



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-259/86-04, 50-260/86-04, and 50-296/86-04

Licensee: Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-259, 50-260 and 50-296

License Nos.: DPR-33, DPR-52,
and DPR-68

Facility Name: Browns Ferry 1, 2, and 3

Inspection Conducted: January 13-17, 1986

Inspector: E. H. Girard

E. H. Girard

3/5/86

Date Signed

Approved by: J. J. Blake

J. J. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

3/5/86

Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 35 inspector-hours on site in the areas of licensee action on previous inspection findings and inspector followup items.

Results: One violation was identified - Snubber storage, paragraph 3.a.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. L. Lewis, Plant Manager
- *J. E. Swindell, Superintendent - Operations/Engineering
- *R. A. Latimer, Inservice Inspection (ISI) Supervisor
- *E. D. Crane, ISI Programs Engineer
- *B. C. Morris, Compliance Supervisor
- *D. C. Mims, Engineering Group Supervisor
- *L. Clardy, Quality Surveillance Section Supervisor
- J. Carlson, Quality Assurance Supervisor
- J. M. Hammond, Quality Assurance Evaluator
- M. E. Gann, Quality Control Inspector
- S. Jones, Compliance Engineer
- H. Dean, Special Project Coordinator, Power Stores
- W. Zimmerman, Supervisor, Power Stores

NRC Resident Inspectors

- *G. L. Paulk, Senior Resident Inspector
- *C. A. Patterson, Resident Inspector
- *C. R. Brooks, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 17, 1986, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail inspection findings a. through c. listed below. The inspector followup item listed as d. below was identified to the licensee on January 21, 1986.

During the discussion, the inspector informed the licensee that their responsiveness to resolution of safety-related issues identified during NRC inspections, such as the concerns indicated through inspector followup items and unresolved items, appeared inadequate. The inspector stated that, based on his experience during the current inspection, it appeared that licensee individuals were not assigned clear responsibility for understanding the concerns raised by NRC inspectors, assuring any necessary corrective action was promptly taken, or providing NRC inspectors with the information needed to verify that the concerns were satisfactorily resolved.

No dissenting comments were received from the licensee.



- a. Violation 259, 260, 296/86-04-01, Snubber storage, paragraph 3.a.
- b. Inspector Followup Item 259, 260, 296/86-04-02, Implementation of corrective actions to resolve procurement problems, paragraph 3.b.
- c. Inspector Followup Item 259, 260, 296/86-04-03, Adequacy of work plan records, paragraph 3.c.
- d. Inspector Followup Item 259, 260, 296/86-04-04, Storage of radiographs, paragraph 3.a.

The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

- a. (Closed) Unresolved Item (296/82-04-02): Valve Storage Conditions.

This item was opened to identify an NRC inspector's concern that valves were being improperly stored under conditions that might result in their deterioration. The valves were stored outdoors. The inspector noted that this storage was in conflict with the requirements of the standard normally applicable to storage of equipment at nuclear plants, ANSI N45.2.2. When the item was opened, the inspector involved had not determined the identification of the valves observed, their intended use (safety-related or non safety-related), or the storage requirements applicable to Browns Ferry. The inspector opened the unresolved item for subsequent evaluation of the storage condition and its significance.

When questioned by the NRC inspector with regard to this item during the current inspection, the licensee indicated that they had no related information and had apparently not addressed the concern expressed in the item. They stated that they believed that this item pre-dated the time when they began tracking and maintaining information with regard to NRC inspection unresolved and inspector followup items.

In examining this item during the current inspection, the inspector could not address the specific valves originally observed due to the lack of information regarding their identities and the amount of time that had passed. To resolve the item, the inspector elected to examine the licensee's storage of safety-related equipment, such as valves, to determine if they were currently stored in compliance with the applicable requirements.

The licensee's requirements for storage of equipment were determined by the inspector from a review of the following documents:

- TVA Topical Report TVA-TR75-1A (Rev. 8), Section 17.2.13 (Handling, Storage and Shipping) and Table 17D-3 (Regulatory Guidance for Quality Assurance During Station Operation)



- Nuclear Quality Assurance Manual (Rev. 8/1/85), Part III, Section 2.2 (Receipt Inspection, Handling, and Storage of Materials, Components and Spare Parts)
- Nuclear Power Standard TS 01.00.15.14.03 (Rev. 0), Equipment and Material Storage Requirements for Nuclear Power Stores
- Browns Ferry Standard Practice BF 16.4 (11/27/85), Material, Components and Spare Parts Receipt, Handling, Storage, Issuing, Return to Storeroom and Transfer
- Browns Ferry Standard Practice BF 16.11 (8/7/85), Interim Storage Procedure
- U. S. NRC Regulatory Guide 1.38 (Rev. 2), Quality Assurance Requirements for Packaging, Shipping, Receiving Storage, and Handling of Items for Water-Cooled Nuclear Power Plants
- ANSI 45.2.2-1972, Part 6, Storage

