

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/82-12(DPRP)

Docket No. 50-341

License No. CPPR-87

Licensee: Detroit Edison Company  
2000 Second Avenue  
Detroit, MI 48226

Facility Name: Enrico Fermi Nuclear Power Station, Unit 2

Inspection At: Fermi Site, Monroe, MI

Inspection Conducted: July 1 - August 31, 1982

Inspector: B. H. Little

Approved By: J. E. Konklin, Chief  
Projects Section 2

*S. M. Weeatt for*  
10/7/82  
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Inspection Summary

Inspection on July 1 - August 31, 1982 (Report No. 50-341/82-12(DPRP))

Areas Inspected: Licensee Action on Previous Inspection Findings; Pre-operational Test Procedure Review; Preoperational Test Witnessing; Reactor Pressure Vessel and Related Work Activities; Licensee Corrective Measures Including Re-audit of Deficient Areas; Participation in NRR/Licensee Meeting; and Plant Tours. The inspection involved a total of 198 inspector-hours onsite by one NRC inspector including 43 inspector-hours onsite during off shifts.

Results: Of the areas inspected, two items of noncompliance were identified: (Failure to accomplish activities in accordance with procedure and failure to provide appropriate procedure--Paragraph 5; failure to perform re-audit to verify implementation of required corrective actions--Paragraph 6).

## DETAILS

### 1. Persons Contacted

T. Alessi, Director, Project QA  
\*F. Agosti, Assistant Manager, Startup Testing  
H. Arora, Startup Engineer  
\*W. Everett, Assistant Project Superintendent, Construction  
\*W. Fahrner, Manager, Fermi-2 Project  
\*E. Griffing, Plant Superintendent  
A. Godoshian, Systems Completion Director  
G. Newton, QA Supervisor, Operational Assurance  
S. Noetzel, Site Manager  
\*J. Trahey, Assistant Director, Project QA  
H. Walker, QA Supervisor

#### Reactor Controls, Inc. (RCI)

J. Reed, Assistant Manager  
J. Moskwa, QC Manager  
T. Barber, Lead Engineer

\*Denotes those attending monthly management meetings.

### 2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (341/80-11-01): Reactor Building Exterior Wall Tie Holes. This item identified numerous form tie holes in the Reactor Building exterior walls. The exterior form tie holes have been filled.

### 3. Preoperational Test Procedure Review

The inspector completed review of the Reactor Coolant Pressure Boundry Hydro Test (Checkout and Initial Operation CAIO B2110.001). This test procedure defined the test objectives, test methods and acceptance criteria as described in EF-2 FSAR Section 14.1.3.2.69 (Reactor System Hydrostatic Preoperational Test). The test procedure was reviewed for administrative and technical adequacy and verification that the planned test was consistent with regulatory requirements, guidance, and FSAR commitments.

The procedure was of correct format and had received the required licensee review and approval. The procedure provided step-by-step instructions including verification of prerequisites, test details and the recording of deficiencies. The procedure also contained QC hold and witness points.

No items of noncompliance or deviations were identified.

4. Preoperational Test Witnessing

On July 26, 1982, the licensee completed the scheduled milestone "Reactor Pressure Vessel (RPV) Cold Hydro Test." The test was conducted by the DECo Startup Group and demonstrated the pressure retaining integrity of the RPV and connecting piping and satisfied the test acceptance criteria of zero visual leakage at welds within the hydro boundary.

The inspector performed various in-plant inspections prior to and during the test to evaluate licensee control of test operations including procedural compliance. The RPV Cold Hydro Test was performed using Test Procedure CAIO B2110.001. The inspector witnessed sections of the test relating to vessel fill, installation and tensioning of head studs and removal of the vessel head. The inspector also witnessed the monitoring and recording of test pressure and temperature instruments and verified that the instruments in use were in current calibration. The inspector observed minor leakage from various valve packing glands and temporary flanges. The major plant leakage was due to seat leakage through the third downstream (B) mainsteam isolation valve. The licensee has punch listed these leaks for subsequent correction.

No items of noncompliance or deviations were identified.

