



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

Report Nos.: 50-390/88-06 and 50-391/88-06

Licensee: Tennessee Valley Authority  
6N38 A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Docket Nos.: 50-390 and 50-391

License Nos.: CPPR-91 and CPPR-92

Facility Name: Watts Bar 1 and 2

Inspection Conducted: September 21 - October 24, 1988

Inspector: *G. A. Walton*  
G. A. Walton, Senior Resident Inspector  
Construction

1/10/89  
Date Signed

Approved by: *K. P. Barr*  
K. P. Barr, Section Chief  
TVA Project Section 3  
TVA Projects Division

1/10/89  
Date Signed

SUMMARY

Scope: This routine resident inspection was conducted in the areas of fire prevention and fire protection; testing of pipe supports and restraints system; review of Quality Assurance for extended construction delay; review of Quality Assurance programs; and followup on previous inspection findings.

Results: One violation was identified during this inspection involving failure to conform to approved welding specifications. This violation meets the NRC Enforcement Policy criteria for discretionary enforcement and no Notice of Vilation is being issued. One URI\* was identified concerning the compliance with the TVA QA Topical Report, paragraph five. The inspector's review of the licensee's Unit 2 construction delay plan determined that the plan is acceptable. However, if the licensee later decides to defer Watts Bar Unit 2, they will be required to comply with Generic Letter 87-15 which will require additional inspector followup.

\*URI's are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations.

8902030078 890125  
PDR ADOCK 05000390  
Q PDC

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*G. Ashley, Compliance Supervisor
- M. Brickey, Division of Nuclear Engineering
- J. Coan, Assistant Project Engineer
- G. Curtis, Assistant Project Engineer
- \*T. Dean, Compliance/Licensing
- \*R. Grau, System Engineering Supervisor
- \*C. Garrett, Site Procedures
- \*H. Johnson, Site Quality Manager
- \*M. Koltowich, Procedures Manager
- \*A. Little, Engineering Assurance
- P. Metcalf, Division of Nuclear Engineering
- \*D. McCloud, Acting Site Licensing Manager
- \*C. Nelson, Maintenance Support Supervisor
- R. Pedde, Site Director
- \*H. Simpson, Manager of Special Projects
- \*S. Stagnolia, Modifications Manager
- D. Stewart, Assistant Site Director
- \*W. Stone, Instrument Maintenance Supervisor
- \*S. Stout, Nuclear Engineering
- J. Thompson, Construction Manager
- \*R. Tolley, Project Manager's Office
- \*K. Warren, Quality Assurance
- B. Willis, Acting Plant Manager

Other licensee employees contacted included engineers, technicians, nuclear power supervisors, and construction supervisors.

#### \*Attended exit interview

Acronyms and initialisms used throughout this report are listed in the last paragraph.

### 2. Fire Prevention and Fire Protection - Unit 2 (42051)

During plant tours, the inspectors conducted observations of fire prevention and protection activities in areas containing combustible materials where ignition of these materials could damage safety-related structures, systems or components. The observations included verification that applicable requirements of AI 9.9, Rev. 15, "Torch Cutting, Welding, and Open Flame Work Permit"; Security Procedure 2, Rev. 27, "Fire Protection Plan"; AI 1.8, Rev. 13, "Plant Housekeeping" and CEP 1.36, Rev. 3, "Housekeeping" were being implemented with regards to fire prevention and protection.

Within this area no violations or deviations were identified.

3. Testing of Pipe Supports and Restraint Systems - Unit 1 (70370C)

The inspector toured areas of the Unit 1 auxiliary building and reactor building. Numerous snubbers and restraints were observed. Visual examinations were conducted to check for deterioration and physical damage of mechanical snubbers. Visual examinations were also conducted to check for damage of base support plates, fasteners, locknuts, brackets, and clamps associated with these installed pipe supports.

Within this area no violations or deviations were identified.