Having determined the storage requirements, the inspector examined their implementation as follows:

- (1) The inspector verified that the licensee had performed required surveillances of storage through discussions with quality assurance (QA) surveillance personnel and examination of surveillance reports P-9-QAS-85-160 (2/7/85), P-11-QAS-85-462 (4/12/85), MA-1-QAS-85-896 (7/30/85) and SP-32-QAS-85-869 (8/14/85), as examples.
- (2) The inspector observed storage of equipment in the power stores storage area to determine its compliance with the licensee's storage requirements and discussed storage with responsible personnel.
- (3) As a consequence of the inspector's observations of two snubbers that appeared inadequately stored, the inspector reviewed the manufacturer's storage instructions for the snubbers. The snubbers were identified as Contract 85P73 350933, P/N 78000, KB-21 snubbers, QA-I. The storage instructions were contained in procedure BP-8396-51 (approved 12/14/84).
- (4) From discussions regarding storage with QA and storage personnel, the inspector became aware of a serious licensee identified storage deficiency which involved improper storage of items, particularly electrical cable. The matter was apparently originally identified in the licensee's Audit Deviation BF-8400-03-01. The inspector reviewed the following documents related to the matter and questioned involved personnel regarding the actions being undertaken to determine that they appeared proper:



- Corrective Action Report 84-083
- Memorandum from T. F. Ziegler to G. W. Killian, Browns Ferry Nuclear Plant - Division of Quality Assurance Audit Report BF-84000-03-01, dated 11/13/85
- Memorandum from R. D. Putman to L. W. Jones, Browns Ferry Nuclear Plant - Corrective Action Report 84-083-CABLE, dated 12/6/85
- Memorandum from J. M. McGriff to T. F. Ziegler, Evaluation Team Report on Browns Ferry Nuclear Plant Power Stores Material and Equipment, dated 11/16/84

In his examination of storage and storage documentation during the current inspection, the inspector observed ASME Section III Class 2 and 3 valves stored outdoors - an identical situation to that for which item 296/82-04-02 was opened. However, licensee personnel informed the inspector that the valves and other materials stored in the area were considered surplus and would be sold or scrapped, they would not be used at Browns Ferry. The inspector accepted this explanation and, on the basis of his examination of storage, item 296/82-04-02 is considered closed.

Unrelated to the original item of concern, the inspector observed two snubbers identified in (3) above with the following improper storage conditions:

- NQAM, Part III, Section 2.2,-Subsection 4.2, requires that equipment in storage be maintained in accordance with the manufacturer's instructions. The manufacturer's instructions specified that all openings into the snubbers be capped, plugged, or sealed, and that the snubbers be covered with waterproof tarps. On January 16, 1986, the inspector observed the snubbers stored in a Kelly Building in an open crate with openings into the snubbers lacking caps, plugs or seals. The inspector also observed that the snubbers were not covered with a waterproof tarp.
- The inspector was informed that the snubbers had been placed on "hold", because of removed parts, in accordance with the requirements of BF 16.11. BF 16.11 requires that hold tags be affixed for high visibility. The hold tag for the snubbers was found in the bottom of the open crate in which they were contained. It was not affixed for high visibility. Further, although the tag did have a number which was traceable, spaces on the tag for entry of equipment information were left blank.

The conditions described above are considered noncompliance with 10 CFR 50, Appendix B, Criterion V, requirements for compliance with instructions and procedures. This noncompliance is identified as violation 259, 260, 296/86-04-01, Snubber Storage.

While inspecting equipment storage, the inspector inadvertently became aware that licensee personnel, who were conducting a QA audit, had found evidence of improper storage of safety-related weld radiographs. The inspector identified this for further review as inspector followup item 259, 260, 296/86-04-04, Storage of Radiographs.

- b. (Closed) Unresolved Item (259, 260, 296/83-41-01): Conflicts Between Plant and ENDES Procurement Requirements.

This item identified an inspector's concern that the licensee's engineering organization and the plant organization were applying conflicting requirements in the procurement of materials. During the current inspection, the NRC inspector questioned licensee compliance group personnel and other personnel to whom he was referred to determine the status of licensee actions relative to this item. The inspector also reviewed the following memoranda which were provided to him with regard to this matter:

- Memorandum from J. A. Crittenton (Chief, Procurement Evaluation Branch) to various TVA personnel, Minutes of Meetings to Discuss Suggestions for Short-Term Improvements in Receiving Inspection Rates at TVA Sites; dated 12/16/85
- Memorandum from E. Kvaven (Chief, Nuclear Procurement Branch) to J. P. Darling (Manager of Nuclear Power); Report of Task Force for Studying and Solving Procurement Problems in the Office of Nuclear Power, dated 8/10/84
- Memorandum (with attached report) from E. Kvaven to J. P. Darling, Report of the Task Force for Studying and Solving Procurement Problems in the Office of Nuclear Power, dated 8/10/84

The inspector obtained no relevant information from discussions with any licensee personnel. From a review of the above memoranda, it was apparent to the inspector that licensee management had become aware of the material procurement problem described by the inspector; that it and related problems had been openly acknowledged and extensively reviewed by them; and that corrective actions had been recommended. In re-examining the item, the inspector found no indication that the inconsistencies in the licensee's engineering and plant procurement requirements had resulted in use of unsatisfactory material.

