

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/84-56(DRP)

Docket No. 50-341

License No. CPPR-87

Licensee: The 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: October 31, 1984

Inspectors: R. C. Knop
L. A. Reyes
P. M. Byron

Approved: *C. E. Norelius*
C. E. Norelius, Director
Division of Reactor Projects

11/14/84
Date

Inspection Summary

Inspection on October 31, 1984 (Report No. 50-341/84-56(DRP))

Areas Inspected: Discussed Detroit Edison's Response Arising from the Duke Power Report on Final Assessment of Construction. The inspection involved a total of 10 inspector-hours onsite by 5 inspectors, including 0 inspector-hours onsite during offshifts.

Results: No items of noncompliance or deviations were identified as a result of the inspection.

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DETAILS

A. Persons Contacted

The Detroit Edison Company

W. R. Holland, Vice President
W. H. Jens, Vice President, Nuclear Operations
F. G. Agosti, Manager, Nuclear Operations
T. A. Alessi, Corporate QA Director
O. K. Earle, Supervisor Licensing
W. J. Fahrner, Manager, Enrico Fermi 2
R. S. Lenart, Superintendent, Nuclear Production
S. H. Noetzel, Assistant Manager, EF2 PMO
G. M. Trahey, Director, Nuclear Quality Assurance
R. A. Vance, Assistant Project Manager, Engineering

NRC

P. M. Byron, Senior Resident Inspector, Fermi
R. C. Knop, Project Section Chief
J. W. McCormick-Barger, Project Inspector
C. E. Norelius, Director, Division of Reactor Projects
L. A. Reyes, Section Chief, DRS

B. Discussion of Meeting

On October 31, 1984, Region III NRC personnel provided oral comments on the NRC review of Detroit Edison's response to recommendations arising from the Duke Power Report on Final Assessment of Construction.

The comments made are given below followed by the disposition as to whether a supplemental response is required by Detroit Edison Company or if sufficient information was given during the meeting to resolve the comments.

It was pointed out that separate from our review of this report, some findings by Duke are being tracked as open items in Inspection Report 50-341/84-21. Other findings from the Duke report are being reviewed on a sampling basis by various inspectors.

Supplemental responses are required for Comments 1, 3, 6, 7, 10, 13, 15, 16, 18, 20 and 21.

1. As a general comment, the report did not discuss a schedule for completion of DECO actions, especially with respect to items termed "long range plans." The Region is concerned that some items will not be completed in time to meet critical milestones such as fuel load.

Licensee Response

All items will be completed prior to full load with the exception of recommendation 17 regarding updating of drawings and recommendation 24 regarding identification of electrical equipment.

With regard to recommendation 17 the licensee intends to update all drawings required for operations (\approx 2000 drawings) by December 1, 1984.

Other drawings will be updated at a later date. The governing document for the updating will be provided to the Resident Inspector.

With regard to recommendation 24 the action will be accomplished in accordance with EFP-1066. A copy of this document will be provided to the NRC.

NRC Comments

The licensee should supplement their response reaffirming their commitment to complete all actions relative to all recommendations prior to full load with the exception of 17 and 24.

With regard to recommendations 17 and 24 the licensee should provide a summary statement with regard to what actions will be taken as well as when the actions will be completed.

2. Section 3.1.2.b - Clarify as to whether you will have all tray support design documents incorporated into original drawings and specifications at the time of turnover to nuclear production. The term "project objective" does not define a commitment.

Licensee Response

All actions will be complete by December 1, 1984.

NRC Comments

No further response is required.

3. Section 3.3.2.b - In paragraph 4 DECO treats the apparent drafting error as an isolated case. As identified in NRC inspection report 50-341/84-21, page 12, para. 8.m., several Duke findings were characterized by DECO as drafting errors. This appears to be indicative of a potential problem in DECO's drawing check, review, and approval process which has not been addressed by DECO.

Licensee Response

A supplemental response will be provided describing steps which have been or will be taken to prevent drafting errors. Additionally the response will state when these actions will be completed. Additionally, the 2000 drawings, for the control room, discussed in Item 1 will be checked for drafting errors prior to fuel load.

NRC Comments

None until the supplemental response is received.

4. Section 3.6 - DECO's response to this recommendation is not acceptable as written because:
 - a. The design engineer's re-evaluation of structural integrity of the shore barrier is not supported by a comprehensive analysis of why the significant design versus construction deficiencies are acceptable and what actually is the root cause of the variance (the designer's evaluation concludes the structure can withstand probable maximum meteorological event refers to top elevations only).
 - b. The proposed additional survey monitoring points are not sufficient in themselves to yield adequate evaluation data for comprehensively evaluating the structural integrity.

Licensee Response

DECO is getting a second engineering review of the Shone barrier profile issue from Sargent and Lundy. Also, Detroit has added six additional profiles surveys.