4. Review Of Quality Assurance For Extended Construction Delay (92050)

The inspector reviewed the licensee's "Transition To A Maintenance Mode Of Operation" plan for Unit 2, which is scheduled to be implemented by October 1, 1988. The licensee's budget reduction activities recently enacted by TVA require placing Unit 2 in a maintenance mode of operation. The plan contains the following listed activities relative to placing the unit in a maintenance mode and continuing this mode until further decisions are made by TVA regarding either deferring the plant or recommencing construction activities:

- a. Maintain all equipment, facilities, and grounds so as to protect TVA's investment and preserve licensability.
- b. Suspend all construction completion activities except the following:
  - (1) Complete all current construction activities as required to bring them to an orderly state which is conducive to plant preservation.
  - (2) Complete the following Unit 2 transfer boundaries in support of unit 1 operation:
    - System 276 Boundary (01) - Local Instrument Panels
    - System 32 Boundary (01) - Control Air
    - System 43 Boundary (02) - Sampling and Water Quality
    - System 164 Architectural - EL 713 Rm A14 Sample Rm 2
    - System 90 Boundary (01) - Radiation Monitoring
- c. Suspend all Unit 2 design completion activities except the following:
  - (1) Complete in process design change work packages (ECNs, DCNs, etc.) to a status point which represents a logical point for activity termination.

- (2) Provide design support for changes necessary to support maintenance and preservation of the plant.
- d. All preventive maintenance activities necessary to protect the investment and preserve licensability shall be conducted.
- e. Take necessary actions to maintain code certification (ASME N-Stamp will be preserved by maintaining an ASME Section III Program). ANI support will be available.
- f. Walkdowns will not be employed to establish status; drawings will not be redlined to document status. Current status will be determined only for those components, systems and structures on which construction work has been initiated but not completed. All open paperwork will be retrieved and used as a basis for documenting current status in TROI.
- g. Repair all equipment/structural failures which are required to maintain environmental conditions or to avoid risk of plant deterioration.
- h. Store material as required to maintain usability. TVA will continue to evaluate economic considerations for storage or surplus of certain materials (e.g., structural steel, pipe, fabricated miscellaneous steel, etc.).
- i. Continue to implement the QA program with little change. Unit 2 CAQs for materials will continue to be processed in an effort to release the material. All other unit 2 only corrective action will be placed on hold indefinitely by appropriate codes in TROI. Audits and surveillances will be conducted commensurate with the level of activity ongoing for unit 2.
- j. Unit 2 initial fuel core will remain on site.
- k. Training will generally be provided through programs ongoing for unit 1. Training for unit 2 specific procedures will be maintained for a minimal number of NC/NQA personnel.
- l. TVA will consider Watts Bar Unit 2 an active construction project. NRC requirements will not be limited to those included in Generic Letter 87-15 (policy statement on deferred plants).

Commensurate with this program, the licensee has issued a Site Director Procedure AI-7.11, Revision 0, "Evaluation For Unit 2 Hold Status". This procedure establishes the method for reviewing, identifying, documenting and placing on a hold status those items strictly pertaining to Unit 2 fuel load. The reviews will consist of CAQRs and licensing issues. The procedure clearly identifies that it is not the intent of the procedure to prohibit the identification of Unit 2 problems nor to defer corrective

actions to protect the health and safety of the employees and public or to prevent damage to equipment. The procedure describes the reviews necessary to allow Unit 2 items to be placed on hold and to ensure that the items are not required to support licensing of Unit 1. The procedure allows an item to be placed on hold status if the evaluations determine the item is not required for Unit 1 operation, is not a Layup/PM item, not programmatic, or is not economical to continue work.

No violations or deviations were identified in the review of this program area.

#### 5. Quality Assurance Program (35742B)

TVA Topical Report, TVA-TR75-1A, Revision 10, transmitted to the NRC in accordance with 10 CFR 50.54(a) (3) on May 4, 1988, was implemented on site on July 10, 1988. The inspector selected a specific commitment from Table 17D-1 of the Topical Report and audited the licensee on site compliance with the commitment. The commitment selected was Regulatory Guide 1.38, Revision 2, May 1977 "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants". Regulatory Guide 1.38, Revision 2 endorses, with additional requirements, ANSI N45.2.2, 1972, "Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants During the Construction Phase". Table 17D-1 lists five exceptions to compliance with the above standards. For this audit, the inspector selected exception number five for review of on-site compliance.

Exception number five states; "TVA takes exception to the requirement of (ANSI N45.2.2, Section 6.4.2(8), that other maintenance requirements specified by the manufacturer's instruction for an item shall be performed. TVA's alternative shall be to follow the manufacturer's maintenance instructions unless the TVA standard maintenance program is approved by the manufacturer with respect to the equipment in question".

