

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/86022(DRS)

Docket No. 50-341

License No. NPF-43

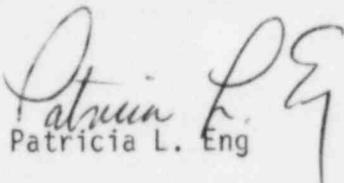
Licensee: Detroit Edison Company
2200 Second Avenue
Detroit, MI 48226

Facility Name: Fermi 2

Inspection At: Fermi Site, Newport MI

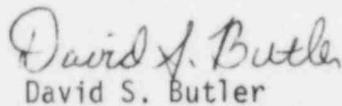
Inspection Conducted: July 14-17, 1986

Inspector:


Patricia L. Eng

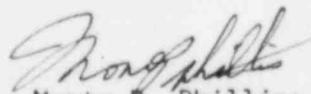
7/31/86
Date

Inspector:


David S. Butler

7/31/86
Date

Approved By:


Monte P. Phillips, Chief
Operational Programs Section

8/1/86
Date

Inspection Summary:

Inspection on July 14-17, 1986 (Report No. 50-341/86022(DRS))

Areas Inspected: Routine, unannounced inspection of actions taken on LERs; licensed operator training effectiveness (IE Module 41701) and non-licensed staff training effectiveness (IE Module 41400).

Results: Of the three areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

- *J. M. DuBay, Superintendent, Services
- *J. D. Leman, Superintendent, Maintenance and Modifications
 - L. Bregni, Compliance Engineer
- *J. T. Coleman, Supervisor, Nuclear Training
- *J. E. Conen, Licensing Engineer
- *R. C. Drouillard, Nuclear Operations Project Specialist
- *S. K. Ennis, Supervisor, Procedures
- *G. F. Kenney, Senior Nuclear Training Specialist
 - M. Marlin, Corrective Action Coordinator
- *R. W. McLeod, Acting Assistant Director, Nuclear Training
 - E. Muszkiewicz, Operational Assurance
- *F. T. Schwartz, Supervisor, NQA Staff
 - B. Sheffel, ISI Programs Coordinator
 - M. Stockman, ISI Engineer

* Denotes those in attendance at the exit meeting on July 17, 1986.

During the course of the inspection, the inspectors also met and interviewed other members of the licensee's staff.

2. Licensee Action on LER 86-13 (92700)

(Closed) LER No. 86-013: During a planned maintenance outage in May, 1986, 10 of 15 Target Rock two stage SRVs had been found to be outside Technical Specification (TS) 4.4.2.1.2 setpoint tolerance. The average setpoint lift pressure at that time was 102%. The SRVs had been last tested in mid-year, 1980. The 18 month surveillance period was begun at initial reactor startup on June 21, 1985. Previous to that time, the valves had never been subjected to normal operating conditions. During the six year period, the SRVs had drifted only 2% over their required setting. Each SRV was refurbished. Eight of the SRVs had a new pilot disc installed as recommended by the Boiling Water Reactor Owners Group SRV Setpoint Drift Committee. Retest of each SRV was performed and the average setpoint lift pressure was 100.1%. The plant margin of safety had not been reduced, and the setpoint drift had not presented any undue risk to the health and safety of the public.

3. Licensed Operator Training (41701)

a. Training Overview

In order to determine the means by which the training function at Fermi 2 was structured, the inspector requested a copy of the Training Policy Statement. The licensee provided a copy of Nuclear Operations Program Description (NOP) 400, "Nuclear

Operations Training Program," revision 2, dated December 14, 1984. During review of NOP-400, the inspector noted that of the ten signatures apparently required, only two, the Director of Nuclear Training and the Director of Nuclear Quality Assurance, were actually present. Further investigation revealed that the NOP documents were governed by Nuclear Operations Directive (NOD) 14. The revision of NOD 14 in effect at the time of the NOP revision stated that, "NOPs are reviewed and approved by all Nuclear Operations organizational unit heads and the Manager-Nuclear Operations. Final approval is required from the Vice President-Nuclear Operations." Neither the licensee nor the inspector were able to locate any provision for abbreviated review and approval for NOPs. The licensee acknowledged that the approval of NOP 400 did not agree with the statements made in NOD 14 and stated that measures would be taken to ensure that the requirements of NOD 14 would be met in the future. Review of the revision to NOP 400 revealed that the change incorporated did not change the intent or content of the program; however, it was not clear whether other NOPs were approved in a similar manner which may significantly affect operation of the Fermi 2 facility. Further review of other NOPs associated revisions and investigation of the effects on plant operations is considered to be an Unresolved Item. (341/86022-01(DRS))

