



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

Mark O. Medford
Vice President, Nuclear Assurance, Licensing and Fuels

MAY 09 1991

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NO. 390, 391/90-33
REPLY TO NOTICE OF VIOLATIONS 390/90-33-01 AND 391/90-33-01

TVA's response to the subject notice of violation is provided in
Enclosure 1. Enclosure 2 lists the commitments made in this submittal.

The Region II Staff was notified of the delay in submittal of this
response.

If there are any questions, please telephone P. L. Pace at (615) 365-1824.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Mark O. Medford

Mark O. Medford

Enclosures
cc: See page 2

9105140347 910509
PDR ADCK 05000390
Q PDR

11
TE01

U.S. Nuclear Regulatory Commission

MAY 09 1991

cc (Enclosures):

Ms. S. C. Black, Deputy Director
Project Directorate II-4
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
RESPONSE TO VIOLATION 390, 391/90-33-01
FAILURE TO CONTROL TEMPORARY
TAGGING OF PLANT HARDWARE

DESCRIPTION OF VIOLATION

Part 50 of Title 10 of the Code of Federal Regulations, Appendix B, Criterion XV, "Nonconforming Materials, Parts, or Components," is implemented in part by the Nuclear Quality Assurance Plan, paragraph 10.0, and states that measures shall be established to ensure that items that do not conform to requirements are controlled to prevent their inadvertent installation or use and these items shall be identified, evaluated, corrected, tracked, trended, and when required, reported to appropriate levels of management.

Contrary to the above requirements, on January 7, 1991, eight trouble tags were identified installed on safety-related equipment that identified hardware deficiencies. The licensee had not taken appropriate action, in that, the items were not included in a program that required evaluation, corrective actions, tracking, and reporting to appropriate levels of management.

ADMISSION OR DENIAL OF THE VIOLATION

TVA admits the violation occurred as stated.

REASON FOR THE VIOLATION

Measures in existing procedures were not explicit regarding responsibility for placement and tracking of hardware deficiency tags. In addition, some individuals in other site departments having oversight of hardware deficiency identification programs failed to recognize the relationship between placement of equipment trouble cards and entry in the maintenance organization's administrative control program for correction of hardware deficiencies. Further, the software program for tracking equipment trouble cards was not adequate.

A subsequent TVA walkthrough identified several additional instances in which individuals failed to comply with established requirements regarding removal of tags upon closure of maintenance requests (MRs). (Approximately 9,000-10,000 maintenance requests are worked annually at WBN.)

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

The eight identified equipment trouble cards have been dispositioned by placing them in an appropriate tracking program as follows:

<u>Card No.</u>	<u>Description on Tag</u>	<u>Disposition</u>
57936	Pump casing drip pan drain has no support	Generated MR A664642
61991	UNID tags missing on panel	Replaced ETC with tagging requests and initiated corrective action to install permanent tags
77451	Paint chipped, screw missing, etc.	Generated MR A664643
78033	Insulation not in barrel of lug	Generated MR A664644
78049	Damaged orange cable	Generated MR A664645
18622	Welds not painted	Established reference to workplan
18621	Welds not painted	Established reference to workplan
26289	Excessive dirt on TBBF 2A	Generated MR A664640

During a discovery and assessment walkthrough conducted by TVA prior to the NRC exit meeting, seven equipment tagging cards were identified as not being removed when the work control document was closed. Those cards have now been removed. One additional nonconformance tag was also identified during this investigation as not being removed when a nonconformance report was closed. That tag has now been removed. The numbers of these additional tags are as follows:

ETC 53265	ETC 53960
ETC 53264	ETC 53362
ETC 53262	ETC 54051
ETC 54036	NCR 5099

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED (continued)

A walkdown of accessible spaces has been initiated to address deficiencies on other temporary tags in the plant. An instruction has been prepared to govern the walkdown. The principal purpose of these efforts is to ensure tagging is properly tracked and obsolete tagging is removed. The instruction was issued as temporary Instruction Change 91-144 to Administrative Instruction 1.101, "Temporary Tagging of Plant Equipment." A training module was developed and implemented for walkdown participants. It was presented to the initial participants on March 4, 1991, and the walkdown began immediately thereafter. The training specifically addresses requirements contained in the walkdown instruction. In addition, the module addresses general tagging requirements with particular emphasis on hardware deficiency tagging. The tagging walkdown and additional action to address this violation are being administratively tracked by Significant Corrective Action Report WBP910079PSCA, Revision 1. The walkdown is scheduled to be complete prior to restart of construction activities.

