

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-341
License No: NPF-43

Report No: 50-341/96014(DRS)

Licensee: Detroit Edison Company (DECo)

Facility: Enrico Fermi, Unit 2

Location: 6400 N. Dixie Hwy.
Newport, MI 48166

Dates: November 18-22, 1996

Inspectors: E. Plettner, Reactor Engineer
D. McNeil, Reactor Engineer

Approved by: M. Leach, Chief, Operator Licensing Branch
Division of Reactor Safety

EXECUTIVE SUMMARY

Enrico Fermi Unit 2 Nuclear Power Plant
NRC Inspection Report 50-341/96014

This inspection report contains the findings and conclusions of the inspection of the licensed reactor operator (RO) and senior reactor operator (SRO) requalification training programs. The inspection included a review of training administrative procedures and operating examination material, observation and evaluation of operator performance and licensee evaluators during a requalification operating examination, an assessment of simulator fidelity, an evaluation of program controls to assure a systems approach to training, and a review of requalification training records.

The inspectors used the guidance in inspection procedure (IP) 71001.

Operations

Licensed operator requalification programs were implemented in accordance with 10 CFR Part 55 requirements.

Licensee controls to revise the licensed operator requalification training program were satisfactory.

One concern involving the operation of the Rod Worth Minimizer on the simulator was identified.

Report Details

I. Operations

O5 Operator Training and Qualification

O5.1 Operating History

a. Inspection Scope (71001)

The inspectors reviewed the following to assess the licensed operator requalification training program's effectiveness regarding operator performance:

- SALP Report No. 50-341/96001.
- Resident inspector observations and reports covering the time frame of June 1995 to present.
- Licensee event reports covering the time frame of June 1995 to present.

b. Observations and Findings

The inspectors determined that the Licensed Operator Requalification (LOR) training program has not been effective in all areas. A pattern of poor operator performance existed that was attributable to inadequate and incorrect procedures, operator usage of procedures, and operators failing to control work activities. In an effort to control operator errors and increase training effectiveness, the operations and training departments have implemented new departmental instructions and an Operational Excellence Plan. An evaluation of the effectiveness of the new materials was not made due to their recent implementation.

O5.2 Requalification Examinations

a. Inspection Scope (71001)

The inspectors reviewed the following using IP 71001, Appendix A checklists, to assess the licensee's examination materials' quality and content:

- Sample plans.
- The operating requalification examinations administered during the inspection week.

b. Observations and Findings

The dynamic simulator scenarios contained all the quantitative and qualitative attributes necessary to provide an effective evaluation of operator skills. The job

performance measures (JPMs) satisfied the quality checklist and were considered good. The facility did not administer a written examination. The inspectors noted minor weaknesses in the operators' usage of procedures and in three-way communications during the dynamic simulator scenarios. One entire crew from the previous week failed their requalification examination because they failed to properly execute plant emergency operating procedures. Control room communications were a contributing cause to the failures.

O5.3 Requalification Examination Administration Practices

a. Inspection Scope (71001)

The inspectors performed the following to assess the licensee's policies and practices regarding requalification examination administration and simulator fidelity:

- Observed the performance of and evaluated one operating crew and one administrative crew during dynamic simulator scenarios and the JPM examinations.
- Reviewed the simulator fidelity log.
- Reviewed Training Administrative Procedures.

b. Observations and Findings

The facility evaluators adequately identified operator performance errors during the operating examinations. The facility evaluated the crews and all individuals as satisfactory as all critical tasks were accomplished. Facility instructors stated that several individuals would be given remediation training to improve their ability to perform specific job tasks. The inspectors agreed with the licensee's evaluation results.

One simulator fidelity deficiency involving the Rod Worth Minimizer was identified. A simulation facility fidelity report is attached.

O5.4 Requalification Training Program Feedback System

a. Inspection Scope (71001)

The inspectors performed the following to assess the licensee's training program feedback system effectiveness:

- Reviewed the Safety Assessment and Quality Verification (SAQV) audit report 96-0113, "Nuclear Training," for requalification training.
- Reviewed the Licensed Operator Requalification Program Assessment NANT-96-0207 performed during November 8-11, 1996.