5. Reactor Pressure Vessel and Related Work Activities

The inspector performed frequent inspections of the refueling area (5th Floor, Reactor Building) to observe ongoing reactor vessel related work activities in support of the RPV Cold Hydro Test. This work was being accomplished by a site subcontractor, Reactor Controls, Incorporated (RCI). The inspection included; the review of procedures, observation of ongoing work and QC inspection activities, the processing and protection of quality records, the inspection of the RPV internals and related cleanliness controls.

Following the completion of the RPV Hydro Test, the inspector performed an initial entry into the reactor pressure vessel. The vessel internals were clean and free of foreign matter.

The inspector reviewed procedures and observed work in progress relating to the following RCI tasks:

- PCS-RPV-50 - Bolt-up and Tensioning of the RPV Head Studs
- PCS-RPV-52 - RPV Hydro Test (RCI)
- PCS-RPV-53 - Detention and Removal of RPV Head
- RCI-AC-1 - Access Control (Reactor Vessel)

Work was being performed in accordance with procedures which contained the required review and approval. Critical steps in the procedures provided QC hold points. These steps were witnessed by RCI-QC inspectors. Special measuring instruments used during the performance of these tasks were in current calibration.

On July 29, 1982, the inspector reviewed various RCI quality records for process control and record protection. This review included:

Liquid Penetrant Record 8-10-81 (RPV Stabilizers - joint #ASTB 090L)

Process Control Sheet (PCS) #CS-26 (RPV Internals Core Spray Sparger)

PCS #RPV-19 (Installation and alignment of RPV Top Guide Assembly) and related Deviation Disposition Request DDR #M-8017 and FDDR #KH1-281

PCS #RPV-51, Revision 17 (Lifting, Leveling, and Replacement of the RPV Head)

Weld Material Requisition Forms (WMR) issued on July 16 and 21, 1982 (approximately fifty WMRs were reviewed)

This review identified the following activities which were not being accomplished in accordance with existing RCI procedures:

a. Noting of Discrepancies on WMR

Data from WMRs

<u>Drawing No.</u>	<u>Weld Rods Issued</u>	<u>Date</u>	<u>Total Rod Stubs/Rods Returned</u>
51-721 2113-125	75	7/16/82	50
G 9G8G7	40	7/21/82	50
61721 2113-26	50	7/21/82	60

The above discrepancies; Total Rod Stub/Rods Returned to Weld Rods Issued were not noted on the WMRs as required by RCI Procedure WP-127A Section 7.6 which states, "The Lead Engineer or his designee shall record the number of rods returned, stubs returned and note any discrepancies on the WMR."

b. Processing of WMRs

WMRs issued from July 16 through July 28, 1982 were stacked on the RCI Lead Engineer's desk. These forms had not been processed in accordance with RCI QA Manual Section 6.5 (Issue of Materials) which states in part, "The Lead Engineer shall retain the original copy of the Weld Material Requisition until the end of the shift or completion of the weld joint when he will record the material returned by the welder. The Weld Material Requisition shall be included in the PCS file at the end of each shift by the Lead Engineer."

c. Storage of QA Records

WMRs which had not been processed (some for periods up to two weeks) were not protected from deterioration and damage. Those WMRs which had been processed were being stored in non-fire-retardant drawers.

Project QA Manual (QAP-18, Attachment A) Lists Weld Material Reports as "Lifetime QA records." RCI QA Manual Section 9.3 states in part, "Permanent Records shall be stored in locked fire-retardant cabinets, or a space providing equal or better protection from deterioration and damage."

