

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303
MAY 15 1975

In Reply Refer To:
IE:II:VLB
50-390/75-5
50-391/75-5

Tennessee Valley Authority
ATTN: Mr. J. E. Watson
Manager of Power
818 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

This refers to the inspection conducted by Mr. V. L. Brownlee of this office on April 30 - May 2, 1975, of activities authorized by NRC Construction Permit Nos. CPPR-91 and CPPR-92 for the Watts Bar Nuclear Plants, Units 1 and 2 facilities, and to the discussion of our findings held with Mr. J. C. Killian at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously reported unresolved items. These are identified in Section IV of the summary of the enclosed report.

Three new unresolved items resulted from this inspection and are identified in Section III of the summary of the enclosed report. These items will be examined during subsequent inspections.

A deficiency identified through your internal audit program is shown in the details of the enclosed inspection report. The appropriate report was made and corrective action initiated or completed and no additional information is needed for this item at this time.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter



MAY 15 1975

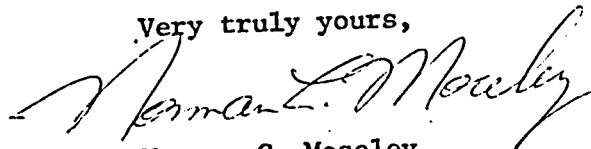
Tennessee Valley Authority

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and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



Norman C. Moseley
Director

Enclosure:

IE Inspection Report Nos.
50-390/75-5 and 50-391/75-5

cc w/encl:

Mr. J. E. Gilleland

Letter to Tennessee Valley Authority from N. C. Moseley
dated **MAY 15 1975** and IE Rpt. Nos. 50-390/75-5
and 50-391/75-5

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IE:HQ (5)

Office of Standards Development

Division of Reactor Licensing (13)

→ Central Files

Mr. J. E. Gilleland, TVA

*PDR

*Local PDR

*NSIC

*TIC

*State

*To be dispatched at a later date.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report Nos. 50-390/75-5 and 50-391/75-5

Licensee: Tennessee Valley Authority
818 Power Building
Chattanooga, Tennessee 27401

Facility Name: Watts Bar Nuclear Plant, Units 1 and 2
Docket Nos.: 50-390 and 50-391
License Nos.: CPPR-91 and CPPR-92
Category: A2/A2

Location: Spring City, Tennessee

Type of License: W PWR, 1160 Mwe

Type of Inspection: Routine, Announced, Construction

Dates of Inspection: April 30 - May 2, 1975

Dates of Previous Inspection: April 8-11, 1975

Principal Inspector: V. L. Brownlee, Reactor Inspector
Facilities Section
Facilities Construction Branch

Accompanying Inspectors: None

Other Accompanying Personnel: None

Principal Inspector: *V. L. Brownlee* 5/14/75
V. L. Brownlee, Reactor Inspector Date
Facilities Section
Facilities Construction Branch

Reviewed By: *J. C. Bryant* 5/14/75
J. C. Bryant, Senior Inspector Date
Facilities Section
Facilities Construction Branch



SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

None

III. New Unresolved Items

75-5/1 Procedure Development

TVA was apprised of IE:II concerns regarding the timeliness of formal procedure development and implementation. TVA agreed to examine this area of concern and implement changes as required. (Details I, paragraphs 4 and 5)

The following items are identified for purposes of followup and were not a part of this inspection:

75-5/2 IE Bulletin No. 75-03, "Asco Solenoid Valves."

75-5/3 IE Bulletin No. 75-05, "Operability of Category I Hydraulic Shock and Sway Suppressors."

IV. Status of Previously Reported Unresolved Items

75-3/1 Regulatory Operations Bulletins and Licensee Responses

Discussions with responsible QA and technical personnel and review of equipment lists, purchase documents and file correspondence confirm that the investigative actions, conclusions and followup actions identified in the licensee's letters of response are being implemented for the following ROB's and these items are closed: (Details I, paragraph 2)

ROB 73-1 - "Faulty Overcurrent Trip Delay Device in Circuit Breakers for Engineered Safety Systems"

ROB 73-2 - "Malfunction of Containment Purge Supply Valve Switch"

ROB 74-1 - "Walworth and Darling Valve Deficiencies"

ROB 74-8 - "Deficiency in ITE Molded Case Circuit Breakers, Type HE-3"

