



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

MAY 14 1992

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - UNITS 1 AND 2 - NRC INSPECTION REPORT  
NO. 390, 391/92-05 - REPLY TO NOTICE OF VIOLATION

This letter responds to Inspection Report 390, 391/92-05 dated April 17, 1992, which identified one Severity Level IV violation. Violation 390, 391/92-05-01 involves the identification of procedural deficiencies which result in the improper erection and attachment of scaffolds and rigging to process piping and other safety-related equipment.

The enclosure to this letter addresses the specific conditions described in the subject inspection report and the corrective actions taken by TVA to prevent recurrence.

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

Sincerely,

William J. Museler  
Site Vice President

Enclosure  
cc: See page 2

220003  
9205260255 920514  
PDR ADOCK 05000390  
PDR

U.S. Nuclear Regulatory Commission  
Page 2

MAY 14 1992

cc (Enclosure):

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  
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
RESPONSE TO NRC'S APRIL 17, 1992 LETTER TO TVA  
VIOLATION 390, 391/92-05-01

DESCRIPTION OF VIOLATION

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires in part that activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances.

Tennessee Valley Authority Nuclear Quality Assurance Plan, TVA-NQA-PLN89-A, Revision 2, Section 6.1, Procedures and Instructions, requires that procedures and instructions describe quality-related activities in adequate detail for the intended user.

Contrary to the above, Site Standard Practice (SSP)-6.06, "Operation of Overhead Handling Equipment," and the Nuclear Power Safety and Health Manual (NPSHM), Section NPSH-III-D-4.04, WBN Supplement, "Scaffolds, and Temporary Work Platforms," were inadequate in that excessive loads from scaffolds and rigging were not prohibited from being attached to hangers and process piping, thereby allowing a potential overstress condition for these permanent safety-related plant features to exist. As a result, 14 scaffolds were found to violate allowable limits specified in Engineering Calculation WCG-1-1311. Additionally, three chain hoists were attached to plant hangers 47A450-21-303, 47A450-21-307, and 47A450-21-347 and used for modification work which resulted in the hangers being subjected to indeterminate load conditions.

REASON FOR VIOLATION

Scaffold - SSP-6.06 and the NPSHM were not properly used to evaluate possible loadings to the permanent plant equipment. This was due to failure to properly follow the guidelines.

Personnel training did not adequately emphasize SSP-6.06, Appendix C, guidelines. Additionally, craft supervision failed to provide adequate oversight to prevent improper use of the procedures. As a result, various scaffolds were constructed on or attached to permanent plant equipment with loads that violated the SSP-6.06, Appendix C guidelines.

Rigging - Personnel involved did not adequately monitor/verify the applied loads to ensure compliance with allowable stress limits. As a result, indeterminate loads were applied to pipe hangers during rigging activities associated with the implementation of Work Order (WO) 08-1646099. Specific components included hangers 47A450-21-303, 47A450-21-307, and 47A450-21-347.

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

Scaffold - Modifications and Engineering personnel walked down 54 scaffolds specifically attached to permanent plant equipment and performed evaluations in accordance with SSP-6.06, Revision 1, Appendix C. Of these 54, 14 were found to exceed the allowable limits specified in Engineering Calculation WCG-1-1311. A 100 percent walkdown of other scaffolds listed as still erected in the scaffold log (646) was then performed. No additional examples were found in which scaffolding exceeded allowable limits. As an interim measure, any scaffold affixed to permanent plant equipment was tagged to reflect its unacceptability for use pending further evaluation and/or disposition.

Site Nuclear Engineering (NE) evaluated the loading of 14 scaffolds found to exceed SSP-6.06, Appendix C, guidelines. Permanent plant equipment features were found to be acceptable based on evaluation (Calculation WCG-A-1333) and/or inspection.

This item is documented in Problem Evaluation Report (PER) WBP920053 which was initiated February 25, 1992.

Rigging - The three affected supports for System 67 were inspected under WO 08-1646099 and were not found to have sustained any damage because of rigging.

Other work documents were reviewed to ensure that no other rigging of the type identified has occurred since construction restart. As a result of this review, this occurrence was considered an isolated case.

This item is documented in PER WBP920057 which was initiated February 26, 1992.

As an interim action for both scaffolding and rigging, an administrative directive was issued March 12, 1992, to institute more specific requirements. The administrative directive states that, "permanent plant components are not to be used as primary members or lateral supports for scaffolding, ladders, or rigging without written authorization from field or construction engineering." Whenever a plant feature is required to be used as a primary member (except for ladders using floor grating as a primary support), site NE approval is required. This administrative directive remains in effect until the new permanent site procedure (discussed below) becomes effective.

### CORRECTIVE STEPS REQUIRED TO PREVENT RECURRENCE

Site NE revised the loading guidelines to clarify requirements and provide improved flexibility when attaching to permanent plant equipment. This action was completed April 20, 1992.

TVA has issued a new site procedure, SSP-7.56, "Scaffolds and Temporary Work Platforms," to consolidate the scaffold requirements previously contained within several documents. SSP-7.56 supersedes NPHSM, WBN Supplement III-D-4.04; SSP-6.06, Revision 1, Appendix C; and the administrative directive. It also

incorporates the applicable scaffold requirements from the corporate NPSHM, Section III-D. The approval date was May 12, 1992.

Affected Modifications engineering and craft personnel are presently being retrained to the new SSP-7.56, "Scaffolds and Temporary Work Platforms."

Scaffolds found to be in noncompliance with the new, more restrictive SSP-7.56 guidelines are to be removed, modified, or approved by site NE for use.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Corrective actions concerning scaffolding equipment will be completed by July 31, 1992.