



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N.W. SUITE 1217
ATLANTA, GEORGIA 30303

AUG 19 1977

In Reply Refer To:
RII:VLB
50-390/77-9
50-391/77-9

Tennessee Valley Authority
Attn: Mr. Godwin Williams, Jr.
Manager of Power
830 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

This refers to the inspection conducted by Mr. V. L. Brownlee of this office on July 20-22, 1977, of activities authorized by NRC Construction Permit Nos. CPPR-91 and CPPR-92 for the Watts Bar Nuclear Plant, Unit 1 and 2 facilities, and to the discussion of our findings held with Mr. T. B. Northern, Jr. at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the attached inspection report. Within these areas, the inspection consisted of selective examinations 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 identified inspection findings. These are discussed in the attached inspection report.

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 and the attached 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

AUG 19 1977

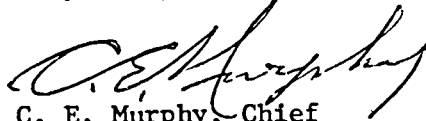
Tennessee Valley Authority

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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 attached 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,



C. E. Murphy, Chief
Reactor Construction and
Engineering Support Branch

Attachment:

RII Inspection Report Nos.
50-390/77-9 and 50-391/77-9

cc: Mr. J. E. Gilleland
Assistant Manager of Power
831 Power Building
Chattanooga, Tennessee 37401

Mr. T. B. Northern, Jr.
Project Manager
Watts Bar Nuclear Plant
P. O. Box 2000
Spring City, Tennessee 37381

Mr. Stan Duhan
400 Commerce Street
E4D112
Knoxville, Tennessee 37902



UNITED STATES
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Report Nos.: 50-390/77-9 and 50-391/77-9

Docket Nos.: 50-390 and 50-391 License Nos.: CPPR-91 and CPPR-92

Categories: A2, A2

Licensee: Tennessee Valley Authority
830 Power Building
Chattanooga, Tennessee 37401

Facility Name: Watts Bar Nuclear Plant, Units 1 and 2

Inspection at: Watts Bar Dam, Tennessee

Inspection conducted: July 20-22, 1977

Inspector: V. L. Brownlee

Reviewed by: C. E. Murphy
C. E. Murphy, Chief
Reactor Construction and Engineering Support Branch

8/17/77
Date

Inspection Summary

Inspection on July 20-22, 1977 (Report Nos. 50-390/77-9 and 50-391/77-9)

Areas Inspected: Licensee action on previously identified unresolved items; concrete placement at the intake pumping station; refueling and primary storage water tank piping tunnels; design control; Lumbermans Mutual Casualty Company contract; AR Relays; Materials Consultants International contract. The inspection involved 18 inspector-hours on the site by one NRC inspector.

Results: Of the seven areas examined there were no items of noncompliance identified.

DETAILS

Prepared by:

J. C. Bryant for
V. L. Brownlee, Principal Inspector
Projects Section
Reactor Construction and Engineering
Support Branch

8/12/77
Date

Dates of Inspection: July 20-22, 1977

Reviewed by:

J. C. Bryant
J. C. Bryant, Chief
Projects Section
Reactor Construction and Engineering
Support Branch

8/12/77
Date

1. Persons Contacted

Tennessee Valley Authority (TVA)

- *T. B. Northern, Project Manager
- *A. W. Rogers, Supervisor, QA Unit
- *J. G. Shields, Assistant Construction Engineer
- *R. L. Heatherly, Supervisor, QC&R Unit
- J. R. Fifrick, QA Unit
- *J. S. Colley, ENDES QEB
- *J. M. Lamb, Supervisor, Mechanical Engineering Unit
- L. C. Northard, Jr., Supervisor, Welding and NDE Unit
- *J. C. Cofield, Supervisor Materials Engineering Unit
- N. C. Moseley, Jr., Mechanical Engineer
- *T. W. Hayes, Supervisor, Instrumentation Electrical Unit
- D. K. Hensley, Materials QC Inspector

The inspector also talked with and interviewed 12 other licensee employees including members of the engineering units, welders, QA personnel, QC inspectors, four foremen and four crew members.

*Denotes those attending the exit interview.

2. Licensee Actions on Previous Inspection Findings

(Open) Unresolved Item (76-10/3): Weld Repair Requirements -
Inconsistencies Between Contractural and Procedural Requirements
(Units 1 and 2)

The inspector held discussions with the Design QA Engineer relative to this matter. CB&I has submitted draft revisions to the CB&I QA manual which, when implemented, should resolve the inconsistencies

between TVA Specification 1440 and the CB&I QA Manual. The changes have been reviewed and accepted by the Civil Engineering Branch, Mechanical Engineering Branch and Quality Engineering Branch.

