



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

Report Nos: 50-390/89-20 and 50-391/89-20

Licensee: Tennessee Valley Authority  
 6N11 B Missionary 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: October 18, 1989 - November 20, 1989

Inspectors:	<u>A. R. Long for</u> M. W. Branch, Senior Resident Inspector Operations	<u>1/2/90</u> Date Signed
	<u>A. R. Long for</u> S. P. Burris, Senior Resident Inspector Operations	<u>1/2/90</u> Date Signed
	<u>A. R. Long for</u> G. A. Walton, Senior Resident Inspector Construction	<u>1/2/90</u> Date Signed
	<u>A. R. Long for</u> P. G. Humphrey, Resident Inspector	<u>1/2/90</u> Date Signed
Consultants:	<u>A. R. Long for</u> R. Brown	<u>1/2/90</u> Date Signed
Approved by:	<u>Bruce A. Wilson for</u> K. P. Barr, Section Chief Projects Section 3 TVA Projects Division Office of Nuclear Reactor Regulation	<u>1/3/90</u> Date Signed

SUMMARY

Scope: The inspection consisted of reviews of electrical cables, technical issues, the Quality Assurance program, security, and licensee actions on previous inspection findings.

Results: One Violation, one Non-Cited Violation and three Unresolved Items\* were identified during this inspection period and are listed below. All other areas reviewed were found to be acceptable.

-Violation 390,391/89-20-02, Failure to Follow Prescribed Instructions, with two examples:

-Example 1, Tools and Metal Debris in Electrical Cable Trays (Paragraph 2.D)

-Example 2, Independent Verification of "Tag-outs" not Performed as Required (Paragraph 4)

-Non-Cited Violation 390,391/89-20-05, Calculations to Support Deviations from NSSS specifications were Improperly Performed (Paragraph 6.A)

-Unresolved Item 390/89-20-01, Electrical Cable and Cable Tray Concerns, with three examples:

-Example 1, The Computer Cable Routing System did not Identify all Cables in a Cable Tray (Paragraph 2.A)

-Example 2, Documentation, Traceability and Qualification of Cable Repairs were not found in the CCRS (Paragraph 2.B)

-Example 3, Questionable Splicing of Electrical Power Cables in Cable Trays (Paragraph 2.C)

-Unresolved Item 390,391/89-20-03, Concerns Regarding Storage of Quality Assurance Records, with two examples:

-Example 1, Records that Appeared to be QA Construction Records Not Stored Properly for that Record Classification (Paragraph 3.A)

-Example 2, Review of 4-hour Fire Rating Requirement for the Permanent Plant Record Storage Vault (Paragraph 3.A)

-Unresolved Item 390/89-20-04, Repair of Upper Head Injection Pipe Welding Defect Appeared Inadequate (Paragraph 3.B)

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

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees:

- \*G. Ashley, Compliance Licensing Support Supervisor
- G. Brantley, Employee Concerns Site Representative
- \*J. Cruise, Site Licensing Engineer
- T. Dean, Compliance Engineer
- D. Douthit, Program Manager
- \*E. Fuller, Chairman, Program Team
- \*W. Hastie, Acting Plant Manager
- T. Horning, Regulatory Licensing Supervisor
- \*L. Jackson, Operations Manager
- H. Johnson, Site Quality Manager
- M. Jones, Startup and Test Manager
- \*D. Koehl, Technical Support Superintendent
- P. Mandava, Project Engineer
- C. Nelson, Maintenance Manager
- L. Nolan, Construction Manager
- \*J. Scalice, Plant Manager
- \*R. Stevens, Licensing Manager
- R. Wilson, Vice President, New Projects

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

\* Attended exit interview

- \*M. Branch, Senior Resident Inspector
- \*G. Humphrey, Resident Inspector

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

### 2. Electrical Cables (51063)

The inspectors performed an inspection of electrical cable tray #5B2081 to evaluate 1) cables spliced to implement temporary alteration #1-84-57-63, and 2) engineering documentation as a result of the work being performed on maintenance work request #MR-A273356. Results of the inspection revealed that the splices were identified and were in the WBN program to be evaluated for replacement. However, these cables had since been spared. According to engineering management personnel, the cables

will not be suitable for future use and will not be permanently spliced. Further inspections of the cable tray, other cable trays in the general area, and associated documentation indicated the following problems:

A. Computer Cable Routing System

The Computer Cable Routing System listing for cable tray #5B2081 was reviewed to determine if all 18 cables in the tray were listed. The CCRS indicated that only 17 cables were in the tray. This discrepancy was identified as example 1 of URI 390/89-20-01, Electrical Cable and Cable Tray Concerns, open pending additional NRC review.

