

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No.: 50-341/85036(DRS)

Docket No.: 50-341

License No. NPF-33

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

Inspection At: Fermi 2 Site, Monroe, MI

Inspection Conducted: June 20 through 28, 1985

Inspector: *W. G. DuPont*
S. G. DuPont

7/9/85
(Date)

Approved By: *M. A. Ring*
M. A. Ring, Chief
Test Programs Section

7/9/85
(Date)

Inspection Summary

Inspection on June 20 through 28, 1985 (Report No. 50-341/85036(DRS))

Areas Inspected: Verification of licensee's compliance to the conditions of License No. NPF-33, initial criticality witnessing, startup test phase test witnessing and startup test phase test result review. The inspection involved 32 inspector-hours onsite by one NRC inspector including 10 inspector-hours onsite during offshifts. In addition, the inspection involved 10 inspector-hours in the regional office.

Results: No violations or deviations were identified.

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DETAILS

1. Persons Contacted

The Detroit Edison Company (DECo)

- *R. S. Lenart, Superintendent, Nuclear Production
- *F. E. Abramson, Assistant Operations Engineer
- *J. J. Wald, Principal Engineer
- *G. J. Debner, Lead Startup Test Phase Engineer
- +*M. W. Shields, Startup Engineer
- +*J. E. Conen, Licensing Engineer

The inspector also interviewed other licensee employees, including members of the startup and operating staff.

*Denotes those attending the exit interview on June 21, 1985.

+Denotes those attending the exit interview by telecommunication on June 28, 1985.

2. Verification of Licensee's Compliance to the Conditions of License No. NPF-33

The inspector reviewed the licensee's actions in closure of items required by the Fermi 2 Facility Operating License NPF-33, Attachment 1, Section A as follows and found them satisfactory:

a. Test Exception Disposition Report (TEDR) Review

The inspector reviewed the following completed TEDRs for the following preoperational procedures for adequacy of retesting and to determine that the system performed within the requirements of the Final Safety Analysis Report (FSAR) and the prescribed acceptance criteria:

PRET.B2100.001, "Nuclear Boiler System", TEDR 27. During preoperational testing of the Automatic Depressurizing System (ADS) monitoring lights, it was difficult to differentiate the state of these lights between the dim and off status. General Electric (GE) evaluated the ADS lamp circuit design and hardware configuration and determined that the logic lamps do not perform a monitoring function by design. This interpretation is in agreement with the FSAR description in Section 7.3.1.2.2.7.

PRET.H4000.001, "Communication System", TEDRs 7, 8, 18, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, and 38. TEDRs 7, 8 and 18 were resolved by retesting through Supplemental Test Form (STF) 7 and TEDR 38 by STF 8. TEDRs 23 through 37 were resolved by initiating Fermi 2 Plant Order (EFP-1082) "Emergency Notification of Plant Personnel". EFP-1082 was initiated because several locations in the turbine auxiliary and reactor buildings had

speakers that were not greater than seven decibels (7 db) above the calculated maximum background noise levels without visible emergency strobe lights. EFP-1082 defines locations where personnel will be required to be stationed in order to receive emergency notification if work groups are assigned in those areas. This is an acceptable administrative control since those areas are not normally manned by plant personnel other than for corrective maintenance. TEDR 39 has been milestone for Test Condition 6 prior to the warranty run.

PRET.N2000.001, "Condensate System", TEDR 22 was resolved by retest STF 11 after the condensate minimum flow control valve (F404) control loop was recalibrated.

PRET.P1100.001, "Condensate Storage System", TEDRs 3 and 7 were resolved by an engineering evaluation and retest STF 11.

PRET.P.332.001, "Plant Process Sampling System", TEDRs 7 and 9 were resolved by retest STF 4 after the sample sink drain was routed to the plant system drain and verified in accordance with Field Modification Request (FMR) S-7638.

In addition to those TEDRs described above, the inspector verified that the following TEDRs were adequately completed by reviewing the appropriate documents:

PRET.B2100	TEDR 25
PRET.T4700	TEDR 6
PRET.P4100	TEDRs 6 and 8
PRET.R3600	TEDRs 17 and 28
PRET.T4100	TEDRs 14 and 16
PRET.T4800	TEDRs 13 and 15
PRET.T9200	TEDR 5
PRET.E1100	TEDR 28

No violations or deviations were identified.

b. Preoperational Test Result Verification

The inspector reviewed the results of the following preoperational tests against the acceptance criteria. Additionally, the inspector reviewed the licensee's evaluation of test results for adequacy and found them satisfactory:

PRET.E1010, "Primary Coolant Leak Detection System"
PRET.D1100, "Radiation Monitors"
PRET.P3323, "Post Accident Sampling System"
PRET.T4102, "Control Center HVAC"
PRET.T5000, "Primary Containment Monitoring System"

No violations or deviations were identified.

c. Preoperational Test Results Review

The inspector reviewed the results of the following test procedures against the prescribed acceptance criteria and reviewed the licensee's test evaluation for adequacy and found them satisfactory:

PRET.T2302, "Primary Containment Vacuum Breakers"
PRET.T4804, "Thermal Recombiner System"

No violations or deviations were identified.

3. Initial Criticality

Fermi 2 achieved criticality on June 21, 1985, on rod group 3 (Sequence B). The inspector verified that DECo had identified and met all Technical Specification requirements prior to commencing startup to criticality. Additionally, the inspector verified or observed (or both) that all Source Range Monitors (SRM) and Intermediate Range Monitors (IRM) were calibrated prior to startup. However, IRM "D" failed to respond during the startup and was placed in bypass. The inspector verified that with IRM "D" in bypass, the Technical Specification requirement of three out of four operable IRM channels was maintained throughout the startup. IRM "D" was "trouble-shot" and a work request to repair and re-calibrate was issued on June 22, 1985. No other problems were experienced and the reactor power was increased and stabilized in the power range less than five percent power (thermal). In addition, the inspector verified that DECo demonstrated that the reactor was less than five percent thermal power by performing a heat balance calculation.

No violations or deviations were identified.

4. Startup Test Phase Test Witnessing and Result Review

The inspector witnessed the following tests: the control rod sequence to initial criticality, Source Range Monitor (SRM) operability check, SRM response to control rod withdrawal, and SRM saturation check in accordance with Startup Test Phase Procedure STUR.HUA.006. Intermediate Range Monitor (IRM) overlap verification of range 6 and 7 (STUT.HUB.010), and the SRM/IRM overlap performance (STUT.HUA.010). All of the tests were performed satisfactorily.

In addition to observing the tests, the inspector reviewed the data collected and verified that the acceptance criteria were met.

No violations or deviations were identified.

5. Exit Interview

The inspector met with licensee representatives on June 21, 1985, and by telecommunications on June 28, 1985 (denoted in Paragraph 1). The inspector summarized the scope and findings of the 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.