A review of Engineering Requirement (ER) Specification, MEB 005, Revision 3, found that the requirements were different from those in the Topical Report. Specifically, paragraph 4.1.1.2.7 of MEB 005 implies that for layup and layup PM, DNE can approve deviations from vendor PM requirements without requiring vendors approval of these deviations.

Additionally, the inspector audited the records of three Limitorque Valves, 2-FCV-003-33, 2-FCV-001-15, and 2-062-V-FCV-138, installed in the plant against the manufacturer's maintenance instructions. The requirements stated in the manufacturer's manual require that listed minimum inspection, on eighteen month intervals, be performed. One of these requirements is to megger the motor.

On each valve audited, the licensee had not performed this test. Further, the licensee had not obtained approval from the manufacturer as required by Revision 10 of the Topical Report.

The licensee advised that Revision 11 of the Topical Report was presently receiving final review and would be issued soon. The licensee indicated that revision 11 of the topical will change the requirements regarding the above items. Additionally, the licensee plans to issue a letter to the NRC which modifies Revision 10 of the Topical Report in this specific area.

The inspector questioned the method used by the licensee to assure that lower tier procedures are revised prior to implementation of the Topical Report. The licensee advised that they did not have a formal program which assured this would occur. This is identified as URI 390, 391/88-06-01, "Compliance With Topical Report", pending further review of the licensee's action on this item.

6. Action on Previous Inspection Findings (92701)

- a. (Closed) URI 390/85-45-02, 391/85-36-02, Control of Materials For Use On Austenitic Stainless Steels.

This item was identified as an unresolved item when the inspector observed that color coding was omitted from mill files, grinding rocks, and flapper wheels being used on stainless materials. Subsequent discussion with cognizant licensee personnel established that some materials for use on stainless steels are not color coded, and craftsmen involved are expected to maintain separation of similar materials after their use on carbon steels. The inspector noted that this practice considerably increased the potential for improper use of the tools involved.

The inspector also observed that the weld joint preparations were not cleaned before welding when flapper wheels were used to buff the weld joint areas. Cognizant licensee personnel informed the inspector that this type of cleaning had not been done during construction at WBNP.

The licensee has provided the following responses and corrective actions on this matter.

WBNP has revised the applicable paragraph of Process Specification 4.M.1.1, to better describe the need for cleaning any residue from the affected areas of the weld joint. The unit 1 maintenance tool room has developed and implemented a program according to Section Letter M-13 for controlling mill files, grinding wheels, flapper wheels, and wire brushes used on stainless steel. Construction has also developed and implemented Construction Engineering Procedure (CEP) 1.06-1 for control of abrasive tools/implements used on stainless steel materials. Both of these procedures describe the control and identification marking of tools used on stainless steel materials at WBNP. These actions will assist the crafts in maintaining segregation during fabrication activities. In response

to the halogen content, a memorandum was issued on November 8, 1985, by the licensee addressing the affects of the resulting flapper wheel residue. This memorandum concluded that there was no evidence to suggest that the lack of cleaning flapper wheel residue has any adverse effect on weld ability and the probability of halogen-induced cracking would be negligible. Significant traces remaining after welding will be removed by internal flushing and external pipe cleaning.

The inspector reviewed the following listed licensee's documents relative to this issue:

- Process Specification 4.M.1.1, Revision 10, "Material Fabrication And Handling Requirements Austenitic Stainless Steel"
- Addendum 1 to Process Specification 4.M.1.1, Revision 10
- WBN-QCI-1.2p, Revision 10, "Site Control Of Procurement"
- Construction Engineering Procedure, CEP-1.06, "Receiving And Storage"
- Construction Engineering Procedure, CEP-1.06-1, Revision 0, "Control Of Abrasive Tools/Implements Used On Stainless Steel Materials"
- Materials Section Letter No. M-13, "Control Of Mill Files, Grinding Wheels, Flapper Wheels, And Wire Brushes Used On Stainless Steel"
- TVA Internal Memorandum dated November 8, 1985, (Rims B45 851108 271) which discusses the effects of residual halogens

Additionally, the inspector audited one tool room issue station and verified that wire brushes and flapper wheels were painted with appropriate colors that distinguishes the allowable uses on stainless and carbon steel materials as specified in the appropriate procedure. All areas reviewed were found acceptable and this item is closed.

b. (Closed) URI 390, 391/88-03-01, Adequacy Of Audits.

