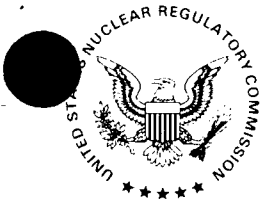


UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199



Report Nos.: 50-269/95-05, and 50-270/95-05 and 50-287/95-05,

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

Docket Nos.: 50-269, 50-270, and 50-287

License Nos.: DPR-38, DPR-47,
and DPR-55

Facility Name: Oconee Nuclear Station Units 1, 2 and 3

Inspection Conducted: April 10-12, 1995

Inspector:

J. Economos
N. Economos

5/2/95
Date Signed

Approved by:

J. J. Blake
J. J. Blake, Chief
Materials and Processes Section
Engineering Branch
Division of Reactor Safety

5/2/95
Date Signed

SUMMARY

Scope:

This routine, announced inspection was conducted in the areas of Inservice Inspection (ISI), examination of limited access welds; corrective actions for previous inspection findings; and followup on feedwater drain line cracking.

Results:

In the areas inspected, violations or deviations were not identified.

Positive steps have been taken to correct the problem associated with the failure to adequately document the percent of material examined on limited access welds, paragraph 2. In reference to the open item on issuing an administrative procedure on hydrostatic testing, no action had been taken at the time; however, the licensee stated that this document would be issued by August 1, 1995. Within this area three key maintenance hydrostatic test procedures have been enhanced and are in use, paragraph 3. A weld leak on a drain line, downstream from the second stage reheater drain tank "A", was successfully repaired, paragraph 4.

Enclosure

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REPORT DETAILS

1. Persons Contacted

Licensing Employees

- *J. Batton, Steam Generator Maintenance Group
- *E. Burchfield, Manager Regulatory Compliance
- *T. Coleman, Technical Specialist, ISI
 - V. Dixon, Engineer Hydrostatic Testing
 - E. Few, Senior Technical Specialist
 - B. Foster, Manager Mechanical and Maintenance Safety Assurance
- *M. Hipps, Manager Mechanical Maintenance
- *T. Royal, Supervisor Mechanical Engineering
- *J. Smith, Regulatory Compliance

Other licensee employees contacted during this inspection included engineers, QA/QC personnel, technicians, and administrative personnel.

NRC employees

- *P. Harmon, Senior Resident Inspector

*Attended exit interview

2. Inservice Inspection (73753) Limited Access Weld Examination and Documentation

Historically when the licensee performed a partial volumetric examinations on inservice inspection (ISI) of Class 1 or 2 welds due to physical interference or component geometry, the examination record would note that it was a limited examination without specifying the percent of material/volume covered by the examination. This approach was a generally accepted method since ASME Code Section XI was not specific in what constituted an acceptable volumetric examination. Regulatory Guide 1.147, Revision 8, November 1990 endorsed Code Case M-460, which established that a volumetric examination which covered a minimum of 90% of the code required volume of material was acceptable.

In an effort to bring the ISI program into compliance with this minimum coverage requirement DPCo, (Duke Power Company) reviewed and plotted volumetric coverage from past examination records generated during the first interval for McGuire Unit 1. To perform this activity, DPCo determined that it required approximately 1500 work-hours to complete the project and projected that it would take approximately 5000 work-hours to review and plot the examination data for the other six units.

From the experience gained from this work effort, DPCo concluded that expending all those resources to obtain the actual percentage for the welds examined would not necessarily enhance the integrity of the welds in question. Therefore, on December 2, 1993, DPCo submitted a generic relief request No. 93-GO-01, seeking relief for previous examinations where actual coverage was less than what is now required by code. Under

this relief request, Class 1 and Class 2 welds whose coverage during the previous intervals did not meet minimum code requirements would be reexamined under the normal ISI inspection schedule. On October 26, 1994, NRR declined this relief request for lack of weld specific information. On January 11, 1995 during a conference call between NRR staff, Region II and DPCo, Region II and NRR determined that since it was not possible to resolve this matter through the Regulatory process it would be handled by Region II through the normal enforcement and inspection process.

During this inspection, the inspector met with the licensee and reviewed the situation for the three Oconee Units in an effort to gain a better understanding of the number of welds involved in this matter and to seek a workable resolution. As such the licensee presented a compilation of limited access welds based on the rules of ASME Code, Section XI, 1989 Edition with no Addenda. The categories of the subject welds were as follows:

- Reactor Vessel Welds
- Class 1 Nozzles- including Nozzle to Vessel Welds; inside Radius Sections; Nozzle to Safe End Welds; Safe End to Pipe Welds and Terminal Ends.
- Class 2 Nozzles
- Class 1 Stress Welds

ASME Code Class - 2 vessel welds and terminal welds were not discussed at this time.

