of May and June 1985, WBN unit 2 participated in a program review by the Institute of Nuclear Power Operations (INPO). The review was completed on June 7, 1985 and a preliminary exit meeting was held at WBN on June 20, 1985.

During the INPO preliminary exit meeting, a finding in the performance area of material control included field issue of non-safety-related bolting material. Specifically, INPO identified cases where bolting material designated as "construction stock/non-QA/non-permanent" had been issued to shop areas. Further, a search for certificates of compliance (COC) documentation for four unmarked bolt samples found documentation for only two of the four samples. TVA's review determined the INPO finding to be related to WBN bolting concerns investigated by the NRC during the week of April 29 through May 3, 1985. Accordingly, on June 25, 1985, Henry Phillips (NRC) was informed by telecon of the INPO finding and TVA's review.

TVA has reviewed the bolting program aspect of the INPO findings on its own merit and relative to the previous NRC investigation. The following summary provides details of the TVA review, conclusions drawn by TVA, corrective action/program enhancements and a summary statement.

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Review Details

- TVA has ensured control of the WBN bolting program by requiring that all bolts be procured with COC and/or certified mill test report (CMTR) since 1981.
- Review during the past two months for COC/CMTR documentation of ten (one NRC, four INPO, five TVA) unmarked bolt procurements from 35 "construction stock/non-QA/non-permanent" designated procurements found the following:
  - Eight of ten COCs on file in the construction warehouse.
  - Two of ten (identified by INPO) did not have retrievable COCs on file in the construction warehouse. This bolting material was procured in 1973 and 1975.
  - TVA was able to obtain COCs from the suppliers for the two procurements not having COCs on file.
- Two nonconforming condition reports (NCRs) had been written to document and disposition the receipt and use of unmarked bolts at WBN.
  - 1979 - NCR WBN 1602
  - 1981 - NCR WBN 3372

Both NCRs used testing of random samples of unmarked bolts from the warehouse and from the field to determine acceptability. All samples tested for both NCRs exceeded minimum requirements of ASTM A 307. In addition, the unmarked bolts in the sample were found to have been procured with COCs, which were on file in the construction warehouse.

- No historical records (NCRs, NRC findings, audit findings, ASME reviews, etc.) could be identified that reflect WBN bolting failures or program breakdowns due to the use of unqualified bolting materials.

Conclusions

- Sufficient information was not made available to the INPO reviewer for determination of acceptability of the TVA-designated "construction stock/non-QA/non-permanent" bolting material. TVA's review substantiated that these bolts were procured on the same contracts used to supply permanent plant bolting, and certification records were maintained at the same location as all other bolting records.

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- The samples tested under the scope of NCRs WBN 1602 and WBN 3372 provided information necessary to allow WBN to determine that:
  - ASTM A 307 bolts received without manufacturer's identification marking but met the commitment of the COC.
  - Subgrade bolting material was not being introduced into the field by unknown, uncontrolled methods.
- The review performed on 10 of approximately 35 bolting procurements designated as "construction stock/non-QA/non-permanent" resulted in TVA being able to retrieve or produce COCs on all ten procurements. This success, determined on procurements as early as 1973, gave WBN even higher confidence that the requirement of obtaining COC/CMTR for all bolting procurements was applied programmatically. This determination further reinforced the conclusion that no subgrade bolting material was procured.

#### Corrective Action

None

#### Program Enhancements

- The designation of "construction stock/non-QA/non-permanent" will no longer be applied to any bolting material at WBN.
- All unmarked bolting material designated "construction stock/non-QA/non-permanent" will be redesignated as permanent plant, QA bolting material.
- Separate, enclosed, and segregated locations will be provided for ASME and ASTM bolting materials. Materials will be further segregated within these locations. These facilities will be monitored on a routine basis by qualified personnel.

#### Summary Statement

Based on the information presented in this submittal, TVA has determined that the bolting control program at WBN assures that quality bolting materials are procured and installed and comply with criterion VIII of Appendix B to 10 CFR 50.

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If you have any questions concerning this matter, please get in touch with K. P. Parr of my staff at FTS 858-2682 in Chattanooga.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



J. A. Domer, Chief  
Nuclear Licensing Branch

Sworn to and subscribed before me  
this 3rd day of July 1985



Notary Public

My Commission Expires 4/8/86

cc: U.S. Nuclear Regulatory Commission  
Region II  
Attn: Dr. J. Nelson Grace, Regional Administrator  
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