This URI identified that the licensee's QA audit reports appeared to focus primarily on compliance with the NQAM and site implementing procedures, with little emphasis on compliance with the QA Topical Report and FSAR commitments. This appeared to violate procedure Quality Method Instruction (QMI)-328, "Audit Preparation, Conduct and Reporting", Paragraph 6.2.3.1.c, which required that audits, among other requirements, verify QA program compliance with specific requirements of the source references listed in the audit modules.

Audit modules were attachments to procedure QMI-322. These modules provided the audit number, title, scope, frequency, and source references (controlling documents) for the various preplanned audits. These source references included, as applicable, the QA Topical Report and FSAR. This lack of emphasis on verifying QA Topical Report and FSAR commitments is significant since previous violation 390, 391/87-05-01 and URI 390, 391/87-05-02 identified American National Standards Institute (ANSI) standards committed to by the QA Topical Report, but not properly implemented in site procedures. It appears that one major reason the ANSI standards were not properly implemented for about six years was the lack of audit emphasis. On June 13, 1988, at the exit interview, the licensee advised that QMI-328, Revision 1, was being revised to clearly define the requirements to include the commitments contained in the QA Topical Report and the FSAR. Additionally, the licensee advised that they had recently completed an audit of previous audit reports and found the QA Topical Report and FSAR commitments to have been considered.

The licensee has taken the following action to resolve the issue: The Watts Bar Quality Audit Group did an evaluation of the audit program from October 1985 through April 1988 to identify audit utilization of the ANSI "roll-down" concept. Sample size of this evaluation consisted of:

- 51 audit reports
- 31 audit checklist/source documents used
- 96 deviations or conditions adverse to quality reports contained in the 51 audit reports.

Results of this review showed ample evidence to support auditor's use of upper-tier documents in their checklists and that a number of audit findings were in fact written against lack of compliance to upper-tier requirements.

Within the previous sample, upper-tier references (Topical Report, ANSI, Regulatory Guides, etc.) were applicable and/or used in the following instances:

- 98 percent (50 of 51) audit reports
- 77 percent (24 of 31) checklists
- 21 percent (20 of 96) deviations/conditions adverse to quality reports

Procedure QMI-328, has been revised to clarify the reference to upper-tier documents (section 6.2.5.2 and attachment 2, page 3). This audit program enhancement will improve auditor techniques to



assure checklist planning provides a visible trail for challenging implementing procedures for adequate inclusion of quality assurance requirements of upper-tier documents.

The inspector reviewed five audit reports, number WBA 88819, 88815, 88814, 88811 and 88808 and verified the licensee's audits had considered ANSI and TVA's Topical Report. Additionally, the inspector reviewed the changes made to QMI-328, Rev. 2, dated August 30, 1988. This item is closed.

c. (Closed) URI 391/87-13-03, Adequacy Of Grouted Anchors.

This URI identified conflicting conclusions regarding the adequacy of installing concrete expansion anchors in grout. An internal study completed by the licensee in 1977 indicated acceptance of this practice. A CEB Report 82-27 submitted to NRC in response to IE Bulletin 79-02 stated that the test results obtained cast doubts on the consistency and predictability of grouted bolts.

The licensee has revised CEB Report 82-27 to more accurately reflect the results of the cyclic tests and to remove any doubt as to the adequacy of grouted bolts. CEB Report 82-27, Rev. 1, deletes the statement, "However, the test results cast doubts on the consistency and, in turn, the predictability of grouted bolts", and retains the conclusion that "the grouted bolt would be expected to exhibit lower displacements at higher load levels than the wedge bolt or self-drill anchor".

The rewrite of the conclusions is substantiated through out revision 1 of this report based on the test results achieved. Section B3, "Grouted Bolt Anchors", test results have been expanded to provide additional detail to the original test report. The inspector reviewed CEB Report 82-27, Revision 1, dated December 29, 1987, and concluded the revised changes adequately support the licensee's position on the acceptability of installing concrete expansion anchors in grout. This item is closed.

d. (Closed) IFI 390/85-57-06, 391/85-46-02, Construct and Reinspect of Hanger In Accordance With FCR.

This inspector followup item identified a concern that when a hanger cannot be installed in accordance with the details shown on the construction drawings because of interferences or other reasons, an FCR is generated by construction or site engineering personnel. The FCR is transmitted to TVA Design Engineering for approval. Until the FCR is approved, the hanger documentation is placed in a pending FCR status. When the FCR is approved, the documentation is completed and sent to the vault. It is not necessary to reinspect the hanger. If the FCR is returned to the site "approved as noted" (i.e., FCR was revised by Design Engineering), the hanger is partially reinspected.