B. Cable Repairs

The inspector was unable to determine that a record existed for the cable insulation repairs found in cable tray #5B2081 and that the repairs were properly implemented. Due to the lack of identifying location and documentation of this type of repairs, it was unclear as to how acceptable EQ of these cables could be demonstrated. The inspector requested the licensee to remove and inspect the NJRS Raychem Repair kit which had been installed before or during the installation of a splice kit on adjacent cable. The inspector reviewed the following work control documents associated with the Raychem removal to insure that the licensee was performing this activity in accordance with their approved administrative program:

- Maintenance Request A-631371
- WBN-CPI-8.1.8-E-102
- AI-1.8
- AI-9.23
- Work Plan M-5688-2

The craft personnel reviewed the work plans and instructions prior to commencing any work activity to ensure that they were familiar with the expected results of each activity. Removal of the Raychem Repair Kit was accomplished in accordance with approved practices by slitting the outer material, heating with a hot air gun, and prying off the loose material. When the Raychem splice material was removed from the damaged area, it was noted that the cable outer jacket had been removed and the shield material had been replaced with approximately six inches of braided material. The braided material had been wrapped around the cable and soldered at each end. Review of the current cable repair procedure revealed that this type of cable repair was not an approved repair method. The licensee reviewed the previous revisions of the repair procedure applicable when the repair had been performed and found that the procedure did not address this type of repair. A later issue of the procedure added the stipulation that any damage to cable shield material required that a complete cable splice be performed.

The licensee initiated an investigation of the above concerns, which included documentation and traceability of repairs, qualification of repairs, and acceptability of repairs on medium voltage cables. This item was identified as example 2 of URI 390/89-20-01, Electrical Cable and Cable Tray Concerns pending completion of TVA's investigation and review by NRC.

C. Splicing of Class 1E Electrical Cables in Cable Trays

The practice of splicing class 1E electrical cables in cable trays was questioned by the inspectors. It was noted that the tray in the area of spliced cables 1-5PP-63-612B and 1-5PP-74-587B had been sealed with fireproofing material at each end and these cables had been spared. Other active cables still remained in the tray with the spliced cables. NCR 5612, dated October 19, 1984, documented the above cable splices. Splicing of cables in cable trays is not allowed by current standards without prior approval and was identified as example 3 of URI 390/89-20-01, Electrical Cable and Cable Tray Concerns pending additional NRC review.

D. Cleanliness

The following tools and metal debris were found by the inspector in cable trays 5B2081 and 4B2125:

Cable tray 4B2125

1. Ratchet and socket
2. Portable Jack
3. Container with graphite lubricant
4. Box-end wrench

Cable tray 5B2081

1. Nails
2. Insulation clips
3. Metal debris

The inspectors noted that Violation 390/84-66-01 was previously cited because foreign material was found in one of these same cable trays, 5B2081. Procedures did not include requirements to inspect enclosed cable trays to ensure that no debris is left inside before installing the cover. In response to this violation, Quality Control Procedure WBN-QCP-3.04, "Inspection and Documentation of Cable Tray Systems," was revised to require a cleanliness inspection before installing the cable tray cover.

Maintaining cleanliness in electrical cable trays is necessary because debris could damage safety-related cables. Adequate procedures must be established and implemented to control cable tray cleanliness and prevent activities adversely affecting quality during and after maintenance activities, and also during normal plant activities.

The failure to maintain cleanliness in the cable trays was identified as example 1 of Violation 390,391/89-20-02, Failure to Establish and Implement Procedures for Activities Affecting Quality.

