



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

Report Nos.: 50-413/84-81 and 50-414/84-35

Licensee: Duke Power Company
422 South Church Street
Charlotte, NC 28242

Docket Nos.: 50-413 and 50-414

License Nos.: NPF-24 and CPPR-117

Facility Name: Catawba 1 and 2

Inspection Dates: July 17-19, 1984

Inspection at Catawba site near Rock Hill, South Carolina

Inspector: J. J. Blake
N. Economos

8/2/84
Date Signed

Approved by: J. J. Blake
J. J. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

8/2/84
Date Signed

SUMMARY

Areas Inspected:

This routine, unannounced inspection involved 24 inspector-hours on site in the areas of review of safety-related structural steel and supports, observation of work activities and review of quality records; containment structural steel welding - review of quality records; safety-related structures welding - observation of work activities and, review of quality records.

Results:

No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *T. B. Bright, Construction Engineering Manager
- D. Mason, QA Engineer, Civil
- B. Gillespie, QA Welding NDE
- *H. L. Atkins, QA Engineer Welding NDE
- L. Adams, QA Mechanical

Other licensee employees contacted included construction craftsmen, technicians, and office personnel.

NRC Resident Inspector

P. H. Skinner

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on July 19, 1984, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection finding listed below.

(Open) Unresolved Item 50-414/84-35-01 Boric Acid Tank S/N RCN-244 incomplete field weld records, paragraph 8.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 8.

5. Safety-Related Structures Outside Containment (Structural Steel & Supports Unit 2)

a. Observation of Work and Work Activities (48063)

Work activities in this area are complete. As an alternative the inspector selected the below listed completed and accepted structure for a review and evaluation of material quality and QA/QC fabrication

records, to determine whether applicable requirements had been met in the following areas: receipt inspection and storage, installation/erection, use of specified material and components, testing and NDE, QC inspections, utilization of qualified NDE personnel and, calibration and use of proper test equipment as applicable.

<u>Structure</u>	<u>Drawing</u>	<u>Applicable Code</u>
Boron Recycle Holdup Tank S/N RCN-243 "A"	CN 1200-5.2	ASME III ND, 74S75

The tank was fabricated on-site by Richmond Engineering Company (RECO) in 1979 to DPC Specification CN 1325-01 Revision 4.

Receipt inspection was performed on August 3, 1981, and subsequently the tank was located inside the auxiliary building on elevation 543 near columns NN-QQ 53-55. Other documents reviewed included Forms M-9D Process Control for Installation and M-10A Process Control and Inspection of Torque Tensioning of Bolts and Studs.

b. Review of Quality Records (48066)

RECO's quality records for the erection of the Reactor Makeup Water Storage Tank (Tank No. C-1856) were reviewed to determine whether these records reflected work accomplishment consistent with NRC requirements and SAR commitments. (See paragraph a. for applicable codes and specifications.) Material records, including material certification records, vendor manufacturing and inspection certifications, and receipt inspection reports were reviewed. The inspector examined installation/erection records to determine if records reflected compliance with construction/erection specifications. Inspection records were examined for completeness, legibility and retrievability. Inspection personnel qualification records were examined to determine if they were current and reflected adequate qualifications for activities performed.

Within the areas inspected no violations or deviations were identified.

6. Containment (Structural Steel Welding) Review of Quality Records, Unit 2 (55055)

Field fabrication and material quality records of major equipment supports within containment (where welding, testing, and inspection (QC) activities were complete) were selected for review and evaluation. Components selected were identified as follows:

- a. Pressurizer Lateral Support - Boxing Plates
- b. Steam Generators A&D Lower Support
- c. Reactor Vessel Support Keepers

Welds for which records were selected for review to verify conformance with established procedures, applicable code, ASME Section III (74576) and Regulatory requirements were as follows:

<u>Component</u>	<u>Weld</u>	<u>Drawing No.</u>
Pzr. Lower	LP-28	CNFO 1438.31-59
Lateral Support	LP-71	CNFO 1438.31-59
	LP-72	CNFO 1438.31-59
S/G Lower Support	2-L4U	CNFO 1438.31-34A
	2-L1Y	
	2-L1U	
Reactor Vessel	2-4-D	CNFO 1438.31-86
Support Keepers	2-3-D	CNFO 1438.31-86
	2-1-D	CNFO 1438.31-86

Weld records are maintained on DPC Form M-4A or M-21. The records were found to be complete and covered QA inspections, NDE inspections, weld history, weld material identification, and identification of welders and inspectors. Quality records for plate material and weld consumables used, showed mechanical properties and chemical analysis met applicable code requirements. Welder qualification and inspector certifications were examined and found to be current.

No violations or deviations were noted in the areas examined.

7. Safety-Related Structures - Observation of Work and Work Activities Unit 2 (55064B)

Field fabrication of safety-related supports outside containment is complete. As an alternative the inspector inspected 2 completed support and selected the below listed completed support welds, for a review and evaluation of material quality, NDE examination, QC inspections and field weld fabrication records as applicable to ascertain whether applicable code and Regulatory requirements had been met. The welds selected were as follows:

<u>Component</u>	<u>Weld</u>	<u>Drawing</u>	<u>Location</u>
Pipe Support Structure MK-PSI	2PS-1-9	CNFO-1438-57	Exterior Dog House 577+0 Elevation
	2PS-1-20		
	2PS-1-31		

The review/inspection focused on:

- a. Weld identification/location
- b. Use of applicable weld procedure
- c. Welders performing the weld currently qualified for positions being welded
- d. Use of specified weld material
- e. Procedures used to remove and repair defects and remove fit-up clips (if applicable)
- f. Physical appearance of the weld
- g. NDE performed at proper stage of fabrication

Within the areas inspected no violation or deviations were identified.

8. Safety-Related Structures (Welding) - Review of Quality Records Unit 2 (55065B and 55066B)

Field fabrication and material quality records of safety-related structures and supports inside/outside containment where welding, testing and inspection (QC) activities had been completed were selected for review and evaluation. Components selected were identified as follows:

- a. Feedwater Pipe Restraint Structure MK #RS-1
- b. Polar Bridge Crane Restraint 2RB-200
- c. Boric Acid Tank RCN-244
- d. Refueling Water Storage Tank RCN-247

Welds for which records were selected for review to verify conformance with established procedures, applicable codes ASME Section III (74S76)/AWS D1.1 and Regulatory requirements were as follows:

<u>Component</u>	<u>Weld</u>	<u>Drawing No.</u>
Feedwater Restraint MK #RS-1	2-1	CNFO 1438.31-108, Rev. 10
	2-6	CNFO 1438.31-108, Rev. 10
	2-8	CNFO 1438.31-108, Rev. 10
Polar Bridge Crane Restraint 2RB-200		CN 1080-30, Rev. 6 -31, Rev. 2

Boric Acid Tank	MK #13-1/13-36 to Tank MK #32-1/32-4 To Shell	RCN-244
Refueling Water Storage Tank RCN-247	Vertical Seam 26, ring 4 Weld #8, Ring 3 to 2 Vertical Seam 11 Ring 1 opposite side	RCN-247

Records selected for review covered QA inspections, NDE inspections, weld history, weld material identification, and identification of welders and inspectors. Quality records for plate material and weld consumables used, were reviewed to determine whether mechanical properties and chemical analysis met applicable code requirements.

Within this area the inspector found that the documentation package for the Boric Acid Tank S/N RCN-244, did not include (1) certification for stainless 308 electrodes produced from lot number 462341 (2) performance qualification records for welder with stencil No. 847 (3) welder's stencil and weld material used to fabricate welds: MK29-12/29-19 to tank, 74-79 and 94-95 on page 68 of the documentation package and, welds 82-87 and 96-97 on page 70 of the same package. The inspector identified this apparent discrepancy to the licensee who agreed to pursue the matter further. This was identified as unresolved item 414/84-35-01, Boric Acid Tank S/N RCN-244 incomplete field weld records.

Within the areas inspected no violations or deviations were identified.