The only portion of the hanger that is reinspected is that portion affected by the revision to the FCR. Since work is permitted to be performed on hangers in the pending status, the completed hanger may not be constructed in accordance with the approved FCR and other design documents. Also, the FCRs may or may not have been reviewed by QC personnel. Therefore, the inspector questions why the hanger is not reinspected after the FCR is approved to assure that the hanger was installed in accordance with the requirements of the approved FCR and other design documents.

The licensee provided the following response to this item.

When a support cannot be installed in accordance with the design drawings, the construction engineer is required to prepare a field change request (FCR). This FCR is to document the as-constructed configuration and is to serve as a request for approval of concurrence from the design engineer. This concurrence is defined as "Conditional Approval" in Quality Control Instruction (QCI)-1.13, "Preparation and Documentation of Field Change Requests". Once conditional approval is obtained, the installation is completed using the FCR and the design documents. The support is then inspected to the "Conditionally Approved" FCR and design documents. After inspection, the support is placed in the "pending status" while design engineering formally approves the FCR.

The FCR may be approved "as noted", meaning that rework is required. Construction completes the required rework and quality control (QC) inspects the "as noted" attributes. The support is now in conformance with design drawings and an approved FCR; the documentation is then approved and submitted for storage in the vault. If the FCR was approved without notes, further inspection is not necessary since the QC inspector has inspected the as-built configuration previously documented on the "Conditionally Approved" FCR.

Work may be performed on a support placed in the "pending status". An example of this work is the removal of a support to allow access to other components. These activities are controlled using work releases and workplans. These work control documents provide assurance that the support is removed, stored, reinstalled according to design or conditionally approved design, and inspected.

The above description is how TVA completed field changes to support installation in 1985, when this inspection followup item was written. Since that time, the program for completing field changes has been revised by Administrative Instruction (AI)-8.14, "Design Change Notice (DCN)". Closure of outstanding FCRs will be completed in accordance with the WBN-QCI-1.13 procedure.

The inspector reviewed the above documents and verified that DCNs are controlled documents used for identification, evaluation, and resolution of necessary changes or clarifications to engineering documents. They are used to request changes previously documented on FCRs, support variances sheets (SVSs), and specification revision notices (SRNs). Also, AI-8.14 provides an A-DCN as a controlled work method for "advance authorization" for Construction/Nuclear Site Director Organizations. The A-DCN is similar to the FCR in that it allows work to proceed on a risk basis for simple or urgent changes as outlined in Appendix A of AI-8.14. Following advance authorization, the A-DCN is processed to become a regular DCN. To ensure inspection to DCNs, Nuclear Quality Assurance (NQA) will sign the DCN after work completion to document inspection completion and cross-reference applicable inspection reports.

Based on the inspector's review of the licensee's previous program and current program, the inspector is satisfied that proper controls are in place to assure reinspections are being performed after rework has occurred. This item is closed.

- e. (Closed) URI 390/86-17-11, Unauthorized Use of Downhill Weld Technique.

This unresolved item identified that certain welds on drawing 48N1332-2 and 48N1332-3 were completed with the shielded metal arc process (SMAW), using E7018 filler metal and the vertical downhill progression welding technique. Through discussions with the cognizant EG&G inspection supervisor, the inspectors determined that this welding technique was not an attribute of the weld reinspection effort. Review of documentation provided by the cognizant TVA structural engineering representative disclosed that the welding technique and welder may not have been qualified as required by AWS-D1.1, Structural Welding Code.

The licensee provided the following response to this item.

The downhill weld attaching the clip angle, section A-A, was removed and the clip angle relocated per drawing 48B1698-3. The downhill weld attaching the clip angle, section B-B, was ground down as far as possible without damage to the base metal and the weld revised from a vertical (downhill) weld to a horizontal weld with 1-inch returns, leaving the remaining vertical weld structurally insignificant. This welding has been completed and inspected. All other welds shown on these drawings were found acceptable without modification. EG&G and TVA welding inspectors have been instructed by their supervision to be cognizant of the direction of travel requirements during inspections and to investigate any weld progression that is questionable. Quality Maintenance Instruction (QMI)-810.8, "Welding QC Surveillance", provides requirements for welding surveillance activities performed by QC. Two of the attributes monitored by QC

are proper utilization of assigned weld procedures and weld procedure compliance, including travel speed. All weld progressions which do not comply with the weld procedure shall be reviewed for nonconformance reporting.