### 3. Review of Technical Issues (37051)

#### A. Storage of Quality Records

The inspectors reviewed construction records that had been relocated from a storage area in the construction administration building to a small outside building. The purpose of this review was to determine if the records met the Quality Assurance criteria for Life of Plant construction records and if the storage was in compliance with plant commitments. The small building, other than having a lock on the door, appeared to provide minimum security and did not provide a rodent free environment due to unsecured penetrations in the floor.

The inspectors were informed by construction management that the records relocated to the outside storage building were not QA or LOP records and therefore the storage was adequate. Licensee management further stated that the status of the records was determined by construction personnel after a thorough review had been performed prior to the relocation, utilizing the Records Accountability Program as a guideline for evaluating the quality level of each record for storage requirements.

Construction management did report that some QA and LOP records were found during the review and that these records were placed in the construction record storage vault rather than being relocated to the outside storage facility. This effort was initiated as a result of CAQR #890277, which was written because of improper storage of the records initially.

The inspectors sampled and reviewed records that were relocated to the outside building and found that work plans stored there were associated with class 1E and fire protection systems and documented work that been started but not completed. The inspectors were informed that the storage was suitable for these workplans since the work package was not a QA document prior to completion of the work and finalization of the work plan documentation. In the event that one of these work packages were lost, the documentation could be re-created.

The WBN Site Quality Assurance group performed an audit (report number QWB-M-89-1028) of the stored records in question. This audit had been prompted as a result of the involvement of the Site Employees Concerns personnel. The audit revealed the following:

Original workplans identified as being in progress were stored in fire-rated cabinets and in a locked area.

General Construction Specification G-73 "Inspection, Testing, and Documentation Requirements of Fire Protection Systems and Features", required records to be maintained for activities affecting the fire protection system. The cabinets stored in the outside storage facility ("hut") were found to contain numerous test and inspection records for this system. An alternate record could not be located, and it could not be determined if an alternate copy of these documents existed since many records had been sent off-site for microfilming.

Hydrostatic/pneumatic pressure test operation sheets for the Auxiliary Feedwater system were found in these files. These records indicated that the piping tested was TVA class B and required to ensure the integrity of the system. Again, it was indeterminate if an alternate copy of these documents was being microfilmed.

Completed workplan WP-GA063AZ was found in a file cabinet in the storage hut, and was dated after the date that TVA had committed to maintaining completed workplans as LOP records. DCRM did not have an alternate copy.

Storage, periodic maintenance, tests, and inspection records associated with the spare emergency diesel generator and for electrical switchgear were found in the file cabinets stored in the hut. An alternate copy could not be determined to exist.

Numerous electrical cable pull cards located in these cabinets were for cables identified as deleted or spared cables. It was unknown if the cables had been removed from the plant or were abandoned or spared. Maintaining these records was not required for cables removed from the plant. However, if these cables were abandoned or spared, the records were required to be maintained.

The inspectors determined that QA records were being stored in the outside hut. However, if duplicate copies existed for these records, the storage requirements in the hut could be acceptable.

The licensee had taken positive action to evaluate the situation as a result of the ECP involvement and prior to the inspectors' review of the issue. Therefore, this issue was identified as example 1 of URI 390,391/89-20-03, Storage of QA Records, pending the findings and corrective actions of the licensee.

The WBN permanent plant records storage vault and associated commitments were reviewed by the inspectors during this reporting period. It was found that the storage vault did not meet the minimum 4-hour fire rating as required by the Topical Report, TVA-TR75-1A, Revision 10, Table 17D-2, dated June 16, 1989.

The inspectors noted that Revision 10 of the Topical Report committed to standards specified in Regulatory Guide 1.88 for the storage facility of permanent plant records. RG 1.88 implements ANSI Standard N45.2.9-1974, which requires a 4-hour fire rating for the permanent records storage facility.

Review of the FSAR, Chapter 17, Amendment 55, indicated that the licensee modified their commitment and took exception to the 4-hour fire rating of the records storage facility, and permitted a 2-hour minimum. However, it appeared that Amendment 53 of the FSAR was the last amendment to be accepted by the NRC and implemented the 4-hour rating.