- ROB 74-12 - "Incorrect Coils in Westinghouse Type SG Relays"
- ROB 74-13 - "Improper Factory Wiring on General Electric Motor Control Centers"
- ROB 74-15 - "Misapplication of Cutler-Hammer Three Position Maintained Switch Model No. 10250T"

The following ROB's remain open for further action by TVA:
(Details I, paragraph 2)

- ROB 74-6 - "Defective Westinghouse Type W-2 Control Switch Component"
- ROB 74-9 - "Deficiency in General Electric Model 4 KV Magneto-Blast Circuit Breakers"
- ROB 74-11 - "Improper Wiring on Safety Injection Logic"

74-5/1 Valve Wall Thickness Verification Program

TVA (DED) will submit a valve wall thickness program that meets Region II letters of June 30, 1972, and February 16, 1973. This item remains open.

V. Design Changes

None

VI. Unusual Occurrences

None

VII. Other Significant Findings

None

VIII. Management Interview

The inspector met with J. C. Killian, Project Manager; members of the site staff; and QA representatives of DED, Knoxville. The licensee was apprised of the areas inspected and findings relative to the status of previously reported unresolved item 75-3/1 and concerning design control by field. Considerable discussion was held regarding the apparent lack of timely development and implementation of formal control procedures commensurate with the status of work. TVA agreed to consider this matter which will be reviewed during a subsequent inspection. (Details I, paragraph 6)

DETAILS I

Prepared by: V. L. Brownlee
V. L. Brownlee, Reactor Inspector
Facilities Section
Facilities Construction Branch

5/12/75
Date

Dates of Inspection: April 30 - May 2, 1975

Reviewed by: J. C. Bryant
J. C. Bryant, Senior Inspector
Facilities Section
Facilities Construction Branch

5/13/75
Date

All information in Details I applies equally to Units 1 and 2
except where identified with a specific reactor.

1. Individuals Contacted

Tennessee Valley Authority (TVA)

a. Site

J. C. Killian - Project Manager
T. B. Northern, Jr. - Construction Engineer
L. C. Northard - Supervisor, Site QA Unit, DEC Staff
J. M. Lamb - Supervisor, Mechanical Engineering Unit
J. G. Shields - Construction Engineer
R. L. Heatherly - Supervisor, QC and Records Unit
J. C. Cofield - Supervisor, Materials Engineering Unit
J. H. Perdue - Supervisor, Electrical Engineering Unit
S. Johnson - Principal Mechanical Engineer
L. J. Johnson - Mechanical Engineer, NSS, Equipment Handling

b. Knoxville

T. V. Abbatiello - DED - QA
J. F. Cox - Engineer, Nuclear Licensing
L. E. Brock - Engineer, Nuclear Steam Generation
T. E. Haynes - Engineer, Nuclear Steam Generation
K. B. Akers - Design Engineer, Mechanical
G. Nyut - Design Engineer, Mechanical
H. E. McConnel - Lead Design Engineer, Electrical
G. W. Daniels - Design Engineer, Electrical
H. B. Rankin - Engineer, Projects

2. Regulatory Operations Bulletins (ROB) and Licensee Responses
(Reference IE Rpt. 75-3)

a. ROB 73-1 - "Faulty Overcurrent Trip Delay Device in Circuit Breakers for Engineered Safety Systems"

Discussions with the responsible design engineer confirm that there are no trip delay devices of the type identified in the ROB to be installed in any safety related system. IE:II has no further questions regarding this matter.

b. ROB 73-2 - "Malfunction of Containment Purge Supply Valve Switch"

Discussions with design personnel and review of one line diagrams confirm that the control circuits are electrically independent of each valve and each valve is controlled by a separate switch. IE:II has no further questions regarding this matter.

c. ROB 74-1 - "Walworth and Darling Valve Deficiencies"

Discussions with the responsible NSSS and BOP mechanical engineers and review of valve lists and purchase documents confirm that valves similar to those mentioned in the ROB are not to be installed in the facilities. IE:II has no further questions regarding this matter.

d. ROB 74-6 - "Defective Westinghouse Type W-2 Control Switch Component"

TVA has required Westinghouse to provide assurance that all switches and kits be serviced prior to shipment. Westinghouse is to provide a schedule and procedure for accomplishing the inspection. This item remains open.

e. ROB 74-8 - "Deficiency in ITE Molded Case Circuit Breakers, Type HE-3"

Discussions with project engineers confirmed that no molded case circuit breakers of the type identified in the ROB are to be used in safety related systems. IE:II has no further questions regarding this matter.