On the basis of the information reviewed, the NRC inspector believes that the corrective actions proposed by the licensee for their material procurement problems may satisfactorily resolve the concern expressed by the NRC unresolved item. The unresolved item will be closed. Additional NRC followup will be conducted to determine the implementation and adequacy of the licensee's proposed corrective actions. This is identified as inspector followup item 259, 260, 296/86-04-02, Implementation of Corrective Actions to Resolve Procurement Problems.

The inspector was unable to fully assess the expediency with which the licensee responded to the concern for material procurement problems expressed by the original NRC unresolved item. However, it appeared that the concern was not promptly resolved. Information provided to the inspector, principally memoranda, failed to even acknowledge the NRC concern. The response did not appear to be prompt in that the earliest action described (in the licensee's memorandum of 8/10/84) was a task force study requested in May 1984, months after identification of the concern in a 1983 NRC inspection report. In addition, complete corrective actions remain to be implemented over two years later,

- c. (Closed) Unresolved Item (259, 260, 296/83-41-05): Material Requisition Discrepancies.

This item identified an inspector's concern that QA personnel were being relied on to detect a high incidence of errors, such as material requisition discrepancies, in completed Work Plans (records). The QA personnel were reviewing all completed Work Plans and the frequency of errors that was being detected by them was so high that it was apparent that they were not performing their intended surveillance or audit function, but that they were instead, performing the functions of others who were supposed to have assured the Work Plans were satisfactory before they were submitted to QA.

During the current inspection, the inspector discussed this matter with the QA Evaluator who was currently responsible to review completed Work Plans for safety-related work. The Evaluator informed the inspector of the following action that had been taken relative to the matter of concern:

- Responsibilities for assuring the completed Work Plans were satisfactory had been clearly assigned to personnel responsible for the work
- QA was now only to check a sample of Work Plans
- Discrepancies previously identified in Work Plans by QA had been documented on Corrective Action Reports (CARs) and dispositioned for correction by Modifications personnel responsible for the work (the NRC inspector examined as examples CARs 84-094 and 83-163)

- The last significant QA check of Work Plans revealed continued deficiencies

The Evaluator stated that a QA check of newer completed Work Plans was about to begin and showed the inspector the checklist to be used. The checklist was based on criteria from the TVA Division of QA Management Surveillance Manual.

Based on his review relative to this unresolved item, the NRC inspector is satisfied that the original concern was resolved and that the item may be considered closed. However, the effectiveness of the licensee's corrective actions in assuring that continuing deficient completed Work Plans are not submitted was identified for further NRC review as inspector followup item 259, 260, 296/86-04-03, Adequacy of Work Plan Records.

4. Unresolved Items

Unresolved items were not identified during the inspection.

5. Inspector Followup Items (IFIs)

- a. (Closed) IFI (260/80-28-02): Erosion of Jet Pump Nozzle Ring.

This item was identified for inspector followup of a condition observed on a Unit 2 jet pump nozzle ring. The subject condition appeared to be minor erosion. The inspector initiated followup to determine whether the condition might become more severe during subsequent operation.

Based on his previous observations and on discussions with licensee personnel during the current inspection, the inspector is satisfied that the condition is being adequately monitored by licensee personnel and that observations to date indicate no increase in the severity of the condition. The matter is considered to require no further specific NRC attention and the item is closed.

- b. (Closed) IFI (259, 260, 296/82-17-01): NUREG 0803.

This item was identified for inspector followup on actions taken with regard to NUREG 0803 and NRC Generic Letter 81-34. These documents provided guidance for assuring the integrity of scram discharge volume piping and requested the licensee to respond the stating their conformance with the guidance.

In the current inspection, the inspector determined that his primary remaining interest in this item was to verify that inservice inspection commitments stated by the licensee in their January 20, 1982 response to NUREG 0803 and Generic Letter 81-34, had been accomplished.

The commitment was that the licensee's scram discharge volume piping would be incorporated in their inservice inspection program in accordance with ASME Section XI requirements for Class 2 piping. The NRC inspector verified this through a review of the licensee's inservice inspection program and determined that the followup item may be closed.

- c. (Closed) IFI (259, 260, 296/85-07-03): Procedures for Dealing with Allegations.

This item was identified by the inspector to further consider the licensee's lack of any procedure for dealing with allegations reported to them. In the current inspection, the inspector was informed that the licensee had developed a procedure for allegations. The inspector verified the procedure and finds that the followup item may be closed.