Previous revisions (Revisions 8 and 9) of the Topical, Table 17D-2, had implemented the 1979 edition of ANSI Standard N45.2.9 and had allowed the 2-hour fire rating. However, the latest revision, Revision 10, changed the requirement back to the 4-hour rating.

A corrective action plan for Quality Assurance Records, and the Nuclear Quality Assurance Plan had been submitted by the licensee for NRC approval. Both plans implemented the 2-hour fire rating for the record storage facility. During a review of the NQAP, the NRC had requested additional information associated with the use of the 1979 version of the ANSI Standard N45.2.9 which allowed the 2-hour fire rating. A response from the licensee, [letter to the NRC from Oliver D. Kingsley, Jr. (TVA) dated July 10, 1989], stated, "TVA has revised the commitment to the 1974 version of ANSI Std N45.2.9 with alternatives noted in Appendix B of the NQA Plan. These alternatives are a consolidation of the alternatives to RG 1.88 listed in tables 17D-1 and 17D-2 of TVA's Topical Report (TVA-TR75-1A), Revision 10, previously accepted by NRC."

This issue was identified as a second example of URI 390,391/89-20-03, Storage of QA Records, pending the NRC review of the submitted changes to the FSAR, CAP, and the NQAP.

B. UHI Weld and Base Metal for Unit 1

The inspector reviewed the following documentation related to welding on the Unit 1 UHI system:

WBN- NCR #1189R, and associated documents.

NDE Surface Evaluation Data Sheet Report #11552, "Visual Examination of Base Metal-Acceptable".



NDE Surface Evaluation Data Sheet Report No. 11152, "Liquid Penetrant Examination of Linear Indication in Base Material-Rejectable" and "Liquid Penetrant Examination of Lamination in Pipe Base Material-Rejectable".

NDE Evaluation Data Sheet Radiographic Report #2375, for Radiographic Test of Field Weld 1-0878-D039-15A, and Weld Repair-Acceptable.

Based on the inspector's review of the above records, it appeared that while welding two pieces of 12-inch stainless steel pipe, the welder found a small defect in the pipe. The welder appeared to have tried to remove the defect by grinding back in the base metal of the pipe. It also appeared that the weld was made without attempting to follow and remove the defect.

The rejectable condition noted above was not corrected and re-examined nor was there documentation available to accept the condition "as-is." This appeared to be contrary to the requirement specified in Process Specification 3.M.1.1.(c), Paragraph 9.2.1.a, which stated in part that laminar discontinuities over one inch or 1/2 the pipe diameter in length, and other linear indications over 3/16 inch long, are not acceptable. Paragraph 10.1 stated in part that defects shall be removed or reduced to an acceptable size and the excavation re-examined to assure the area is acceptable.

The inspector questioned the licensee as to the acceptability of the above practice of repairing weld base-metal defects without a clear NDE of the excavated area. The licensee indicated in a meeting that they would do further research in this area to resolve the inspector's concern. This item was identified as URI 390/89-20-04, Repair of Upper Head Injection Pipe Welding Defect, pending review of additional information presented by the licensee.

#### 4. Quality Assurance Program (35740)

During this inspection period the inspector conducted a review of the implementation of certain aspects of the QA Topical Report, TVA-TR75-1, Revision 10, with respect to operational activities for Unit 1. The QA Topical indicated that for the majority of activities associated with Unit 1, the requirements of Part 17.2 (operational phase) applied. Section 17.2 stated that the operational program applied to maintenance, repairs, modifications, testing, inspections, etc. associated with those systems that have been transferred to operations. The inspector reviewed table 17D-2 of the Topical Report and determined that the licensee was committed to the requirements of ANSI N18.7-1976 for the control of operational activities. This standard requires independent verification of equipment clearance activities for personnel and equipment protection. A review of hold orders 890606, 890607, 890608, 890609 for electrical work on system 64 (Safety Injection) and 890697 for instrument sensing line work on system 3 (Auxiliary Feedwater) indicated that independent verification

was not being performed. When questioned, the licensee stated that they stopped performing independent checks of clearances on May 24, 1989 and the requirement had been suspended until such time that the plant was ready to operate. This was a conscious management decision which did not appear to consider the licensee's QA commitments.