NRC Comments

This issue is being reviewed by the NRC under an open item for noncompliance in an inspection report (50-341/84-30-01). Disposition of this issue will be completed under that action item.

5. Section 3.7.2.a and b - DECO does not address the honeycomb concrete identified by Duke around the frame of watertight door R-1-8.

Licensee Response

An NCR was issued for the concrete around door R-1-8 requiring chipping and regrouting. All remaining doors in the Auxiliary Building will be sounded and repaired as required.

NRC Comments

No further response is required.

6. Section 3.9.2.a - The second paragraph indicates that the radiographs may have been damaged prior to turnover from the contractor. Was this damage detected by QA during the turnover review? If not, why?

Licensee Response

A supplemental response will be provided describing the document control provisions applicable to turnover of radiographs.

NRC Comments

The supplemental response should address why the watermarked radiographs were not detected at time of turnover and describe the safety significance of this issue.

7. Section 3.9.2.c.2 - The basis for selection of the sample of additional containment penetration welds to be examined by DECO was not discussed. The sample size selected seems small in comparison with the Duke sample of 26 welds and with respect to the total population of such welds.

Licensee Response

All the relevant indications which were found to date had been masked by a rough surface on the weld. Because of this, in addition to the four welds committed to previously, all applicable penetrations will be visually inspected. This review will be completed prior to the Integrated Leak Rate test. (Any welds which have a poor surface profile that could mask relevant indications will be corrected by blend grinding and magnetic particle examined.)¹

NRC Comments

Based on the information provided in note 1, no subsequent response is required. This item will be reviewed during a subsequent inspection.

8. Section 2.13.2.b.2 - What is engineering's definition of "adequate thread engagement"? If this does not agree with site specification, either the specifications must be changed or each bolted connection that does not meet site specifications must be identified and dispositioned using approved site procedures.

NRC Comments

Based on inspections conducted separately this week, this item was resolved and no response is required.

9. Section 3.16 - Cable trays should be included in the cleanup program described by DECO.

Licensee Response

The cleanup program will be submitted to the Resident Inspector for review. The cleanup program will include the cable trays.

NRC Comment

No further response is required.

¹ This information is based on discussions with the licensee subsequent to the inspection.

10. Section 3.18.2.a.2 - DECO needs a better basis for concluding that a generic problem concerning control room panel wiring does not exist. DECO statement that: "this case was compared to similar modifications performed in the control room to identify if a generic problem existed. In all cases, the field modification request requirements were clear in specifying quality control inspection and point-to-point continuity testing. The work was done using a traveler requiring review and approval by Field Engineering, Startup and Quality Control. Functional testing of valves from the main control room on various systems confirms that no such problem exists in the main control room." Based on the assigned NRC observer's understanding of the circumstances surrounding this matter, the exact same statement could be made concerning the switches in the remote shutdown panel which were found to be miswired. The FMR for those modifications also required inspection, test, and review. However, because of the way the documentation was completed, a reviewer would not identify that the required inspection and test had not been accomplished.

In addition, the circumstances that allow a small group of people to decide not to implement QA program requirements and not to modify inspection and test records to accurately reflect the activity that was performed needs to be reviewed by the applicant such that recurrence is precluded.

Licensee Response

During a review of the Remote Shutdown panel, one additional switch was found with the wrong configuration.

During recent Preoperational tests including the integrated ECCS tests many valves were manipulated from the control room without any switches being discovered having the wrong configuration. During the upcoming Integrated Leak Rate (ILR) tests approximately 200 valves will be verified to have the correct configuration.

NRC Comments

A supplemental response should be provided describing what steps have been taken by Detroit Edison to determine that the problems identified are isolated and that subsequent or future valve manipulation have confirmed or will confirm this discussion. The rough percentage of safety-related valves manipulated at the completion of the ILR test should be provided.

11. Section 3.18.2.b.1 - DECO should re-inspect spring adjustments on all of the scram valves to assure that the springs are well sealed and inspect each scram valve stem for proper seating and absence of damage.

Licensee Response

All scram valve adjustments have been completed. See NCR 84-0989.

NRC Comment

No further response required.

12. Section 3.18.2.b.2 - DECO states "that there were no other instances of miswiring where a problem similar to that on valve E1150-MO-F009 may have been created." However, section 3.18.2.a.2 of the DECO report mentions similar problems with E1150-F0-F008.

NRC Comment

Based on inspection conducted separately this week, this item was resolved and no response is required.

13. Section 3.19 - A review of QC inspection procedure implementation for electrical cables and component installation/testing should be conducted to determine why these discrepancies were not found during QC inspection and to determine if there are shortcomings in other areas. (This may be applicable for items 17, 18, 19, 20, and 22.)

Licensee Response

A supplemental response will be provided.