f. ROB 74-9 - "Deficiency in General Electric Model 4KV Magne-Blast Circuit Breakers"

Design engineers confirmed that GE M36 switchgear is on order for Watts Bar. GE has not confirmed whether or not the problem identified in the ROB exists on the circuit breakers being supplied. This item remains open until confirmation is received or until corrective action is completed.

g. ROB 74-11 - "Improper Wiring on Safety Injection Logic"

TVA has requested that Westinghouse determine applicability of subject ROB to equipment being supplied to site. This item remains open.

h. ROB 74-12 - "Incorrect Coils in Westinghouse Type SG Relays"

Westinghouse letter of response to TVA dated December 12, 1974, reports that all SG relay coils were resistance checked and no defects reported. IE:II has no further questions regarding this matter.

i. ROB 74-13 - "Improper Factory Wiring on General Electric Motor Control Centers"

Discussions with design engineers confirmed that no motor control centers of the type described are being utilized. IE:II has no further questions regarding this matter.

j. ROB 74-15 - "Misapplication of Cutler-Hammer Three Position Maintained Switch Model No. 10250T"

Cutler-Hammer has modified the switch. The modified switch will be identified as series A3 and appropriately stamped. Review of TVA purchase requisitions for Watts Bar 1 and 2 for Class I control equipment confirms that TVA has ordered the modified switch for initial installation. Delivery will commence subsequent to August 1975. IE:II has no further questions regarding this matter.

3. Site Training (Reference IE Rpt. 75-3)

Procedure DEC-QCP-1.11, "QA Training Program," has been revised. The procedure accurately describes the present site QA training program. The procedure has received site approval and is being implemented as written; however, the procedure has not received full approval and signoff by DEC and OEDC.

The matters of management review, evaluation and timely development and implementation of control procedures that are commensurate with the status of work was discussed at length at the exit interview.

4. Design Control Field

a. Field Change Request (FCR)

QC Procedure DEC-QCP-1.13, Rev. 0, "Preparation and Documentation of Field Change Requests" is applicable to all change requests

regarding DED approved TVA or manufacturer drawings. The procedure delineates field activities relative to all requests by the project to either facilitate construction, to correct a drawing discrepancy or for additional design information. All changes to these documents must be approved by DED before work is started on the change.

The inspector performed a selective examination within the civil and mechanical areas to determine if the procedure was being implemented as written and provided adequate control.

The inspection revealed that, in those areas examined, the QC & Records, civil, and mechanical unit personnel were knowledgeable of the requirements and system as implemented. Unit records were checked against the QC & Records files and drawing stick files. No nonconformances or unresolved matters were identified.

b. Engineering Change Notices (ECN)

QC Procedure DEC-QCP-1.9, Rev. 0, "Disposition and Documentation of Engineering Change Notices," is applicable to all ECN's for permanent plant features. The ECN is the document utilized by DED to provide DEC with the scope of a design change.

A selective examination was performed to determine if the procedure was being implemented and if it provided adequate control.

The inspection revealed that in those areas examined the ECN coordinator and other associated personnel were knowledgeable of the procedure requirements and system as implemented. The inspector identified several areas of concern which would require further evaluation and possible corrective action by TVA. TVA site personnel committed to evaluate the system and implement corrective action as required.

The listed items below identify the areas of concern which were generated during the inspection and will be included in the scope of future inspections for followup:

- (1) Closing of ECN's - There appears to be no effective feedback from site to DED when there is conflict between completion of closeout information. This was evidenced by several old ECN's not being closed by site, although the closure sheet had been issued by DED. The ECN coordinator has maintained a complete listing of these outstanding items and is preparing correspondence to DED for resolution.

- (2) Record Retention - Closed ECN's are filed and maintained by the ECN Coordinator. Record retention at this point provides an inconsistency in that the print room ledger, which is maintained by the QC & Records Unit, cannot be closed out. Site personnel explained that ECN record files were being retained by the ECN Coordinator since no requirements have been established addressing records retention location and responsibility for these documents.

5. Development and Implementation of a Records Retention System

TVA has been working on this matter since September 1973 as indicated by DEC Site QA Audit No. DEC-QCP-1.8-75-1, dated January 7, 1975. This report identified to TVA management that a program for a records retention system had not received the level of attention and effort commensurate with its importance and, as a result, the applicant was not meeting the requirements of 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records."

TVA has developed Procedure DEC-QCP-1.8 for the purpose of controlling record retention. This procedure has received site approval but lacks DEC and OEDC review and signature for final approval.