The specific chain of requirements associated with clearances is as follows:

- QA Topical Report, TVA-TR75-1, Revision 10 requires that operational activities be conducted pursuant to ANSI N18.7-1976.
- ANSI N18.7-1976 requires in section 5.2.6, "Equipment Control", that procedures which establish safe boundary require, where appropriate, independent verification of tagging boundaries.
- AI 2.12, Revision 20, "Clearance Procedure", states in paragraph 1.2 that independent checks are required for systems and conditions as required by AI 2.19, "Independent Verification".
- AI 2.19, Revision 5, states in paragraph 6.6.2 that the clearance procedure shall require independent verification for alignment, tagging, and return to service when safety-related equipment is removed from service for protection of personnel.

It should be noted that the licensee program for independent verification of clearances only applied to safety related equipment. ANSI N18.7-1976 indicates that although the standard is directed primarily toward safety-related activities, it is recommended that it be applied to other important plant equipment as well. Discussions with operations management indicated that TVA was not applying independent verification to clearances on non safety-related equipment at any of its stations.

Subsequent discussions with Operations and QA management indicated that TVA considered that Section 17.2 of the QA Topical Report did apply to work on Unit 1. However, the licensee indicated that dropping some of the requirements of the QA Topical until the plant is ready to operate was not a reduction in their quality commitment and was allowed by this QA program. The inspector informed the licensee that dropping these type of requirements is considered a reduction to their quality commitment and required a change to the QA Topical Report and NRC approval prior to implementation.

Notwithstanding the requirements to receive NRC approval to drop quality commitments, not performing independent verification of safe boundary clearances (hold orders) could endanger both personnel and equipment. Specifically, after system turnover to operations, this equipment is usually pressurized and energized and it is prudent to require the application of the operational standards to those activities even though an operating license has not been issued.

However, there were some requirements of the operational standards that might not apply. The inspectors considered it imperative that TVA determine those quality requirements that apply to WBN during this phase of plant life. Additionally, the program must ensure that other operational standards are phased in at the appropriate time to allow a smooth transition from construction to operations and include a period of time to allow monitoring prior to issuance of an operating license. The licensee indicated that a review of suspended requirements would be conducted to ensure compliance with the QA program.

The failure to implement the requirements of independent verification for clearances since May 24, 1989, as described by the examples above was identified as example 2 of Violation 390,391/89-20-02, Failure to Follow Prescribed Instructions.

#### 5. Security (81601)

The licensee held a meeting on November 14, 1989, with Region II and site NRC personnel to discuss the proposed security requirements for WBN. The identified purpose of this meeting was for the licensee to discuss their proposal on how the site would be secured prior to fuel load, with focus on the security upgrade and Unit 1 and 2 interface. The licensee outlined measures for the replacement of supplemental or existing security systems with state of the art equipment, rewrite of existing security procedures, and the use of security engineering firms to upgrade the design, engineering and procurement process. The licensee also stated that they would conform to 10 CFR 73.55 to the maximum extent possible and request exemptions if necessary with what they considered to be some potential problem areas with the proposed Unit 1 and 2 barriers.

The licensee was informed that changes to the requirements and exemptions to the 10 CFR 73.55 would be reviewed and acted on by the NRC NRR staff, once the exemption requests were formally submitted. Another meeting was scheduled for a later date to further review TVA plans.

#### 6. Action on Previous Inspection Findings (92701)

##### A. (Closed) URI 390,391/89-08-01: Calculations to Support NSSS Specified/TVA Designed systems

This specific issue involved questions associated with the design pressure for the suction piping for the SIS and charging pumps while the system is aligned in the RHR "piggy-back" supply mode. The licensee had reduced the design pressure for a section of this piping from 220 to 150 psig and there did not appear to be an adequate basis for this change.

