

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/84-28(DRS)

Docket No. 50-341

License No. CPPR-87

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, MI

Inspection Conducted: August 1 through 30, 1984

Inspectors: *RCMD for*
S. G. DuPont

9/12/84
Date

RCMD for
R. D. Lanksbury

9/12/84
Date

B. Hills
D. Hills

9-11-84
Date

RCMD for
P. Rescheske

9/12/84
Date

Approved By: *L. A. Reyes*
L. A. Reyes, Chief
Test Programs Section

9/12/84
Date

Inspection Summary

inspection on August 1 through 30, 1984 (Report No. 50-341/84-28(DRS))

Areas Inspected: Routine, unannounced inspection of startup phase test program, startup phase test procedure verification, and startup phase test procedure review. The inspection involved a total of 203 inspector-hours by four NRC inspectors including 109 inspector-hours onsite, 22 inspector-hours onsite during off-shifts, and 72 inspector-hours offsite.

Results: Of the three areas inspected, no items of noncompliance or deviations were identified.

8410020069 840912
PDR ADOCK 05000341
Q PDR

DETAILS

1. Persons Contacted

- *F. E. Agosti, Manager, Nuclear Operations
- *G. R. Overbeck, Assistant Superintendent, Startup
- *M. W. Shields, Lead Startup Test Phase Engineer
- *E. H. Drumhiller, GE Site Operations Manager
- G. Chen, GE Lead STD & A Engineer
- *G. J. Debner, Assistant Lead Startup Test Phase Engineer
- *R. A. Sanaker, Startup Test Phase Engineer
- *G. M. Trahey, Director, Nuclear Quality Assurance
- *J. J. Wald, Engineer, Operational Assurance
- *L. P. Bregni, Engineer, Licensing

The inspector also interviewed others of the licensee's startup phase test staff.

*Denotes personnel attending the exit interview of August 30, 1984.

2. Startup Test Program

a. Test Program

- (1) The inspector verified through discussions with the licensee's staff and review of the Startup Manual (SUM), Startup Instructions, and STUT.000.100, "Master Startup Test Phase Procedure", that the startup test phase program included descriptions of responsibilities for test performance and results evaluations in accordance with Regulatory Guide 1.68, Revision 0 and the Final Safety Analysis Report (FSAR) commitments.
- (2) The inspector verified that procedures for the following areas have been identified and sequenced: core loading, initial criticality, low power testing, and power ascension testing. In addition, the program was verified to contain the required testing in accordance to Regulatory Guide 1.68 and that each test contains the following information as required by the SUM: test objectives, test summary, prerequisites and initial test conditions, and acceptance criteria.
- (3) The inspector verified that Section 14 of the FSAR, Section 9 of the SUM, and STUT.000.100 describe the preparation of startup phase test procedures in accordance with Regulatory Guide 1.68.

The inspector determined that the licensee's administrative procedures appear to provide adequate administrative measures for the above area.

b. Test Organization

- (1) The inspector verified that the nuclear operations organization has been assigned overall control of all startup test activities as described in the master startup test phase procedure STUT.000.100, which states that the Nuclear Shift Supervisor (NSS) is directly responsible for overall day to day safety and operation of the plant. During testing, the NSS directs all plant operations, in close coordination with the Startup Test Phase Engineer (STPE). The NSS will also make the initial determination of any constraints to be placed upon the plant if a Level 1 acceptance criteria is exceeded. These assignments give reasonable control and supervision of testing activities to the nuclear operations organization.
- (2) The inspector verified that the startup phase test procedure, STUT.000.100 and the SUM both describe the coordination between the STPE, NSS, operators, and General Electric (GE) personnel.

The inspector determined that the licensee's administrative procedures appear to provide adequate administrative measures for the above area.

c. Test Program Administration

- (1) The inspector reviewed the licensee's administrative procedures and interviewed licensee personnel to verify that methods had been established to govern the conduct of startup testing including the following:
 - . Methods to verify a test procedure is current prior to its use.
 - . Methods to assure personnel involved in the conduct of a test are knowledgeable of the test procedures.
 - . Methods to change (both major and minor) a test procedure.
 - . Criteria for interruption of a test and continuation of an interrupted test.
 - . Methods to coordinate the conduct of testing.
 - . Methods to document significant events, unusual conditions, or interruptions to testing.
 - . Methods for identifying deficiencies, documenting their resolutions, and documenting retesting.

