



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

Report Nos. 50-413/81-01 and 50-414/81-01

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

Facility Name: Catawba

Docket Nos. 50-413 and 50-414

License Nos. CPPR-116 and CPPR-117

Inspection at Catawba site near Rock Hill, South Carolina

Inspectors: J. K. Rausch for
 P. K. VanDoorn

2-5-81
 Date Signed

M. Thomas
 M. Thomas

2/6/81
 Date Signed

Approved by: J. K. Rausch for
 J. C. Bryant, Section Chief, RCES Branch

2/6/81
 Date Signed

SUMMARY

Inspection on January 12-16, 1981

Areas Inspected

This routine, unannounced inspection involved 62 inspector-hours on site in the areas of reactor coolant pressure boundary piping - observation of welding and non-welding activities (Unit 2); safety related piping observation of welding (Unit 2); safety related pipe support and restraint systems - review of work procedures (Units 1 and 2); and followup of IE Bulletin 80-21 (Units 1 and 2).

Results

Of the four areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

- *D. G. Beam, Project Manager
- *D. L. Freeze, Project Engineer
- *S. W. Dressler, Senior Construction Engineer
 - L. R. Barnes, Hangar Manager
 - R. A. Morgan, Senior QA Engineer
 - L. R. Davison, Senior QC Engineer
- *J. C. Shropshire, QA Engineer
- *H. D. Mason, QA Engineer
- *M. R. Hemphill, QA Engineer
- H. E. Edwards, Design Engineer
- R. G. Rouse, QA Technician - Welding

Other licensee employees contacted included 10 construction craftsmen, two inspectors, and three office personnel.

Other Organizations

Hartford Steam Boiler Inspection and Insurance Company

J. W. Kosko, Authorized Nuclear Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 16, 1981 with those persons indicated in Paragraph 1 above. The unresolved items described in paragraphs 9 and 10 were discussed in detail. During this meeting the licensee informed the inspectors that Mr. D. L. Freeze was transferring to a new position off-site and his position of Catawba Project Engineer is being eliminated.

3. Licensee Action on Previous Inspection Findings

Not inspected.

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 paragraphs 9 and 10.

5. Independent Inspection Effort (Units 1 and 2)

The inspectors performed an inspection of the reactor buildings, auxiliary building, outside storage areas, weld material issue station, and the pipe fab shop for conformance to code and procedure requirements in the areas of housekeeping, safety related pipe storage, material handling and control, nondestructive examinations (NDE), and verification of inspector qualification. Liquid penetrant (PT) tests were observed for welds 2NI119-2, 2NI119-3, 2NI119-8, and 2NI121-6. The inspector observed handling of safety related pipe for welds 2KF97-14, 2KF97-15, and 2KF97-16.

No violations or deviations were identified.

6. IE Bulletin No. 80-21 - Valve Yokes Supplied by Malcolm Foundry Company, Inc. (Units 1 and 2)

Duke submitted the subject bulletin response for Catawba on January 5, 1981. This response indicates that no safety related valves planned to be used for the Catawba site contain parts supplied by Malcolm Foundry Company, Inc. Duke informed the inspector that their determination was made by contacting all vendors supplying safety related valves for Catawba. This action is considered satisfactory and this bulletin is closed.

No violations or deviations were identified.

7. Reactor Coolant Pressure Boundary Piping (Welding) - Observation of Work and Work Activities (Unit 2)

The applicable code for installation of reactor coolant pressure boundary and other safety related piping is ASME Section III (74S75). The inspector observed in process welds and reviewed records for conformance to procedure requirements in the areas of documentation of pertinent information and QC signoffs via a weld traveler, availability of pertinent instructions, weld identification/location, use of qualified welding procedures, provisions for weld repair provided, certification of filler material, control of welding parameters, verification of welder qualification, use of specified shielding and purge gas, control of preheat and interpass temperature, condition of weld and base metal surfaces, and verification of fitup. The following welds were observed:

Weld No.	Size	Class	Stage of Welding Observed
2NC9-1	29"	1	Intermediate
2ND67-2	12"	1	Fitup
2ND67-8	12"	1	Fitup
2NI55-2	6"	1	Intermediate

No violations or deviations were identified.

8. Safety Related Piping (Welding) - Observation of Work and Work Activities (Unit 2)

The applicable code is identified in paragraph 7. The inspector observed in process welds and reviewed records for conformance to code and procedure requirements in the areas of documentation of pertinent information and QC signoffs via a weld traveler, availability of pertinent instructions, weld identification/location, use of appropriate qualified welding procedures, provisions for weld repair provided, certification of filler material, control of welding parameters, verification of welder qualification, use of specified shielding and purge gas as applicable, control of preheat and interpass temperature, condition of weld and base metal surfaces, and verification of fitup. The following welds were observed:

Weld No.	Size	Class	Stage of Welding Observed
2KF53-1	10"	3	Intermediate
2KF53-2	10"	3	Intermediate
2KF53-10	10"	3	Intermediate
2KF53-11	10"	3	Intermediate
2NB57-5	6"	2	Intermediate
2ND28-15	8"	2	Fitup

No violations or deviations were identified.