During discussions with design engineers, the inspector requested that TVA

provide the calculations to support the design pressure. The licensee stated that they did not have the calculations, that they only had the NSSS process flow diagrams which specified design pressures for the system, and that the procurement contract required that the NSSS maintain the supporting calculations. TVA provided the inspector with portions of contract 71C60-54114-1 which invoked TVA's specification 9996, "Nuclear Steam Supply Systems for TVA Nuclear Plants (General)". Section 4.4.11.1 of this specification required a master set of records be maintained for five years after the completion of the contract unless otherwise required by applicable codes and standards. The section of the specification required the supplier to notify TVA at the end of the five years and obtain instructions for shipment of the records to TVA. This should ensure that the required calculations are available, since ANSI N45.2 requires supporting calculations be maintained as QA records.

The above discussion addressed those open items associated with the inspector's initial concern with the design pressure of the SIS and CVCS suction piping and the URI is therefore closed.

During the review of this issue the inspector learned the reason that TVA originally changed the design pressure from 220 to 150 psig. There were several cases identified on SCR-WBNMEB-8661 where design conditions between interfacing systems did not agree and discrepancies between boundaries existed. ECN #6485 was issued to perform the necessary document corrections which TVA felt were the only required corrective actions. After the documentation was changed, it was determined that the relief valves on the system were set at 220 psig and that this was not in compliance with ASME Section III-NC-7411, which requires the relief to be set at system design pressure. When TVA contacted the NSSS vendor for guidance on resetting the relief valves, they learned that their actions to reduce the system design pressure did not consider the piggy-back mode of operations which would pressurize the piping above the newly established pressure of 150 psig. CAQR WBA880381 was issued to resolve this issue. As the item is being addressed through the licensee's corrective action program, no specific additional NRC followup is necessary.

CAQR WBQ880381 also described another condition where TVA determined that, during the original design of the containment spray system, they did not incorporate the NSSS specification for the pressure on a section of piping in the containment spray system suction. Specifically, the suction piping was specified by the NSSS to be 220 psig, but TVA designed the system for 100 psig due to an error. When this was discovered, TVA considered that extensive work would be necessary to upgrade the section to 220 psig (i.e. verification of component design and re-hydrostatic testing as well as changing records and drawings). In order to leave the design at 100 psig, TVA felt that they only needed to reset the 220 psig relief valve to 100 psig since ASME Section III-NC-7411 requires the relief valves be set at system design pressure. The CAQR indicated that discussions with the NSSS vendor confirmed that the TVA-proposed action to leave the design pressure at 100 psig was acceptable. TVA discovered and documented this condition, which violated 10 CFR, Part 50, Appendix B, Criteria III, "Design Control". There was reasonable assurance that their on-going

discovery programs would have identified and corrected this item as well. This violation met the criteria specified in Section V of the NRC Enforcement Policy for not issuing a Notice of Violation and was not cited. This item was assigned item number NCV 390,391/89-20-05 for tracking.

B. (Closed) Deviation 390,391/86-18-06: Containment Sump Design

This deviation involved the location and size of the screens that protect the containment sump which is used as the supply for the LPSI and containment spray systems while in the recirculation mode of operation during an accident. The licensee's actual installation did not meet the installation described in the FSAR. The licensee response to the deviation, dated November 25, 1986, stated that TVA would revise section 6.3.2.2 of the FSAR to describe the actual installation.

The inspector reviewed the licensee's response and proposed revision to the FSAR and found that the FSAR revision accurately described the actual installation. However, during this review, the inspector questioned the licensee as to whether the results of the prototype model test would be affected by the differences. Specifically, the inspector asked whether the location and size of the screen would cause a change in vortexing for the pump, and if the outside screen would impact the structural integrity of the sump if it became clogged. The licensee requested the Norris Laboratory to re-evaluate the original test data using the actual sump design and determine if there were any differences in their original conclusions. Norris lab report #WR28-2-85-131 documented their evaluation and concluded that the original results were essentially unchanged. The inspector reviewed this report and concurred with the results. The change to the FSAR will have to be reviewed and approved by NRR. This item is considered closed and any questions that may be generated as part of the FSAR review will be resolved through the FSAR approval process.

C. (Closed) Unresolved Item 390,391/87-11-01: Qualification of Contract QC Inspectors

The following three concerns regarding qualification of contractor quality control inspectors were reviewed by the inspector:

1. Supervision waiving qualification to allow contractor inspectors to perform inspections.
2. Contractor inspectors were performing inspections with expired certification.
3. CAQRs being returned by supervisors for insufficient information, which could be interpreted as stalling the CAQR process.