Failure to accomplish activities in accordance with procedures is in noncompliance with Criterion V of 10 CFR 50, Appendix B. (341/82-12-01(DPRP))

On August 12, 1982, the inspector found that an RCI procedure, (QA Manual Section 7.3.6), did not prescribe an appropriate method for documenting the completion of activities on the Process Control Sheet (PCS) Forms. The PCS Forms provide step-by-step instructions for prescribed operations, and as activities are completed become QA records. The PCS column titled "Performed By" was being initialed and dated (weeks) after the activity was performed. Example: PCS No. RPV-51 (Lifting, Leveling and Placement of the RPV Head). The activity of installing the vessel head on the reactor vessel was completed (verified by RCI QC initial and date) on July 21, 1982. The "Performed By" column contained the RCI Lead Engineer's initials and was dated August 6, 1982. The practice of the Lead Engineer to date and initial the "Performed By" column (after the fact) was done in accordance with RCI QA Manual Section 7.3.6. However, such practice resulted in incorrect information being recorded on QA records, detracts from measures to assure that procedures are used at the location where the activity is performed and that activities are accomplished in accordance with procedures.

Failure to provide appropriate written procedures for activities affecting quality is contrary to the Enrico Fermi 2 Quality Assurance Manual Section 9.0.1, and is in noncompliance with Criterion V of 10 CFR 50, Appendix B. (341/82-12-01).

The inspector discussed the above procedural discrepancies with the licensee. The licensee acknowledged the inspector's findings and was responsive in this matter. Corrective measures applied included; DECo/RCI Management meetings, Project QA surveillances and an audit of RCI quality related activities. RCI has revised procedures for the process and storage of QA records, has taken action to improve weld rod accountability and has indoctrinated their employees to these procedures and practices, including procedural compliance requirements.

The inspector has completed review of licensee corrective action in this matter.

No response to this item is required since actions have been taken to correct the noncompliance.

6. Licensee Corrective Measures, Including Re-audit of Deficient Areas

The inspector reviewed licensee corrective measures with regard to procedure deficiencies identified in NRC Inspection Report No. 50-341/81-09



relating to the protection and storage of QA records. This review was performed to assess licensee follow-up action including re-audit in this area.

In response to the item of noncompliance identified in NRC Inspection Report No. 50-341/81-09, Detroit Edison letter, EF2-54,140, dated August 15, 1981, stated in part, "Project Quality Assurance and all safety-related site contractors are in the process of reviewing and revising their QA Manuals and/or procedures to adequately describe QA record storage and protection requirements. Construction Quality Assurance will continue to include these requirements as audit check list items to verify implementation."

During the review of Project QA audits, the inspector found that:

- a. Project Quality Assurance had not performed an audit of a safety-related site contractor (Reactor Controls, Inc.) to verify implementation of QA record storage and protection requirements (Section 5 of this report identifies ongoing related activities which were not in accordance with existing RCI procedures).
- b. In May, 1982, Project Quality Assurance performed QA Records audit of a safety-related site contractor (Wisner/Becker); however, the audit check list items did not include "verify implementation" of QA record storage and protection requirements.

Failure to conduct re-audit to verify implementation of corrective actions is contrary to the Detroit Edison Fermi 2 Quality Assurance Manual, Section 19.3.7 which states in part, "Audits shall be conducted...when considered necessary to verify implementation of required corrective actions," and is in noncompliance with Criterion XVIII of 10 CFR 50, Appendix B. (341/82-12-02(DPRP))

7. Participation in NRR/Licensee Meeting

The inspector, with NRC Headquarters Staff, met with the licensee to assess construction and testing status and review projected schedules regarding Fermi 2 fuel load date. Areas assessed included; current status of construction and testing, design and engineering, procurement activities, critical path items and areas having potential schedular impact. Plant tours were also performed.

The licensee was responsive in providing needed information, documents and schedules. Review of the material received is in progress. A summary of findings will be issued subsequent to the completion of this review.

No items of noncompliance or deviations were identified.

8. Plant Tours

The inspectors conducted tours of the RHR Complex and the Reactor, Auxiliary, and Turbine Buildings. The inspectors reviewed control

room logs, reviewed work controls and shift turnover. Reactor building areas, including drywell and torus areas, were inspected for general housekeeping practices and potential fire hazards. There has been an overall improvement in housekeeping, including the amount of debris in cable trays.

No items of non-compliance or deviations were identified.

9. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection and summarized the scope and findings of the inspection, including the items of noncompliance. The licensee acknowledged these findings and was responsive to the need for additional measures in these areas.