



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W., SUITE 3100
 ATLANTA, GEORGIA 30303

JAN 4 1980

Report Nos. 50-390/79-45 and 50-391/79-39

Licensee: Tennessee Valley Authority
 500A Chestnut Street
 Chattanooga, Tennessee 37401

Facility Name: Watts Bar Nuclear Plant

Docket Nos. 50-390 and 50-391

License Nos. CPPR-91 and CPPR-92

Inspection at Watts Bar site near Spring City, Tennessee

Inspector: M. J. Lave Co 1/3/80
 R. W. Wright Date Signed

Approved by: F. S. Cantrell 1/3/80
 F. S. Cantrell, Section Chief, RC&ES Branch Date Signed

SUMMARY

Inspection on November 29-30, 1979

Areas Inspected

This routine unannounced inspection involved 13 inspector-hours on site in the areas of site implementation and handling of nonconformance reports and conditions adverse to quality reporting.

Results

Three apparent items of noncompliance were found in the areas inspected. (Infraction - Failure to follow procedures by not documenting repetitive nonconformances using the conditions adverse to quality reporting system; Deficiency - Failure to properly evaluate and report a safety significant condition; and Infraction - Failure to take effective corrective action to prevent repeated violations of the same requirement.)

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DETAILS

1. Persons Contacted

Licensee Employees

- *H. C. Richardson, Acting Project Manager, WBNP
- *J. E. Treadway, Construction Superintendent, WBNP
- *A. W. Rodgers, QA Unit Supervisor, WBNP
- *C. O. Christopher, Assistant Construction Engineer (Civil), WBNP
- *S. Johnson, Assistant Construction Engineer (Mech.), WBNP
- *J. G. Shields, Assistant Construction Engineer, WBNP
- *J. M. Lamb, Unit Supervisor - MEU, WBNP
- *R. L. Heatherly, Unit Supervisor - QC&RU, WBNP
- W. I. Dothard, Engineer - (MEB-NLS), Knoxville

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on November 30, 1979, with those persons indicated in Paragraph 1 above. At this time the RII inspector stated that he was going to advise RII management of his findings and recommend that the licensee be cited for two items of noncompliance. These noncompliances were for failure to follow procedures (WBNP QCP-1.2 and 1.4) and for failure to report a significant condition reportable to the NRC under 10 CFR 50.55(e). Additionally, site management was informed that the missing documentation for an CAQR dated April 9, 1979, concerning Item 62AOCVCS-101 would be identified as a new unresolved item. (See paragraph 5 for details.) Subsequent review of these inspection findings indicated that effective corrective actions had not been taken to prevent repeated violations of the same requirement. The WBNP acting project manager and pertinent MEB-NLS representative were notified on December 7, 1979, of the additional item of noncompliance and the new unresolved item.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 50-390/79-34-01 and 50-391/79-29-01: Handling of CAQRs and NCRs. The subject unresolved item was closed during this inspection; however, RII followup inspection of this matter conducted this inspection (November 29-30, 1979) resulted in three items of noncompliance and one new unresolved item being identified. See paragraph 5 for details.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 5.

5. Review of NCR and CAQ Reports

a. Chronology

RII's prior inspection of the site's handling of NCRs and CAQ reporting conducted September 19-21, 1979, resulted in unresolved items 50-390/79-34-01 and 50-391/79-29-01 being identified. This unresolved item was opened because repetitive CAQRs/NCRs were found written against crafts for bypassing QC procedures and required engineering hold points in safety related systems. The prevalent cause for these deficient conditions appears to be either craft unfamiliarity with control procedures or complete disregard for QA/QC procedures by the crafts. When all of the following listed repetitive CAQRs/NCRs are considered collectively they represent a QA program breakdown in the safety related piping/welding area.

Examples of welds cut out or subassemblies cut without adherence to standard applicable procedures and inspections (cuts made without operational sheet - violation of NCM 4.1 and WBNP 4.10 App. I, bypassing engineering hold points).

*CAQ M23	07/26/78	Two valves disassembled by crafts w/o documentation
CAQ M27 **(M-23)	11/16/78	Subassembly cut in three pieces as requested by COS but bypassed four engr. hold points.
CAQ M32	01/16/79	Bypassed engr. hold pts. on COS & cut wrong assemblies
CAQ M34 **(M27, M32, M33)	02/8/79	Weld cut out w/o COS
CAQ M33 **(M27)	02/9/79	Subassembly cut w/o engr. authorization & bypassing engr. supervision
CAQ (Not Processed) **(M-23, M27)	04/9/79	Subassembly cut in 3 pieces as requested by COS bypassing 4 engr. hold pts.
NCR 1560R	05/23/79	Shop welds Nos. 7 & 8 cut w/o use of COS
NCR 1636R	06/5/79	Weld No. 14 cut w/o use of COS
NCR 1678R	07/9/79	Subassembly cut as requested by COS but bypassed all engr. & welding hold pts.

*NCR 1708 07/17/79 ASME code stamp plate removed by craft w/o COS to authorize work.

Examples of welding initiated and/or completed in the field without adherence to procedures (welds initiated and/or completed without field weld operation sheet - violation of NCM 4.1, bypassing QC & ANI)

*CAQ M18 05/13/78 Steamfitter welded temporary support angle to ASME Class II Feedwater piping (2 instances).

