

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-336/82-20

Docket No. 50-336

License No. DPR-65 Priority - Category C

Licensee: Northeast Nuclear Energy Company

P.O. Box 270

Hartford, Connecticut 06101

Facility Name: Millstone 2

Inspection at: Waterford, Connecticut

Inspection conducted: September 20 and 21, 1982

Inspectors: *Paul D Reynolds*
S. D. Reynolds, Jr.
Reactor Engineering Inspector

10/12/82
date signed

Keith Christopher for
Raymond E. Shepherd, Acting Director
Office of Investigations, Philadelphia Field Office

10/12/82
date signed

Approved by: *J. P. Durr*
J. P. Durr, Chief, Materials & Processes Section

10/14/82
date signed

Inspection Summary:

Inspection on September 20-21, 1982 (Report No. 50-336/82-20)

Areas Inspected: Special inspection of licensee by one regionally based Reactor Engineering Inspector and one NRC Investigator conducted in response to an allegation. The allegation concerned inspections being conducted by improperly qualified personnel on modifications and repairs to steam generators conducted during the December 5, 1981 to April 14, 1982 plant outage. The inspection involved 29 hours at the site and 8 hours at regional headquarters.

Results: No violations were identified.

DETAILS

1. Persons Contacted

Northeast Nuclear Energy Company (NNECO)

*V. Papdopoli, Quality Assurance Supervisor
*E. J. Mroczka, Station Superintendent
*D. O. Nordquist, Supervisor Design and Operation QA
*E. Farrell, Station Services Superintendent
F. Whitaker, Radiation Protection, Supervisor
R. Cikatz, Quality Assurance Engineer
R. Bradley, Plant #2 Quality Control Technician

*Denotes those present at exit interview.

2. Purpose of Inspection

The special inspection was conducted in response to an allegation which indicated that inspections were performed on steam generator nozzle dam modifications and welded tube plugs during the December 5, 1981 to April 14, 1982 plant outage by improperly qualified inspectors. The inspection was to review pertinent quality records to ascertain a total list of inspectors, the work performed by these inspectors, and dates of inspections associated with the aforementioned modifications and repairs. The inspection was also to ascertain if other quality related work was conducted by the group of inspectors mentioned in the allegation and to also determine the safety significance of the work inspected.

3. Scope

The special inspection consisted of detailed record reviews, interviews and a determination of the safety aspects of the subject modifications and repair work.

4. Background

During a scheduled outage from December 5, 1981 to April 14, 1982 the licensee conducted steam generator maintenance repair and modification work on both (#1 and #2) steam generators. This work consisted in job orders for installation of a nozzle dam system, tube plug welding, removal of tubes and mechanical tube plugging. The nozzle dam system, tube plug welding, and removal of tubes were subcontracted to the nuclear steam supply (NSS) vendor and the mechanical tube plugging to another subcontractor. The nozzle dam modification was previously reported in inspection report 50-336/82-18. The non-destructive examination requirements of the American Society for Mechanical Engineers, Section XI Nuclear Inservice Inspection (ASME SC XI) called for visual inspection of

the tube plug welds and nozzle dam thimble welds. This inspection was conducted by the NSS vendor under the licensee's quality requirements. The NSS vendor utilized his own inspectors and also utilized inspectors provided under a subcontract. As indicated in inspection report 50-336/82-18 the licensee questioned the qualifications of certain inspectors conducting the final weld inspections on the nozzle dam job order.

5. Findings

The NRC inspector determined that the job orders associated with the subject steam generator work were as follows:

282-109	(Nozzle dam system installation)
282-309	(Tube removal)
282-333	(Mechanical tube plugging)
282-333A	(Mechanical tube plugging)
282-359	(Nozzle dam removal)
282-380	(Tube plug welding)

The weld inspections identified by the licensee as being performed by inspectors whose qualifications were questioned (NCR 282-7) were limited to certain personnel from the subcontract group hired by the NSS vendor. The NRC inspector reviewed all of the inspection reports applicable to weld inspections on the nozzle dam and the welding jobs.

The NRC inspector reviewed computer printouts and Northeast Utilities QA Purchase Order Status from the period of January 1, 1980 to August 31, 1982. This printout was used to develop a vendor list for work conducted during this period. The licensee determined from this list that no other inspection work was conducted by those personnel whose qualifications were questioned.

The NRC inspector developed a list of badged-in dates and termination dates for all of the NSS subcontract inspectors and correlated this list with inspections conducted during this period of time. The licensee reported that a list correlating the job order inspections conducted with Radiation Work Permits (RWPs) was developed.

As previously reported in 50-336/82-18 the nozzle dam thimble welds were reinspected by inspectors whose qualifications were determined to be acceptable and further inspections on the tube plug welds were also conducted by inspectors from this group.

The licensee committed to provide the results of a review of vendors inspections conducted under the Backfit and Betterment group. This review will indicate if inspections were conducted by any of the inspectors whose qualifications were questioned in NCR 282-7. The licensee also committed to provide an engineering evaluation of the safety significance of the steam generator plugwelds and thimble welds which would justify continued operation.

6. Conclusions

Review of the inspection records and NCR's indicates that the thimble welds conducted by inspectors whose qualifications were questioned were re-inspected by qualified inspectors. Review of the Millstone 2 plant QC records indicates that those inspectors whose qualifications were questioned (on NCR 282-7) did not conduct any other weld inspections from the period of January 1, 1980 to September 1982. The records also show that following the NCR 282-7 statement of "questioned qualifications" on January 20, 1982 that no further inspections were conducted by inspectors whose qualifications were not approved by NNECO. The final date for badge termination for those inspectors whose qualifications were questioned is January 3, 1982.

7. Safety Concerns

There is no evidence at this time that the inspectors whose qualifications were questioned inspected any weldments other than the nozzle dam thimble welds. These welds were re-inspected by inspectors whose qualifications were acceptable to both NNECO and the NSS vendor. The licensee has committed to conduct an engineering evaluation to assess the safety significance of these welds. The licensee has also committed to provide the results of a survey conducted by the Backfit and Betterment group which will indicate if those inspectors with unacceptable qualifications could have conducted other inspections at the site during the period January 1, 1980 to present.

This item is considered unresolved pending review of the aforementioned engineering evaluation and subcontract inspection survey results.
(336/82-20-01)

8. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations or deviations. An unresolved item disclosed during the inspection is discussed in paragraph 7.

9. Exit Interview

The NRC inspector met with the licensee's representatives (denoted in paragraph 1) at the conclusion of the inspection on September 20, 1982. The inspector summarized the findings of the inspection. The licensee acknowledged the inspector's comments.