

U. S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I

RO Inspection Report No: 50-29/74-12 Docket No: 50-29
Licensee: Yankee Atomic Electric Company License No: DPR-3
20 Turnpike Road Priority: _____
Westboro, Massachusetts 01581 Category: C
Location: Rowe, Massachusetts
Type of Licensee: PWR 174 MW(e)
Type of Inspection: Special Announced
Dates of Inspection: September 18-19, 1974
Dates of Previous Inspection: September 10-12, 1974
Reporting Inspector: *J. F. Sanders* 10-1-74
J. F. Sanders, Reactor Inspector Date
Accompanying Inspectors: NONE _____ Date

Other Accompanying Personnel: NONE _____ Date
Reviewed By: *R. Haynes* _____ Date
R. Haynes, Senior Reactor Inspector Date

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SUMMARY OF FINDINGS

Enforcement Action

None

Licensee Action on Previously Identified Enforcement Item

Not Inspected

Design Changes

None

Unusual Occurrences

None Identified

Other Significant Findings

A. Current Findings

1. Corrective work has been completed on the safety injection system pipe hanger^s which had been displaced or damaged during a water hammer event. (Details, Paragraph 3)
2. The installation of hydraulic snubbers on the pressure relief piping of the pressurizer has been completed. (Details, Paragraph 4)
3. The plant modifications, deemed necessary as a result of the evaluation of the effects of a piping system break outside containment, have been completed. (Details, Paragraph 5)
4. The Thin Wall Valve Verification Program as outlined in RO:I letter of June 22, 1972 has been completed. (Details, Paragraph 2)

B. Status of Previously Reported Unresolved Items

Previous inspection in April, 1973, determined that (2) two valves required further evaluation to complete the "Thin Wall Valve Verification Program". This item is considered resolved.

Management Interview

At the conclusion of the inspection a meeting was held by the inspector with the following persons:

Yankee Atomic Electric Company

W. Jones, Assistant Plant Superintendent
J. Staub, Technical Assistant
R. Durfey, Technical Assistant

The following items were discussed:

- A. Thin Wall Valve Verification Program. No deficiencies were identified. (Details, Paragraph 2)
- B. Safety injection system pipe hanger displacement and corrective work. No deficiencies were identified. (Details, Paragraph 3)
- C. Installation of hydraulic snubber restraints on the pressurizer relief valve lines. No deficiencies were identified. (Details, Paragraph 4)
- D. Plant modifications for postulated effects of a piping system break. No deficiencies were identified. (Details, Paragraph 5)

DETAILS

1. Persons Contacted

Yankee Atomic Electric Company

W. Jones, Assistant Plant Superintendent
J. Staub, Technical Assistant
R. Durfey, Technical Assistant
D. Army, Engineering Assistant
J. Singleton, Quality Assurance, Westboro, Massachusetts

2. Thin Wall Valve Verification Program

The program as outlined in letter June 22, 1972, from J. P. O'Reilly, was previously inspected in April of 1973. The result of this inspection was approval of all of the valves with the exception of (2) two which required additional justification. These were a motor operated 6" gate valve made by Pacific Valve Company and installed in the shutdown cooling line. The other valve was a 4" Velan check valve in the safety injection system. The inspector reviewed the engineering evaluation for the acceptance of these two valves. This concludes the Valve Wall Verification Program. No deficiencies were identified.

3. Safety Injection System Pipe Hangers

The hangers supporting the safety injection lines were displaced and bent as reported by Plant Information Report No. 18 which stated the cause to be attributed to a plant trip caused by an instrument electrical ground which resulted in auto-initiation of the safety injection system. This caused a water hammer which resulted in a shift in the safety injection piping system set.

The inspector reviewed the postulated causes and the corrective work performed which consisted of the following:

- a. Restoration and repositioning of restraints.
- b. Non-destructive testing of the hanger welds.
- c. Non-destructive testing of welds of the low pressure safety injection pipe penetration inside the vapor containment, low pressure safety injection pipe penetration outside the vapor

containment, high pressure safety injection pipe penetration to pipe extension inside the vapor containment and high pressure safety injection extension pipe to vapor containment.

No deficiencies were identified.

4. Pressurizer Relief Valve Discharge Lines

An inspection was made of the work performed in the location and installation of hydraulic snubber restraints for the pressurizer relief valve discharge lines. This change was made to meet the latest design criteria and to compensate for the maximum stress levels produced by transient dynamic loading during valve actuation. The following procedures and documentation were reviewed.

- a. OP-5000.15 - Installation of pressurizer safety and relief valve discharge piping restraints
- b. DP 5106 - Inspection and maintenance of hydraulic snubbers - Grinnel.
- c. Inspection Check Lists
- d. N.D.E. Procedure and results

No deficiencies were identified.

5. Plant Modifications

The completed plant modifications, which were deemed necessary from the study report of July, 1973, "Effects of a piping break outside containment", were inspected for compliance to the report. The items inspected are listed:

- a. Switchgear room floor, the installed shield plates under the floor, added I beam restraints at feedwater line elbows, and protection of essential cable conduits feeding the switchgear room.
- b. Concrete wall between the turbine hall mezzanine and the switchgear room, added restraint on adjacent feedwater line, added steel shield wall 32' long x 6' high between feedwater lines and wall, and steel door of switchgear room.
- c. Concrete wall containing a 8" x 16" plexiglas viewing window between control room and turbine hall.

- d. Modified doors to control room and switchgear room.

- e. Crushable 14' x 14' impact liner plate installed between the main steam line and feedwater line and the outer wall of the switch gear room and restraints added to vital cable conduits 31' above the main steam line.

Within the scope of this inspection, no deficiencies were identified.