NRC Comment

The supplemental response should provide information as to the adequacy of the check sheets used for QC inspection of fuses, as-built wiring, etc. relating to discrepancies identified during the Duke inspection and to determine why these problems were not previously identified and to determine if additional review is required.

14. Section 3.19.1 - DECO should verify that the starter size is current for valve E1150F009.

Licensee Response

Item has been verified.

NRC Response

No supplemental response is required.

15. Section 3.19.2.b -

- a. How have all DECO personnel (test engineers, craftsmen, etc.) been made aware of the fact that specification 3071-128 section EJ is the lead document taking precedence over all related design drawings?

- b. DECO states "In time, fuse size and type for each QA Level I application will be eliminated from other engineering documents."

Which documents will be eliminated and in how long a time?

How is this to be controlled? Why not update existing drawings and documents?

Licensee Response

With regard to the first item a training program has been completed. The training was to make personnel aware that the specification is the lead document.

With regard to the second issue, this item will be addressed in conjunction with recommendation #17 discussed in Item 1 above.

NRC Comment

The supplemental response should be specific as to how this process will be controlled and the rationale as to why existing drawings and documents do not require updating.

16. Section 3.20 - The response addressed the specific items which were identified by Duke. DECO did not appear to sample the population to determine the extent of the problem.

NRC Comment

A supplemental response should be provided describing what program will be in place to assure that limit switches for valve operators are showing their correct position as required.

17. Section 3.21.2.a - In what form (documentation) has DECO engineering "determined that, for the example identified by Duke Power, the use of tie-wraps in lieu of kellem grips meets the intent of the specification"?

If cables do not meet site specifications an NCR should be written to document and disposition the condition.

Licensee Response

The specification is being revised to allow the use of tie-wraps in lieu of kellem grips. An NCR will be written documenting and dispositioning the condition previously identified.

NRC Comment

The change of the specification should be accompanied by a justification for why tie-wrap can be used in lieu of kellem grips.

18. Section 3.23.2 - DECO should include in their response a discussion as to why this situation was not identified by DECO as part of their "pipe break (or crack) outside containment evaluation program" and what DECO will do to assure that other similar situations don't exist in the plant.

Licensee Response

The issue discussed was known by DECO. In general all cabinets are sealed on top to prevent moisture intrusion. Additional steps such as wrapping pipes to capture spray are in progress.

NCR Comment

A supplemental response should be generated describing in general terms the program for water spray and seismic interaction. The response should indicate when the safety-related activities will be completed.

19. Section 3.25.2 - The response is incomplete or inadequate. The second preoperational test and maintenance of the batteries is under review by the Region Test Programs Section. This item will be addressed in Inspection Report 50-341/84-20 as an unresolved item.

NRC Comment

This issue will be followed up separate from this report. The report number given is in error. The report number should have been listed as 84-36-05.

20. Section 3.2.2.a - The HVAC contractor, Robert Irsay, demobilized during June 1981. Bechtel completed the HVAC work under the direction of the System Completion Organization (SCO). Who is the contractor referred to in the response? If it is Irsay, it would indicate there may be document control problems.

Licensee Response

The licensee responded that documents were placed in boxes and placed in the vault.

NRC Comment

The licensee should respond to this item. The staff commented that three years after turnover appeared to be a long time before the documents were incorporated into the document control system.

21. Section 3.16.2.a - QA has had a housekeeping program in place in excess of a year; in addition, SCO had their own program. The discussion did not address these programs. What assurance is there that the new programs will be any more effective than those which were in place?

Licensee Response

The licensee's discussion addressed the new programs and not the effectiveness of those already in place. DECO believes that the new programs will be effective because the plant will be in an operational phase.

NRC Comment

The licensee should respond to this item and address the programmatic effectiveness of programs at the time of the inspection and the adequacy of the newly installed program.

22. In addition to the 24 specific recommendations provided by Duke Power in section 6.0 of the Duke report, there were recommendations made throughout the report that were not included in the 24 recommendations but should be addressed by DECO. The following are examples of recommendations made by Duke Power but not addressed in the DECO response report:
- a. Page 110 of the Duke report Section 3.7.4.5 recommends that DECO look at each support on both the RHR Heat Exchangers and the EECW Heat Exchangers to assure that all clearances required for proper installation of the sliding supports and guides are met.
 - b. Page 129 of the Duke report Section 3.8.2.4(3) recommends the use of filters or trash screens for protection of the control air compressor room internal cooling coils.
 - c. Page 151 of the Duke report Section 3.11.3.5 recommends "that a generic procedure be developed and implemented, prior to fuel loading, requiring periodic checks of penetrations for gas pressure fluctuation and damage."

Licensee Response

Many if not all the recommendations are included in the files associated with each of the 199 findings. All recommendations will be verified to be included in either the summary recommendation files or in the findings file. If they are in neither, a separate file for that issue will be generated.

NRC Comment

No further response is required.