- Reviewed recorded changes to the requalification program.
- Reviewed operator feedback.

b. Observations and Findings

The inspectors determined the feedback process is correctly implemented. Operator and crew weaknesses as well as operator training requests were used to select training requirements for the upcoming training cycle. The licensee had a satisfactory tracking program to incorporate changes to the examination bank material when procedure changes or modifications were implemented by the plant. The program was current and up to date.

O5.5 Conformance with Operator License Conditions

a. Inspection Scope (71001)

The inspectors reviewed the following documents to assess the facility and operator licensees' compliance with 10 CFR 55.53 license condition requirements:

- Systems approach to training program records.
- Requalification training records.

b. Observations and Findings

The inspectors determined that all licensed individuals met the requirements.

O5.7 Conclusions on Operator Training and Qualification

The inspectors concluded the following:

- The licensee's overall implementation of the licensed RO and SRO requalification training programs were in accordance with 10 CFR Part 55 requirements.
- A continuous review and upgrade program was in place to address immediate and long range simulator repair and improvement initiatives.
- The licensee's controls to revise the program based on audits, industry and plant events, system and procedure modifications, and operator feedback were satisfactory.

O8 Miscellaneous Operations Issues

O8.1 (Closed) Unresolved Item 50-341/95004-01(DRS)

NRC inspectors requested that Detroit Edison perform an additional review of the Fermi Emergency Operating Procedures (EOPs) to determine whether Step PCH-7 was appropriate. Modifications were made to the EOPs (Step PCH-7 and associated support procedures) to bring them into conformance with recent changes to the BWR owner's group emergency procedures guidelines. This unresolved item is considered closed.

O8.2 (Closed) Unresolved Item 50-341/95004-02(DRS)

NRC inspectors requested that Detroit Edison perform additional review to determine whether the strategy, embodied in Step PCH-27, for venting the torus and drywell concurrently was appropriate. Modifications were made to Step PCH-27 of the EOPs and its associated support procedures to bring them into conformance with recent changes to the BWR owner's group emergency procedures guidelines. This unresolved item is considered closed.

O8.3 (Open) Unresolved Item 50-341/95004-04(DRS)

The Fermi EOP writer's guide did not ensure that the presentation of information was consistent and of benefit to the operators. The quality of EOPs over time could not be assured due to the lack of prescriptive guidance in the writer's guides. In addition, although procedure conventions had been adopted to improve the presentation of information, many of these conventions were not addressed by the writer's guide. A revised EOP writer's guide was received from a contractor and was being reviewed by Detroit Edison personnel. This unresolved item remains open.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the preliminary inspection results to members of licensee management on November 22, 1996. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection could be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

P. Fessler, Plant Manager
D. Cobb, Superintendent of Plant Operations
R. Eberhardt, Director Nuclear Training
W. O'Conner, Manager Nuclear Assessment
N. Petersen, Supervisor Compliance
L. Sanders, Supervisor Operator Training
P. Smith, Director Nuclear Licensing

NRC

C. O'Keefe, Fermi Resident Inspector

INSPECTION PROCEDURES USED

IP 71001 Licensed Operator Requalification Program Evaluation

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-341/95004-01(DRS)	URI	Step PCH-7, Hydrogen Control (EOPs), did not appear to follow EPGs.
50-341/95004-02(DRS)	URI	Step PCH-27, Containment Control, for venting the torus and drywell did not appear to follow EPGs.

Discussed

50-341/95004-04(DRS)	URI	EOP writer's guide inadequate to assure continued high quality EOPs and EOP system operating procedures.
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Attachment: Simulation Facility Fidelity Report

SIMULATION FACILITY FIDELITY REPORT

Facility Licensee: Enrico Fermi Nuclear Power Station

Facility Licensee Docket No.: 50-341

Operating Tests Administered: November 18-22, 1996

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, the following item was observed:

ITEM	DESCRIPTION
Rod Worth Minimizer	Substituting rod position operations cannot be performed. The licensee had identified that bypass operations cannot be performed.