The inspector informed the Design QA Engineer that this matter would remain open until the revisions are made to the QA Manual and RII has reviewed the changes.

(Closed) Unresolved Item (390/77-4U1 and 391/77-4U1): Essential Raw Cooling Water (ERCW) Discharge Pipeline (10 CFR 50.55(e))

TVA submitted the final Construction Deficiency Report on July 28, 1977. The report was reviewed and found to be acceptable by RII.

The inspector held discussions with the Design QA Engineer and the responsible field engineer. All responsible personnel are knowledgeable of the matter and the affected area of the pipeline is in a hold category until final drawings are received from Design. This matter is receiving adequate attention and RII has no further questions.

(Open) Unresolved Item (390/77-4U2): Safety Injection Pump Motor - 1A (10 CFR 50.55(e))

The inspector held discussions with the Design QA Engineer and the responsible field engineer relative to this matter.

The problem is one of shorted internal heater windings. Westinghouse has agreed to repair the motors offsite. TVA will remove the motors. Westinghouse is responsible for shipment and repair. TVA was informed that this item would be closed upon receipt of the final Construction Deficiency Report.

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in paragraph 6.

4. Independent Inspection Effort

a. Lumbermans Mutual Casualty Company (Lumbermans) Contract (Units 1 and 2)

Lumbermans notified TVA that their contract would be terminated as of September 10, 1977.

The inspector held discussions with the site Project Manager, Supervisor of the Welding and NDE Unit, and the Authorized Inspector. It is the inspector's understanding that Lumbermans is canceling all direct government contracts and will not accept future government contracts. TVA is aggressively attempting to replace the insurance agent in a timely manner.

b. Materials Consultants International (MCI) Contract
(Units 1 and 2)

TVA was notified by MCI that MCI was going out of business and the TVA contract for radiography services would be terminated as of September 1, 1977.

The inspector held discussions with the site Project Manager and Supervisor of the Welding and NDE Unit. TVA is presently evaluating its options and expects an early decision as to the course of action.

c. Concrete

The inspector observed prepour preparations, QC inspection, and placement activities for a pipe kicker support off the intake pumping station. The concrete was 5000 AFW 3/4 mix.

Prepour preparation was adequate, pour card signed off and QC testing of mix temperature, air and slump were made in accordance with accepted practice and the concreting QA/QC program requirements.

The inspector observed the concreting operations between 7-9 pm on the swing shift on July 21, 1977.

d. Refueling and Primary Storage Water Tank Piping Tunnel
(Unit 1)

The inspector examined the tunnel base slab, walls and rebar spacing. Discussions with the responsible field engineer and review of the applicable drawings verified that the tunnel base slab, walls and rebar spacing are in accordance with the revised drawings.

No items of noncompliance were identified.

5. Partial Mid-term Construction Permit QA Inspection (Units 1 and 2)

The inspector performed a review and evaluation of the licensee's site design control program. WBNP-QCP 1.13, "Preparation and documentation of Field Change Requests," is the controlling procedure.

The inspector reviewed the procedure and selected 10 field change requests from the civil unit to verify procedure implementation. The inspector checked the civil unit files against the QC records room master files and the master print room drawings. The Field Change Requests (FCR) were filled out properly; unit files and the QC records room files were in order and the master print room drawings were either noted or updated to reflect the FCR changes.

No items of noncompliance were identified.

6. AR Relays

On July 8, 1977 Westinghouse (W) notified TVA that a significant number of subject type relays manufactured at the W Beaver Division and utilized in the solid state protection system panels would not pass the locked closed tests. The responsible Design QA Engineer notified RII of the problem on July 8, 1977.

Discussions with the Design QA Engineer and the site Instrumentation and Control Unit Supervisor and review of TVA internal correspondence verified that the matter is receiving adequate attention in accordance with established procedures. TVA committed to survey other safety-related systems to determine if the subject type relays are utilized. This matter is identified as an Unresolved Item (390/77-9U1 and 391/77-9U1) and a Construction Deficiency Report will be filed.

7. Management Interview

The inspector met with the licensee representatives denoted in paragraph 1 at the conclusion of the inspection on July 22, 1977. The inspector summarized the scope and findings of the inspection as follows: Licensee action on previously identified unresolved items; new unresolved item; concrete; pipe tunnels; design control; and the Lumbermens and MCI Contracts.