The inspector noted that the licensee used a Training Work Request (TWR) which may be initiated by any Detroit Edison employee as a means of identifying potential training topics or training deficiencies to the training department. Use of the TWR is addressed by Nuclear Operations Procedure NOT 020. NOT 020 stated that evaluation of the TWR shall be completed within a maximum of ten working days.

During the inspection, the licensee indicated that with regards to INPO Training Program Accreditation, Fermi 2 had obtained accreditation for four training programs: reactor operator (RO), shift supervisor (SRO), non-licensed operator, and shift technical advisor (STA). The licensee also stated that an INPO site visit to review the remaining six training programs was scheduled for the week of October 6, 1986.

The licensee provided the following statistics regarding their licensed operator training programs:

<u>License Type</u>	<u>Year</u>	<u>Number of Exams Given</u>	<u>% Passed</u>
SRO	1984	24	96
RO	1984	21	95
SRO (SOA)	1984	5	100
SRO (restricted)	1984	2	100
SRO and RO (requal- written)	1985	47	87
SRO and RO (requal- performance)	1985	47	83

The inspection effort consisted of an investigation of the effectiveness of the licensee's training program content updates based on industry events and lessons learned during the operation and maintenance of the Fermi 2 facility and did not include an assessment of the licensee's training program. The inspector reviewed roughly 800 licensee Deviation/Event Reports (DERs) generated during the period April 1, 1985, through July 3, 1986, to determine the effectiveness and timeliness of the licensee's method of updating the training program content for licensed operators.

While reviewing selected DERs, it was noted that root causes were identified sporadically. No apparent provision to note if the DER was due to personnel error or training deficiency was found. The licensee stated that DERs and LERs were trended by the Nuclear Quality Assurance group and that repetitive deficiencies were communicated to the Training group if deemed appropriate. The effectiveness of such a method to identify repeated events was unclear as indicated by the DER list provided to the inspectors.

b. Licensed Operator Training Program Updates

Of the approximately 800 DERs reviewed, the inspector chose five for further review:

<u>DER NUMBER</u>	<u>DESCRIPTION</u>
NP-85-0522	Simultaneous Deinerting of Drywell and Suppression Chamber
NP-86-0041	Operations Failed to Notify QC
NP-86-0058	Inadequate Review of Core Spray Pump & Valve Operability Test
NP-86-0144	Failure to Report Technical Specification Fire Barrier Deficiencies
NP-86-0165	OSL Entry Not Completed

DER NP-85-0522 dealt with the simultaneous deinerting of both the drywell and suppression chamber in violation of Fermi 2 Technical Specification 3.6.1.8. The deinerting had been performed in accordance with procedure SOP 23.406 which was ultimately determined to be inadequate; however, operations personnel had failed to realize that they were in violation of the Technical Specifications (TS). As a result of the event, LER 85-069 was issued. Corrective action specified for this event as related to training, included notification of all shift personnel via Night Orders and placement of the LER into required reading. The inspector verified that these actions had been performed.

DER NP-86-0041 dealt with the failure of a Nuclear Shift Supervisor (NSS) to notify Quality Control (QC) to witness valve testing as specified on work order PN-21 985818. Associated

corrective actions related to training included re-reading the pertinent procedure and placing emphasis on the importance of hold points. In addition, a memo discussing bypassed witness hold points was sent four months after the event to all NSSs, Nuclear Assistant Shift Supervisors (NASSs) and Nuclear Shift Operators (NSOs). The inspector reviewed the memo, but was unable to locate the associated required reading package containing the pertinent procedure 12.000.15.

