



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

Central File
50-390
391

MAR 21 1978

In Reply Refer To:
RII:BRC
50-390/78-6
50-391/78-5

Tennessee Valley Authority
Attn: Mr. N. B. Hughes
Manager of Power
830 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

This refers to the inspection conducted by Mr. B. R. Crowley of this office on February 22-24, 1978, of activities authorized by NRC Construction Permit Nos. CPPR-91 and CPPR-92 for the Watts Bar 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 enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

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

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 enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

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MAR 21 1976

Tennessee Valley Authority

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

Sincerely,



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

Enclosure: Inspection Report Nos.
50-390/78-6 and 50-391/78-5

cc w/encl:
Mr. J. E. Gilleland
Assistant Manager of Power
830 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. C. S. Walker
400 Commerce Street
W9D199
Knoxville, Tennessee 37902



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

Report Nos.: 50-390/78-6 and 50-391/78-5

Docket Nos.: 50-390 and 50-391

License Nos.: CPPR-91 and CPPR-92

Categories: A3 and 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: February 22-24, 1978

Inspectors: B. R. Crowley
T. E. Conlon

Reviewed by:

T. E. Conlon

T. E. Conlon, Chief

Engineering Support Section No. 2

Reactor Construction and Engineering Support Branch

3/15/78
Date

Inspection Summary

Inspection on February 22-24, 1978 (Report Nos. 50-390/78-6 and 50-391/78-5)

Areas Inspected: Routine unannounced inspection of containment steel structures and supports (Unit 2), site status and suitability for independent NDE study. The inspection involved 28 inspector-hours on site by two NRC inspectors.

Results: No items of noncompliance or deviations were identified.

DETAILS I

Prepared by: B. R. Crowley
B. R. Crowley, Metallurgical Engineer
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

3/14/78
Date

Dates of Inspection: February 22-24, 1978

Reviewed by: T. E. Conlon
T. E. Conlon, Chief
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

3/15/78
Date

1. Persons Contacted

a. Tennessee Valley Authority (TVA)

*T. B. Northern, Jr., Project Manager
*H. C. Richardson, Construction Engineer
*L. C. Northard, Jr., Supervisor, Welding and NDE
*A. W. Rogers, Site QA Supervisor
*J. M. Lamb, Supervisor, Mechanical Engineering
*J. S. Colley, ENDES, QA Engineer
L. J. Johnson, Mechanical Engineer
J. A. Nicholls, Civil Engineer

b. Contractor Organizations

Pittsburgh Des Moines Steel Company (PDM)

H. R. Chandler, Site QA Manager

Chicago Bridge and Iron Company (CB&I)

G. Rowe, QA Engineer

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

Actions on previous findings were not examined during this inspection.

3. Unresolved Items

No unresolved items were identified during this inspection.

4. Independent Inspection Effort

The site (Units 1 and 2) was surveyed to determine the suitability for conducting an independent radiography study program by NRC. The study would consist of inspection of a selected sample of various types of weld joints, previously inspected and accepted by the licensee, by an independent contractor under contract to the NRC. The purpose of the survey was to determine the availability of the various types of welds needed for the study and to discuss the study program with the licensee.

The survey revealed that the types of welds needed for the study are available at the Watts Bar site. Site management gave verbal concurrence to conduct the study at Watts Bar.

5. Containment (Steel Structures and Supports) - Review of Quality Records (Unit 2)

The inspector reviewed the quality records described below relative to containment steel structures and equipment supports to ascertain whether these records reflected work consistent with NRC requirements and SAR commitments.

a. Containment Structural Steel

The containment was fabricated and installed in accordance with the ASME Boiler and Pressure Vessel Code, Section III, 1971 Edition with Addenda thru the Winter of 1971 as implemented by TVA Specification, "Structural Steel Containment Vessels For The Reactor Building at Watts Bar Nuclear Plant Units 1 and 2" and CB&I QA Manual, "Nuclear QA Manual For ASME Section III Products, Division 4, Construction."

- (1) "Shop Release For Shipment Checklists," which covers receipt inspection and verification that all material requirements have been satisfied, were reviewed for the following containment material:

MK.90-1: Shell plate serial Nos. 11, 12, 13, 14, 15 and 16

MK.413-1: Stiffener plate serial Nos. 1 thru 10

MK.402-1: Roof plate serial No. 1

MK.98-2: Shell plate serial Nos. 1, 3, 5, 6, 7 and 9

MK.206-3: Shell plate serial No. 1

- (2) The following shell dimensional checks were reviewed and compared to the requirements of CB&I procedure DCP 72-4333/4, "Dimensional Control Procedure":

"Shell Dimensional Checks"
(Final Diameter)
Rings 1 thru 10

"Shell Dimensional Checks"
Vertical (Plumb)
For Height of Ice Condenser
Rings 5 thru 10

"Final Dimensional Checks, Penetrations"
Penetrations: X-1, X-6, X-7, X-37 and X-55

- (3) Individual Training records for two CB&I inspection personnel were reviewed.

b. Equipment Support Embedments

The following receipt inspection and material certification records for steam generator snubber anchor embedments MK Nos. 2SA1R-3, 2SA1R-4, 2SALL-4, and 2SALL-3 were reviewed and compared with the requirements of TVA Specification 2274, "Structural Steel Reactor Coolant System Supports and Anchor Bolts and Embedments for Watts Bar Units 1 and 2."

TVA 209 #WBNP 77-4740
TVA QC Checklist and Shipping Release #45
TVA 209 #WBNP 77-5514
TVA QC Checklist and Shipping Release #48

In the areas inspected, no items of noncompliance or deviations were identified.

6. Exit Interview

The inspectors met with the licensee representatives, denoted in paragraph 1, at the conclusion of the inspection and summarized the scope and findings of the inspection. The independent NDE study was discussed in detail.