

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/85033(DRS)

Docket No. 50-341

License No. NPF-33

Licensee: Detroit Edison Company
2000 Second Avenue
Detroit, MI 48224

Facility Name: Enrico Fermi Nuclear Power Plant, Unit 2

Inspection At: Enrico Fermi 2 Site, Monroe, Michigan

Inspection Conducted: June 24-26, July 8-9, 1985

Inspector: *J. J. Hansen for*
P. D. Kaufman

7/23/85
Date

Approved By: *J. J. Hansen for*
D. H. Danielson, Chief
Materials & Processes Section

7/23/85
Date

Inspection Summary

Inspection on June 24-26 and July 8-9, 1985 (Report No. 50-341/85033(DRS))

Areas Inspected: Routine, announced safety inspection to review testing of pipe support and restraint systems and related inspection documentation; review anchor bolt spacing problems; followup on previously identified inspection findings. The inspection involved a total of 34 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

Detroit Edison Company (DECo)

*W. H. Jens, Vice President/Nuclear Operations
F. Agosti, Manager/Nuclear Operations
E. P. Griffing, Assistant Manager/Nuclear Operations
G. M. Trahey, Director NQA
*A. Colandrea, Principal Engineer/Civil
*W. D. Ackerman, Senior Engineer NQA
*J. E. Conen, Engineer Licensing
J. F. Malaric, Supervisor/Field Engineering
T. Young, Lead Design Field Engineer
A. K. Lim, Systems Engineer
M. W. Shields, Lead Startup Test Phase Engineer

*Denotes those attending the exit meeting.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (341/84-59-01): The licensee's evaluation of Multiple Dynamics Corporations (MDC) revised analysis of postulated high and moderate energy pipe breaks outside primary containment had not been completed. DECo Qualification Engineering group reviewed the revised MDC report and concluded the changes to the report would not impact the hardware configuration of the plant. DECo performed a detailed stress analysis, Design Calculation DC-3098 to Sargent & Lundy's Stress Report RWCU-01, Revision 4, to relocate two postulated break locations on a 6" diameter Reactor Water Cleanup System suction line in Room 223 of the Reactor Building. DECo also has prepared FCN-85-058 which will be submitted to NRR for an FSAR change to identify the new break location outside the room.

3. Testing of Pipe Support and Restraint Systems

The licensee's FSAR commitments and procedures relating to examination and testing of safety-related supports and restraints were reviewed during previous inspections and documented in Region III Inspection Reports No. 50-341/84-31 and 50-341/84-59.

During this inspection the inspector reviewed the intermediate 250(+25)°F thermal expansion test data on the piping of the NSSS and related auxiliary systems. The actual observations and/or recordings of the systems thermal movements were performed by DECo's Startup Test Phase group and Project/Nuclear Engineering organization. The personnel utilized in the data-taking assignments were supervised by individuals qualified to ANSI N45.2.6 and attended a training class of the required verification to be conducted to Startup Test STUT.XXX.017, "Thermal Expansion Walkdowns."

The post test system expansion evaluations of the test data and out-of-tolerance deviations were judged to be acceptable, even though some expansion displacements exceeded the specified tolerances of the calculated values. The inspector determined the licensee's intermediate thermal system expansion test and evaluations are acceptable and that the piping is capable of performing its design function.

No violations or deviations were identified.

4. Control Center Anchor Bolt Spacing Problem

At the request of the Senior Resident Inspector, the RIII inspector reviewed the licensee's Nonconformance Report NCR 84-905, Revision A, dated August 2, 1984, that pertained to numerous anchor spacing violations that were found in the cable spreading room and relay room of the control center and which had not been dispositioned. A total of 123 spacing violations were found and documented on the NCR, but only 79 cases could be specifically reinspected to obtain actual anchor spacing distances due to extensive fire wrapping on the other cases originally identified on June 13, 1984 by NCR 84-905. Several of the spacing violations included self-drilling anchor installations on QA-1 cable tray supports.

Since numerous unverifiable conditions still exist due to the fire wrapping and the licensee not wanting to remove the fire wrap to conduct a reinspection to obtain the actual anchor spacing distances, the licensee performed a worst-case analysis as documented in DECo's Design Calculation DC-3259, dated July 8, 1985, which generically evaluated the effect of anchor bolt spacing violations of self-drilling anchors. The analysis demonstrated that the stress levels in the anchorages would still be acceptable and the recommended factor-of-safety per industry standard ACI-349, Appendix B, was not compromised.

No violations or deviations were identified.

5. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on July 9, 1985, and discussed the scope and concerns of this inspection. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.