The inspector determined that the licensee's administrative procedures established methods to control these areas, with the following comments:

- . The inspector reviewed STUT.000.100 and startup instruction 9.4.2.01, "Startup Test Phase Procedure Preparation, Control and Distribution", and found that no requirement was specified requiring that startup test procedures were reviewed against the approved technical specifications prior to their use. In FSAR Section 14.1.4.8 the licensee

committed to performing this review. The licensee has agreed to adding this requirement to STUT.000.100. This will be carried as an open item (341/84-28-01(DRS)) pending licensee action and inspector evaluation.

- . The inspector could find no provisions within the licensee's startup program for performing 10 CFR 50.59 reviews (unreviewed safety questions) anytime they deviate from the startup program as described in the FSAR (i.e., failure to meet a level 1 acceptance criteria, testing different from or on equipment different from that described in the FSAR, etc.). The licensee has agreed to address this issue. This will be carried as an open item (341/84-28-02(DRS)) pending licensee action and inspector evaluation.

- (2) In order to verify that formal methods had been established to control scheduling of test activities, the licensee's program in this area was reviewed. The inspector found that STUT.000.100, Section 5.12, "Planning Meetings", and Section 5.13, "Scheduling Guidelines", provided adequate instructions in this area.
- (3) The inspector reviewed the licensee's program for the evaluation of test results to verify that it contained provisions for the following:
 - . Reduction of test data to meaningful and understandable form.
 - . Checking of test results and comparison of test results to previously determined performance standards.
 - . Identification of deficiencies and their corrective actions.
 - . Retesting, following corrective action or modification, to ensure the system is adequately tested.
 - . Appropriate review of test results.
 - . Obtaining of management approval prior to proceeding to the next power level.

The inspector determined that the licensee's administrative procedures appear to contain adequate provisions for controlling the above areas.

d. Document Control

The inspector reviewed the licensee's administrative procedures governing test procedure control and interviewed licensee personnel to determine if adequate administrative measures had been established to control the test procedure processes for review, approval and issuance of startup tests including the following:

- Revisions of approved procedures receive the same level of review as the original procedure.
- Operating and surveillance procedures, which are used to obtain acceptance criteria data, receive the same level of review as the original startup test procedure and are being used wherever possible.
- Responsibilities are assigned in writing to ensure that the procedural controls identified above will be implemented.

The inspector determined that the licensee's administrative procedures appear to provide adequate administrative measures for the above areas.

No items of noncompliance or deviations were identified.

3. Startup Phase Test Procedure Verification

The inspector verified that the following startup phase test procedures were written, reviewed, and approved by the licensee in accordance with the requirements of Regulatory Guide 1.68, SUM, FSAR, and the QA manual and found them satisfactory:

STUT.OVD.017	System Expansion - Ambient Temperature
STUT.HUA.017	System Expansion - Hanger Readings
STUT.HUE.017	System Expansion - Third Thermal Cycle
STUT.PFA.002	Radiation Measurements - Complete Survey
STUT.OVA.002	Radiation Measurements - Complete Survey
STUT.HUA.002	Radiation Measurements - Complete Survey
STUT.02A.002	Radiation Measurements - Complete Survey
STUT.02B.002	Radiation Measurements - Complete Survey
STUT.03A.002	Radiation Measurements - Complete Survey
STUT.06A.002	Radiation Measurements - Complete Survey

No items of noncompliance or deviations were identified.

4. Startup Phase Test Procedure Review

The inspector reviewed the following startup phase test procedures against the FSAR, SER, Regulatory Guide 1.68, the QA Manual, the Startup Manual and Instructions, and other regulatory commitments. The review was not completed during the inspection period and will be continued during subsequent inspections.

STUT.OV0.003	Initial Fuel Loading Procedure
STUT.030.018	Core Power Distribution - Test Condition 3
STUT.060.018	Core Power Distribution - Test Condition 6
STUT.01A.019	BUCLE Determination
STUT.02B.019	Process Computer Determination
STUT.03B.019	Process Computer Determination - Test Condition 3
STUT.04B.019	Process Computer Determination - Test Condition 4
STUT.05B.019	Process Computer Determination - Test Condition 5

STUT.06B.019 Process Computer Determination - Test Condition 6
STUT.040.021 Core Power Void Response

No items of noncompliance or deviations were identified.

5. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraph 2.

6. Exit Interview

The inspector met with the site representatives (denoted in paragraph 1) at the conclusion of the inspection on August 30, 1984. The inspector summarized the scope and findings of the inspection noted in this report.