9. Reactor Coolant Pressure Boundary Piping - Observation of Work and Work Activities

- a. The inspector observed non welding work activities for reactor coolant pressure boundary (RCPB) piping. The applicable code is identified in paragraph 7. The inspector observed handling of piping for fitup of weld no. 2ND67-2 and weld no. 2ND67-8 for conformance to applicable procedures and instructions.
- b. On January 12, 1981, during observation of fitup of Class A Weld no. 2ND67-8 in the fabrication shop the inspectors noted that handling had caused gouges in the pipe outer surface. Craftsman indicated that the gouges would "probably be cleaned up" when the welds were ground. It appears that site procedures are not provided to control this type of grinding in the fabrication shop to assure proper inspections are performed. Until the extent and severity of this problem is determined this will be Unresolved Item 50-413, 414/81-01-01 Control of Grinding on Piping Base Material.

No violations or deviations were identified.

10. Safety Related Pipe Support and Restraint Systems (Units 1 and 2)

- a. The applicable code for safety related support and restraint installation is the ASME Boiler and Pressure Vessel Code, Section III, Subsection NF, 1974 Edition plus addenda through summer 1975. The inspector reviewed procedures to determine whether they were technically adequate, approved by authorized personnel and meet applicable code and NRC requirements. Areas considered in the review included

controls to assure type and classification of pipe support and restraint systems comply with approved drawings and specifications; control of cutting and forming operations; measures to assure that bolts, nuts and washers are tight, secured as required and of the proper type and size. Inspection of dynamic supports for freeze-up; control of installation tolerances; control of support/restraint modifications; materials control; installation inspections; control and inspection of welding and in process documentation control. The following procedures were reviewed:

Specification No. CN5-1206.00-04-0003, Rev. 6 - Procedure Requirements for Fabrication and Erection of Hangers, Supports and Seismic Supports.

Construction QA Procedure L-80, Rev. 7 - Visual Workmanship Standards for welds.

Construction QA Procedure M-15, Rev. 11 - Installed Pipe Support Inspection

Construction QA Procedure M-51, Rev. 3 - Component Supports.

Support Inspection Instruction CN-1, Rev. 5 - Erection Inspection General

Support Inspection Instruction CN-2, Rev. 0 - Supplementary Instructions for Shock Suppressors, Sway Struts, and Variable and Constant Support Spring Hangers.

Support Inspection Instruction CN-3, Rev. 0 - Cold Load Setting Inspection.

Support Inspection Instruction CN-4, Rev. 2 - Final Walk Thru.

Support Inspection Instruction CN-5, Rev. 1 - Reactor Vessel Head Lifting Rig and CRDM Seismic Support Platform.

Support Inspection Instruction CN-6, Rev. 0 - Reactor Building Supports/Restraints by Civil Design.

Construction Procedure (CP) - 309, Rev. 13 - Marking Requirements for Hangar Material.

CP-313, Rev. 9 - Administrative Control of Hangar Packages.

CP-353, Rev. 8 - Adjustment, Installation and Modification of Pre-Engineered Hanger Components.

CP-385, Rev. 6 - Support/Restraint Erection Tolerances.

CP-432, Rev. 5 - Welding of Hangers, Supports and Seismic Controls.

CP-475, Rev. 0 - Administrative Control of Packages for Supports/Restraints to be Handled by the Civil Tech Support Group.

CP-488, Rev. 0 - Hanger Documentation Control of Design Engineering Sketches.

- b. On January 15, 1981 it appeared that procedure controls were not specified for thermal cutting and material forming of support materials requiring impact testing. These controls are required by ASME, Section III, subsection NF, paragraphs NF-4211 and NF-4212. The extent/effect of this problem was not determined during this inspection and therefore, until further inspection can be performed, this is Unresolved Item 50-413, 414/81-01-02 - Control of Cutting and Forming for NF Supports and Restraints.
- c. On January 15, 1981 it appeared that butt weld reinforcement requirements of ASME, Section III, Subsection NF, paragraph NF-4426 were not specified in the applicable Duke visual inspection procedure (L-80, Rev. 7). The extent/effect of this problem was not determined during this inspection and therefore this is Unresolved Item 50-413, 414/81-01-03 - Specification of Weld Reinforcement Requirements for NF Supports and Restraints.

No violations or deviations were identified.