Within these areas, the inspector ascertained that the number of limited access welds under the above mentioned categories involved a total of 165 welds. A breakdown of these welds by code Examination Categories is as follows:

<u>Examination Category</u>	<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>
B-A Pressure Retaining Welds in Rx Vessel	11	4	0
B-D Full Penetration Welds of Nozzles in Vessels	48	43	10
B-F, Pressure Retaining Dissimilar Metal Welds	7	12	4

	3		
B-J, Pressure Retaining Welds in Piping	6	8	6
C-B Pressure Retaining	2	0	4
Nozzle Welds in Vessels	—	—	—
Totals	74	67	24

Through this and discussions, the inspector understands that BWNT will provide the licensee details of Reactor Vessel weld coverage obtained with their remote examination tool. These data will be evaluated plotted and requests for relief will be submitted as required. In a similar manner, full penetration welds of Reactor Vessel Nozzles (category B-D), examined from the inside diameter by BWNT will be evaluated plotted and requests for relief will be submitted as required. For welds in the same Category (B-D), involving nozzles on the Pressurizer and Steam Generators that were examined manually, the licensee's schedule calls for examination, of a large percentage of this population, over the next three refueling outages scheduled between 1995 and 1998. At that time, examination data will be plotted and requests for relief will be submitted as required. In instances where similarities exist between welds in the three Oconee Units information from the examined welds will be used as the basis for relief in the other two Units. Following this review, the inspector closed previously identified IFI 270/94-35-01 and opened a new IFI encompassing all three Units. This new IFI will be identified as 269, 270, 287/95-05-01, Limited Access Weld Examination and Documentation.

Within the areas inspected violations or deviations were not identified.

3. Followup on Previously Identified Items (92702)
(Open) IFI 270/94-35-02, Administrative Procedure on Hydrostatic Testing

The inspector met with the cognizant station engineer to review specific areas of the hydrostatic testing program such as administrative controls which were found to be lacking during a previous inspection, see Report No. 94-17. Procedural changes which have been implemented since the previous inspection include: temporary changes to maintenance procedures (MIP) which now appear as attachments to the MP(s); applicable MPs have been revised to account for the possibility of valve thermal binding. These require signature by the cognizant systems valve engineer; and temporary changes to pipe system configuration now require review for possible 50.59 evaluations. Procedures which underwent these enhancements and were reviewed for content are as follows:

- MP/O/A/1720/010 Change 26, System Component Hydro for ISI Nuclear Station Modification, Minor Modification or Following Repair.
- MP/O/A/1720/016 Change 13, Procedure for ISI Repair or Replacement.

- MP/O/A/1720/015 Change 08, Piping-Pneumatic Test After Installation Repair or Modification.

At the time of this inspection the subject Administrative document that would describe and provide control of hydrostatic activities including the hierarchy of programmatic responsibility had not been issued. This item would therefore remain open until its issuance early in August of 1995.

4. Crack in Feedwater Heater Drain Line Unit 2 (37550)

At the time of this inspection the licensee had identified a throughwall weld crack on the small end of a 6" to 3" reducer next to valve 2HD-29. The reducer was on the line coming from the second stage reheater drain tank "A." The 6"x 3" reducer was made of stainless steel material 0.340 inches thick. The adjoining pipe was also made of stainless steel material 0.300 inches thick. The line was located in the basement of the turbine building and was identified as DPCo. Class G, USAS power Piping Code B311. As such the completed weld received a visual inspection for workmanship acceptability. There is no requirement for weld identification or material traceability under this classification. The inspector observed the leaking joint and noted that a thin spray was emanating from the toe of the weldment. The licensee's pinned the weld to stop the leak and deposited a heavy weld overlay over approximately one half of the weld circumference. The licensee plans to remove the entire weld during the next refueling outage to investigate the root cause of the subject failure.

5. Exit Interview

The inspection scope and results were summarized on April 12, 1995, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection findings. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

(Closed) IFI 270/94-35-01, Generic Code Relief Request, 93-GO-01 on limited ISI Examinations.

(Open) IFI 270/94-35-02, Administrative Procedures on Hydrostatic Testing.

(Open) IFI 269, 270, 287/95-05-01, limited Access Weld Examination and Documentation.