The Operations manager had a requirement inserted in the Night Order Log dated January 24, 1991, that shift crews review Administrative Instruction 9.2.3, "Maintenance Request Performance," Section 6.2.2, paragraph K. That paragraph requires the Operations Section representative to verify removal of equipment trouble cards in conjunction with signing the All Work/Testing Complete portion of the maintenance request form. Subsequent to that notification, on-shift Operations personnel began placing a stamp on maintenance request forms. The stamp requires a signature for the specific purpose of dispositioning the tag. The tag disposition signature is required before operations signs the forms for completion. Instruction Change 91-167 to Administrative Instruction 9.2.3 was issued March 14, 1991, to proceduralize these changes.

Equipment trouble card numbers known to exist in the plant were entered on the Prime Trouble Card Tracking software program controlled by the maintenance department. The majority of added card numbers came from walkdown programs administered by Nuclear Engineering.

Tagging requirements have been communicated to site employees by a memorandum dated February 22, 1991, "Watts Bar Nuclear Plant - Temporary Tagging of Plant Hardware." The memorandum emphasized the relationship between equipment trouble cards and the maintenance organization's administrative control program for correction of hardware deficiencies. It specifically addressed the importance of timely generation of maintenance requests upon discovery of hardware problems. The memorandum also addressed removal of trouble cards and included an overview of requirements of other tagging programs.

Instruction Change 91-158 to Administrative Instruction 9.2.1, "Maintenance Request Initiation," was approved on March 12, 1991. This instruction change clarified requirements for maintenance request generation when hardware problems are identified. A memorandum to the engineering manager dated March 19, 1991, and to key site managers dated April 17, 1991, both titled "Watts Bar Nuclear Plant - Hardware Deficiency Identification," reviewed

specific requirements for entry of hardware deficiencies in the Maintenance Administrative Control Program. Information contained in these documents, as well as the February 22, 1991 memorandum, is being conveyed to employees as part of the periodic General Employee Training.

CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATION

Procedures which control walkdowns and have as a primary purpose identifying hardware deficiencies will be reviewed and revised, as appropriate, to ensure a correct interface with the appropriate (maintenance or construction) administrative control program for correcting hardware deficiencies. The review and any necessary revision will be completed prior to restart of construction activities.

Procedures that utilize in-plant temporary tagging will be reviewed and revised, as appropriate, to ensure requirements are established and adequately implemented to provide for proper control of the tags. The review and any necessary revision will be completed prior to restart of construction activities.

An improved maintenance work control software program with supporting procedures is being placed in service. This program/procedure package is similar to that currently in use at Browns Ferry and Sequoyah Nuclear Plants. It includes a uniquely numbered deficiency tag and tear-away work request card having the same number. This feature will provide a more tangible link from the tag to the portion of the work control process that will correct the problem. Additionally, the software will permit queries of the deficiency record by the work request number, equipment identifier, and once assigned, the work order number. Both the work request card and the software have data fields reserved for documenting work request tag placement and location.

The tagging walkdown together with implementation of improved procedures and records will provide the necessary assurance that hardware tagging is in accordance with the requirements of Administrative Instruction 1.101 before system operability is established.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

As stated above, the temporary tagging walkdown encompassing accessible plant spaces and the associated procedural and work control corrective actions will be completed prior to resumption of construction activities.

ENCLOSURE 2

LIST OF COMMITMENTS

TVA makes the following commitments in response to this violation.

1. The temporary tagging walkdown encompassing accessible plant spaces will be completed prior to restart of construction activities.
2. Procedures which control walkdowns and have as a primary purpose of identifying hardware deficiencies will be reviewed and revised, as appropriate, to ensure a correct interface with the appropriate (maintenance or construction) administrative control program for correcting hardware deficiencies. The review and any necessary revisions will be completed prior to restart of construction activities.
3. Procedures that utilize in-plant temporary tagging will be reviewed, and revised as appropriate, to ensure requirements are established and adequately implemented to provide for proper control of the tags. The review and any necessary revisions will be completed prior to restart of construction activities.
4. The improved maintenance work control software/procedure package will be placed in service by July 15, 1991, for use in identification, tracking, and correction of hardware deficiencies associated with plant maintenance programs.