DER NP-86-0058 dealt with lack of detailed review of the Core Spray Pump and Valve Operability Test in that Operations personnel failed to properly plot test data per procedure requirements. Corrective actions associated with training included placing the DER into required reading. The inspector verified that the DER was placed into required reading.

DER NP-86-0144 dealt with fire doors that during a walk down were found to be "deficient" in that they did not close and latch properly. Corrective actions associated with training included "educating plant personnel of when and how to report a concern on fire doors," and noted that criteria for determining fire watch requirements rests with the NSS. Aside from general employee training, the inspector was unable to identify this item in required reading or continuing training.

DER NP-86-0165 dealt with the failure of Local Leak Rate Test (LLRT) personnel to follow procedures associated with breaching fire doors and the failure of Operations personnel to note propped open fire doors in the Out of Service Log (OSL). Corrective actions associated with training included educating LLRT personnel on the appropriate procedures and to provide a matrix of fire doors and other doors addressed in TS. The inspector verified the training for LLRT personnel and verified that a matrix had been developed. No discussion of the matrix was located in any required reading packages.

Several methods of disseminating information regarding recent events, whether they occur at Fermi 2 or elsewhere, were employed by the licensee. The official means of ensuring that licensed personnel were kept current on plant status was the continuing training which was conducted every sixth week for each shift; however, other methods of disseminating information included the following: night orders, required reading, urgent required reading, and memos to personnel.

Required reading (RR) and urgent required reading (URR) were not proceduralized. Discussion of how these packages were to be handled by personnel was addressed in a memo dated August 17, 1983, from the Training Coordinator to licensed personnel. The memo stated that urgent required reading and required reading were to be read prior to relieving the off-going shift and within seven days of receipt, respectively. Shift turnover checklists required that the on-coming shift review the urgent required reading book only. Completion of

both URR and RR were indicated by signing an acknowledgement sheet included with the reading packages. The required reading packages were withdrawn after 7 days. Late sheets were issued for personnel who had not signed the original acknowledgement sheet. Review of the acknowledgement sheets revealed that the shift technical advisors (STAs) and shift operations advisors (SOAs), who were non-licensed and licensed personnel, respectively, had not completed all the required reading packages issued during 1986. Discussions with the operations training coordinator indicated that URR and RR was only required for those individuals holding a current license. With regards to the SOAs, due to the extended outage period in early 1986, personnel who normally perform the SOA task were temporarily assigned to other duties which did not require them to be in the control room. As such, RR packages were not readily available for their review. Further discussion with members of the Training staff indicated that these individuals would not maintain their licenses.

The inspector expressed concern that the licensee's method of tracking those licensed personnel who had completed required readings did not ensure that all operators had read the required material prior to performing tasks addressed in the required reading packages. During a tour of the control room, the inspector noted that the NSS on duty had not signed the sheet associated with an urgent required reading package although the shift turnover checklist item which required reviewing the URR book associated with the turnover on the day the URR had been placed in the control room had been initialed as being complete. The licensee stated that those items deemed appropriate were added to the continuing training which was given to shift personnel one week out of every six. The criteria for topic selection for incorporation into the continuing training was not identified by the inspector.

c. Training Effectiveness

In order to assess the effectiveness of training updates, the inspector interviewed several reactor operators and senior reactor operators. Interviewees stated that the quality and content of the training received was appropriate and generally met their needs. Several operators complimented the training staff and noted that the recent temporary assignment of a licensed individual to the training department should enhance the efforts of the training staff. With respect to the deficiencies identified in the five DERs chosen for review, those personnel interviewed stated that emphasis had been placed on the importance of closing doors and that they were aware of the Technical Specification section addressing fire doors; however, none of the interviewees recalled any increased attention being placed on missed hold points, inservice testing data evaluation, or containment requirements.