Welders are also informed during indoctrination to site welding requirements by construction that strict compliance with procedures is required with regard to weld progression. G-29 "General Welding Procedure Specification" 1.M.1.2 and 1.C.1.2 define weld progression requirements.

The instructions to welders, combined with a renewed awareness by the EG&G and TVA welding inspectors, will eliminate future weld progression nonconformances.

The inspector's review of this item revealed the following.

- Downhill welding performed in accordance with the licensee's General Construction Specification G-29C, Process Specification 1.C.1.2, and AWS D1.1 is prohibited unless the welder and the weld procedure are qualified using the downhill welding technique. The licensee was unable to provide evidence welder or procedure were properly qualified. Therefore, for these two welds, it is apparent a procedure violation occurred.
- The welds in question were removed and rewelded in accordance with a qualified weld procedure and qualified welder.
- EG&G has completed the weld reinspection effort and no other downhill welding violations were identified.

The inspector has determined that this procedure violation was limited to two welds and the licensee has taken adequate corrective action to resolve NRC concern. As a result of OSP management review, this issue is considered appropriate for discretionary enforcement since the issue is a Severity Level V violation, is isolated and the licensee has taken adequate corrective action. URI 390/86-17-11 is closed and VIO 390/88-06-02 is opened for tracking purposes and VIO 390/88-06-02 is closed through discretionary enforcement.

f. (Closed) IFI 390/84-35-05, Control Room Chlorine Monitor.

During the NRC's inspection documented in IR 50-390/84-35, the inspector noticed a discrepancy between the installed Control Room Ventilation Chlorine Monitor system and the FSAR description contained in Section 9.3.1.1. The referenced FSAR Section states, in part, "Indicators are provided with the chlorine detectors...Main Control Room annunciation is provided for each ...detector."

The actual installation did not provide for quantitative indication; however, there was an alarm light on the instrument as well as an annunciator in the Control Room. The review of this item is included

in the final closure of URI 390/85-21-03 discussed below. Based on the information provided for closure of URI 390/85-21-03, this item is closed.

g. (Closed) URI 390/85-21-03, Chlorine Detection System Installation.

During a walkdown of the chlorine detection system, the inspector observed that there appeared to be an extremely long suction line from the sample pump of the chlorine indicator to the control room air intake ducts. The inspector was unable to fully trace the detector lines to the air intake, but estimated the distance to exceed 100 feet.

The applicant was not able to confirm that the detector would function satisfactorily.

The applicant provided documentation stating that the use of large volumes of chlorine on site had been reconsidered, and that sodium hypochlorite would be used instead. Subsequent analysis allowed for deletion of the chlorine detectors. The decision, analysis, FSAR changes, and Technical Specification changes were sent to the NRC in April and May, 1985. The documentation further stated that verbal concurrence had been received from the NRC for deletion of the chlorine detectors on September 5, 1985, and that formal concurrence would appear in Supplement five to the SER.

The Engineering Change Notice (ECN) for the removal of the chlorine detectors (ECN 5889) was prepared on September 26, 1985, and closed on February 24, 1986. A deferred work notice was issued on June 4, 1986, by the Change Control Board. Since the system will not be required by the FSAR, removal of the chlorine detection system is being deferred until after fuel load.

With no gaseous chlorine on site in significant amounts, no need would exist for operational detectors to be in place. FSAR validation will be accomplished as part of the normal preoperational inspection program, therefore, this item is administratively closed.

h. (Closed) IFI 390/85-12-01, Failure to require a 30 minute time interval between sampling and counting to ensure detection at Lower Limits of Detection (LLD) as specified in procedure TI 20.30, "Lower Limits of Detection".

The inspector noted that the licensee response stated that TI 20.30 had been revised to specify maximum sampling-to-counting times of 90 minutes for liquid samples, 60 minutes for noble gases, and four days for iodines and particulate samples. The response further stated that the appropriate Surveillance Instructions included the specified sampling-to-counting time constraints. Revised pages from TI 20.30 were included showing the new time constraints.