*CAQ M20 05/20/78 Crafts tack welded stainless steel plate to Class I piping subassembly

NCR 1634R 06/5/79 Weld No. 9 initiated & completed w/o adherence to procedures

NCR 1635R 06/5/79 Weld No. 14 initiated & completed w/o adherence to procedures

NCR 1670R 07/5/79 Stress bead applied to field weld w/o FWOS to authorize or document work-bypassing QC procedures

CAQ M37 07/5/79 Welding done on 4 FWOS prior to hold pts. for fit-up, pre-heat temperature, & release for welding being signed off.
**(M27, M32)

*NCR 1771R 08/14/79 COS used to weld stainless steel tag to subassembly instead of FWOS. Also COS not sent to ANI for holdpoint review

*NCR 1647R1 08/21/79 3 field welds welded with wrong filler metal

NCR 1803R 08/25/79 2 field welds made w/o FWOS to authorize & document work - welds made by passing all QC procedures

*Related - indicate craft unfamiliarity/and/or indifference toward QC procedures.

**Denotes repetitive CAQR's identified on that particular CAQR.

On September 25, 1979, TVA was requested by RII to initiate a corporate audit for review of CAQR's and NCR's to determine if the site was handling them in accordance with applicable licensee procedures. RII pursued this issue further this inspection the results of which are discussed below.

b. Areas Inspected

The RII inspector conducted discussions with and examined records of the site training officer, QC&RU, and construction superintendent office personnel to ascertain if training had indeed been implemented as suggested to prevent recurrence of the above listed noncompliances. Discussion and sufficient documentary evidence was available to conclude that training when needed was being given.

Audit No. WB-G-79-16 (10/4-11/79) entitled "Control of Nonconforming Materials & Conditions Adverse to Quality and Corrective Actions", conducted by site QA personnel was examined. This audit initiated by TVA memorandum CAQ 79 1002 005 disclosed two deficiencies in this area but did not address whether appropriate "significant" evaluations were being determined or whether any "negative attitude" existed between engineering, quality control, and/or craft supervision as requested by the subject memorandum. Discussions with the audit personnel revealed that although not documented in the audit no "negative attitude" was uncovered.

The RII inspector conducted further CAQR and NCR review and discovered evidence that CAQRs originated by inspectors were being voided or not processed in that written attached memos directed the inspector to rewrite an NCR on the subject noncompliance in lieu of the CAQR. QC&RU records examined revealed that NCRs had indeed been written to cover all of the above voided or not processed CAQRs with one exception. Unprocessed CAQR dated April 9, 1979, concerning Unit 1, Item 62A-CVCS-101 and cutting operation sheet 1-62-F-10-21 did not have a corresponding NCR written on file with QC&RU.

The RII inspector conducted discussions with several mechanical engineering unit inspection personnel who initiate NCRs and CAQRs. Each person was asked their opinion on when an NCR vs CAQR should be written. All inspectors appeared to be knowledgeable of the difference and possessed good understanding of the site's QA/QC procedures WBNP-QCP 1.2 and 1.4. A somewhat negative attitude did surface during these discussions in that some inspectors believed the policy of returning CAQRs to be rewritten as NCRs just created more work for them and discouraged them from using the CAQ reporting system. Additionally, some inspection personnel were critical in that they felt that management did not take effective measures against certain craftsmen and foremen who were apparent repeated violators of proceeding with work for which they had no prior engineering authorization.

c. Conclusions

Further RII investigation into the site's handling of NCRs and CAQRs did not change the inspector's determination on the findings he identified during his last inspection. In fact, this inspection has reinforced those findings.

WBNP procedure QCP 1.2, paragraph 2.0, states in part, "nonconformances determined to be repetitive are documented in accordance with WBNP-QCP 1.4". NCR's 1560R, 1636R, 1678R, 1708R, 1634R, 1635R, 1670R, 1771R, 1647R1, 1803R appear repetitive in nature in that they illustrate instances where crafts have reportedly bypassed engineering hold points. This failure to follow procedures i.e. failure to document repetitive nonconformances using the CAQ reporting system has been identified as infraction 50-390/79-45-01 and 50-391/79-39-01.

When all of the above listed repetitive CAQRs and NCRs (paragraph 5a.) are considered collectively they represent a QA program breakdown in the safety related piping/welding area. The RII inspector identified this apparent craft indifference, disregard or unfamiliarity with QA/QC procedures as constituting a breakdown in the quality assurance program that should have been reported to the NRC under 10 CFR 50.55(e). This item has been identified as deficiency 50-390/79-45-02 and 50-391/79-39-02.

RII inspector identified the unprocessed CAQR dated April 9, 1979, discussed in paragraph 5b. as unresolved item 50-390/79-45-04

Subsequent review of these inspection findings indicated that effective corrective action had not been taken to prevent repeated violations of the same requirement (bypassing of engineering hold points). Although craft training was administered to prevent recurrence, the training given was apparently inadequate and/or not the root cause of the repetitive noncompliance problem. This item has been identified as infraction 50-390/79-45-03 and 50-391/79-39-03.

The WBNP acting project manager and pertinent MEB-NLS representative were subsequently notified of these three items of noncompliance and one new unresolved item by telephone on December 7, 1979.