The majority of personnel interviewed expressed a concern that training on plant modifications was generally not performed. Interviewees stated that changes in valve lineups due to procedure revisions were discovered during performance of valve lineup or surveillance procedures as opposed to notification that a given safety related procedure had been revised.

d. Trainee Records

The licensee filed training records according to training course as opposed to by individual trainee. As such, assembling training records for a given trainee was a tedious process; however, simulator training records were reviewed for several licensed operators. As a result of the review, the inspectors noted that the licensee's definition of the term "annual" was not compatible with the definition in the Technical Specifications. The TS defines annual as being at least once every 365 days, while annual training is conducted once within a 12 month cycle. The inspectors noted that annual required control manipulations for those individual training records reviewed were often performed in excess of 12 months. In the worst case, as many as 23 months may pass before the "annual" requirement was fulfilled. The meaning of the term "annual" as it applies to licensee operator requalification and training, in general will be forwarded to NRC Headquarters for resolution. Clarification of the term "annual" will be tracked as an Open Item (341/86022-02(DRS)).

4. Non-Licensed Staff Training Effectiveness and Qualification (41400)

Approximately 800 DERs were screened for their impact on training. The inspector identified 14 for further review:

<u>DER NUMBER</u>	<u>DESCRIPTION</u>
NP-85-0607	Bypassed QA inspection points
NP-85-0610	" " " "
NP-85-0614	" " " "
NP-85-0615	" " " "
NP-85-0621	" " " "
NP-85-0622	" " " "
NP-85-0626	" " " "
NP-85-0638	" " " "
NP-85-0651	" " " "
NP-86-0136	" " " "
NP-85-0436	Bypassed QA review
NP-85-0526	" " "
NP-85-0527	" " "
NP-85-0527	" " "
NP-85-0616	" " "

The root causes for the above DERs were lack of communication and personnel error. The licensee had developed a QA Awareness Course. Training was conducted by the QA section for personnel reviewing completed work packages, including supervisory staff. The QA trending program indicated a downward trend in these types of occurrences. Personnel who had received the training indicated that the training was complete and beneficial to their job. Craft personnel indicated that their only training in QA was from the GET program and required reading. They expressed interest in obtaining additional QA training. The QA Awareness program should be expanded to include craft and non-Detroit Edison personnel. This would maintain the current downward trend in personnel related quality assurance errors.

The OJT and craft qualification programs were reviewed with maintenance and instrument and control (I & C) training coordinators. The maintenance section had developed a formal OJT program. Junior personnel accompanied senior personnel while learning assigned tasks. The crafts were certified by their foreman, on the job, as they performed the task. The program placed emphasis on procedure compliance, efficient and cost effective maintenance, conformance to ALARA, and use of tools and test equipment. A Maintenance Training Program Development Schedule was prepared yearly. The schedule provided direction and placed emphasis on completing outage related training. A review was made of the Maintenance Metrology Lab personnel qualifications. The technician was certified on each piece of measuring and test equipment (MTE). A list was maintained in the lab for all maintenance and contract personnel qualified to use MTE. Only those with current MTE training were issued the equipment.

The I & C section used a similar approach in performing OJT and qualifying their personnel. The inspector observed portions of surveillance test 44.010.120, "IRM E Channel Calibration; C51-K601E and C51-K601C." The personnel were knowledgeable on the procedure and qualified to perform the test. The I & C program was not as well defined and scheduled as observed for the maintenance program. I & C should review the maintenance OJT and qualification guidelines for improving their own program.

The in-plant training coordinators indicated the Nuclear Operations Training (NOT) personnel were responsive to their needs. They met frequently and had discussions on what additional training should be provided by the NOT Department.

Based on the above observations, the following items should be considered for improvement:

- The TWR process should be trended for items that may lead to long-term training needs.
- NOT instructors should be provided time to evaluate in-plant training to determine the effectiveness and ensure the quality of training is maintained at a high level

- A direct feedback path between the craft and NOT instructors should be provided to ensure training concerns of the craft are not filtered out by in-plant supervision.

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 3.d.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, open items, deviations, or violations. Unresolved items disclosed during the inspection are discussed in Paragraph 3.a.

7. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on July 17, 1986, to discuss the scope and findings of the inspection. The licensee acknowledged the statements made by the inspectors with respect to items discussed in the report. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents/ processes as proprietary.