In order to close out this item, the calculations used to determine the maximum sample-to-count time required to achieve the minimum LLDs should be verified. The radiological and chemistry control programs will be re-reviewed as part of the preoperational inspections and routine inspections, which will be conducted prior to plant operation, this item is administratively closed.

- i. (Closed) URI 391/87-19-04, Licensee's Review and Disposition of Radiographic Film.

This unresolved item identified that weld FW2-041A-T003-04 has an indication resembling slag or weld concavity. This weld is being radiographed to obtain more data for evaluations. This weld is presently being investigated by the licensee's re-review team.

The licensee re-radiographed the subject weld and evaluations were performed by a licensee Level II and Level III film reviewer. The review found the weld acceptable. This item is closed.

- j. (Closed) IFI 390/86-14-05, 391/86-14-04, Use of Standard Practices to Control Safety Related Activities.

This IFI questioned the licensee use of Standard Practices because it was the inspector's understanding that Standard Practices were to be used to establish office-level policy only and not for the accomplishment of safety related work.

The licensee responded to the IFI as follows:

- As described in Site Director Procedure WB1.1, the WBN Standard Practices are written instructions which govern employee actions and establish standards for site and plant operation. They provide administrative restrictions and station requirements to ensure operation of the plant within specified limits. Standard Practices are not intended to be used for the direct accomplishment of safety-related work and normally do not duplicate the instructions contained in the Nuclear Quality Assurance Manual, Health Physics Manual, Administrative Release Manual, Nuclear Materials Management Guide, or the TVA Hazard Control Manual. These manuals contain general information and reference, interpretation, or elaboration, such parts should be issued as a Standard Practice. New and revised Standard Practices which implement Quality Assurance Program requirements shall be reviewed and concurred with by Site Quality Assurance prior to use.

The inspector reviewed the licensee's position on this matter and this item is considered closed.

## 7. Exit Interview

The inspection scope and findings were summarized on October 25, 1988, with those persons indicated in paragraph one. The inspectors described the areas inspected and discussed in detail the inspection results listed below. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
390/88-06-01	Open	URI - Compliance With Topical Report, Paragraph 5.
390/85-45-02 391/85-36-02	Closed	URI - Control Of Materials For Use On Austenitic Stainless Steel, Paragraph 6a.
390/88-03-01 391/88-03-01	Closed	URI - Adequacy Of Audits, Paragraph 6b.
391/87-13-03	Closed	URI - Adequacy Of Grouted Anchors, Paragraph 6c.
390/86-17-11	Closed	URI - Unauthorized Use Of Downhill Weld Technique, Paragraph, 6e.
390/85-21-03	Closed	URI - Chlorine Detection System Installation, Paragraph 6g.
391/87-19-04	Closed	URI - Licensee's Review and Disposition of Radiographic Film, Paragraph 6i.
390/85-57-06 391/85-46-02	Closed	IFI - Construction and Reinspection Of Hanger In Accordance With FCR, Paragraph 6d.
390/84-35-05	Closed	IFI - Control Room Chlorine Monitor, Paragraph 6f.
390/86-14-05 391/86-14-04	Closed	IFI - Use of Standard Practices to Control Safety Related Activities, Paragraph 6i.
390/85-12-01 391/85-12-01	Closed	IFI - Complete Revision and Updates of TIs, Paragraph 6h.

## 8. List of Acronyms and Initialisms

A-DCN	Advance Design Change Notice
ANI	Authorized Nuclear Inspector
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
CAQR	Condition Adverse to Quality Report
CEP	Construction Engineering Procedure
DCN	Design Change Notice
EA	Engineering Assurance
ECN	Engineering Change Notice
ER	Engineering Requirement
FCR	Field Change Request
FSAR	Final Safety Analysis Report
IFI	Inspector Followup Item
NCR	NonConformance Report
NEP	Nuclear Engineering Procedure
NQA	Nuclear Quality Assurance
NQAM	Nuclear Quality Assurance Manual
OSP	Office of Special Projects
QA	Quality Assurance
QC	Quality Control
QCI	Quality Control Instruction
QMI	Quality Method Instruction
SER	Safety Evaluation Report
SMAW	Shielded Metal Arc Welding
SRN	Specification Revision Notice
SVS	Support Variance Sheet
TI	Temporary Instruction
TROI	Tracking and Reporting of Open Items Report
TVA	Tennessee Valley Authority
WBNP	Watts Bar Nuclear Plant