The inspector reviewed the following documents to evaluate the concern and to verify what action WBN has taken to correct the condition and to prevent its recurrence.

- NRC Inspection Report 50,390,391/87-11, Section 9.
- CAQR-CHS 870057, Part A, Description of Condition.
- CAQR-CHS 870057, Part C, Remedial Corrective Action.
- CAQR-CHS 870057, Part D, Proposed Recurrence Control.
- Nuclear Quality Assurance Procedure, OMP 1025, Revision 5, Qualification and Certification of Nuclear Quality Control Inspector.
- Nuclear Quality Assurance Instruction, QMI 802.6, Site Specific Training for Quality Control Personnel.
- Three verification of Qualification, Training and Certification Records. These records include one contractor inspector.

Based on the information contained in these documents, it was determined that concerns 1 and 2 did occur. Adequate corrective action was completed by the licensee. Concern 3 did not appear to deviate from the normal CAQR review and approval process. This item is closed.

#### 8. Exit Interview (30703)

The inspection scope and findings were summarized on November 20, 1989, with those persons indicated in paragraph 1. 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>
390/89-20-01	Open	URI - Electrical Cable and Cable Tray Concerns Example 1, Paragraph 2.A Example 2, Paragraph 2.B Example 3, Paragraph 2.C
390/89-20-02 391/89-20-02	Open Open	VIO - Failure to Follow Prescribed Instructions Example 1, Paragraph 2.D Example 2, Paragraph 4
390/89-20-03 391/89-20-03	Open Open	URI - Storage of QA Records Example 1, Paragraph 3.A Example 2, Paragraph 3.A
390/89-20-04	Open	URI - Repair of UHI Pipe Welding Defect Paragraph 3.B

390/89-20-05	Closed	NCV - Calculations to Support NSSS Specified/TVA Designed Systems Paragraph 6.A
391/89-20-05	Closed	
390/89-08-01	Closed	URI - Calculations to Support NSSS Specified/TVA Designed Systems Paragraph 6.A
391/89-08-01	Closed	
390/86-18-06	Closed	DEV - Containment Sump Design Paragraph 6.B
391/86-18-06	Closed	
390/87-11-01	Closed	URI - Qualification of Contract QC Inspectors Paragraph 6.C
389/87-11-01	Closed	

#### 9. List of Acronyms and Initialisms

AFW	Auxiliary Feedwater
AI	Administrative Instruction
ANSI	American Nuclear Standards Institute
ASME	American Society of Mechanical Engineers
AWS	American Welding Society
BLN	Bellefonte Nuclear Plant
CAP	Corrective Action Program
CAQR	Condition Adverse to Quality Report
CATD	Corrective Action Tracking Document
CCRS	Computer Cable Routing System
CEP	Construction Engineering Procedure
CI	Concerned Individual
CVCS	Chemical Volume Control System
DCRM	Document Control and Records Management
DNC	Department of Nuclear Construction
DNE	Division of Nuclear Engineering
DNQA	Department of Nuclear Quality Assurance
ECN	Engineering Change Notice
ECP	Employees Concern Program
EQ	Environmental Qualification
FOS	Fabrication Operation Sheet
LOP	Life of Plant
LPSI	Low Pressure Safety Injection
MSU	Material Services Unit
NCR	NonConformance Report
NDE	Non Destructive Evaluation
NJRS	Nuclear Joint Repair System
NQAM	Nuclear Quality Assurance Manual
NQAP	Nuclear Quality Assurance Plan
NSSS	Nuclear Steam Supply System
OJT	On The Job Training
OSP	Office of Special Projects
PM	Preventive Maintenance
PSIG	Per Square Inch Gauge
QA	Quality Assurance

QCI	Quality Control Instruction
RG	Regulatory Guide
RHR	Residual Heat Removal System
SIS	Safety Injection System
UHI	Upper Head Injection
URI	Unresolved Item
VIO	Violation
WBN	Watts Bar Nuclear Plant
WBPT	Watts Bar Program Team