

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-341/80-16

Docket No. 50-341

License No. CPPR-87

Licensee: The Detroit Edison Company
2000 Second Avenue
Detroit, MO 48226

Facility Name: Enrico Fermi 2

Inspection At: Enrico Fermi 2 Site, Monroe, MI

Inspection Conducted: September 24-26, 1980

Inspector: I. T. Yin *RC Knopfer*

10-7-80

Approved By: *RC Knopfer*
D. H. Danielson, Chief
Engineering Support Section 2

10-7-80

Inspection Summary

Inspection on September 24-26, 1980 (Report No. 50-341/80-16)

Areas Inspected: Pipe support and restraint installation inspection; review of procedures and followup on previously identified hanger program noncompliances. The inspection involved 20 inspector-hours onsite by one NRC inspector.

Results: No apparent items of noncompliance or deviations were found.

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DETAILS

Persons Contacted

Detroit Edison Company (DECO)

*E. Hines, Assistant Vice President, QA
*T. A. Alessi, Director Project QA
*T. H. Dickson, Director Project Design
W. J. Fahrner, Project Manager
*W. M. Everett, Project Superintendent
*J. H. Casiglia, Principal Engineer
*R. J. Adler, Engineering Work Leader
*C. R. Bacon, Assistant Director Field Engineering
*L. Bertani, Chief Field Design Engineer
*J. Gessner, Assistant Director Project QA
*S. Noetzel, Director Field Engineering
*H. A. Walker, Supervisor Construction QA
S. H. Buchanan, Principal Field Engineer
D. Schweikhart, Piping Stress Engineer, Small Bore Piping
R. G. Baldwin, Supervisor, Small Bore Piping

Daniel International Corporation (DI)

*G. R. Curtis, QA Engineer
*R. F. McCraney, QA Supervisor
*K. Dempsey, Piping Manager
*M. Albortin, Assistant Project Manager
J. A. Cartmill, Assistant Project Superintendent, Construction
D. McGath, Piping
W. Breeden, QC Engineer
D. F. Ferguson, Acting Project Manager
J. F. Malaric, Supervisor

Wisner and Becker Contracting Engineers (WB)

C. Keller, Project QC Manager

Reactor Controls, Inc. (RCI)

N. R. Snellings, Site QC Supervisor

Townsend and Bottum, Inc. (TB)

L. D. Kemp, QC Supervisor

USNRC-RIII

*W. Little, Projects Section Chief
*B. H. Little, Resident Inspector
*P. Byron, Resident Inspector

- . RCI, Northeast Services Division, QA Manual Section 1, "General", Revision 1, dated September 22, 1978. Section 2, "Organization", Revision 0, dated April 4, 1978.
- . RCI, "QA Manual ASME Section III, Division I (modified) Enrico Fermi Unit 2 Piping Supports, Job 103-PS" Revision 0, dated April 12, 1980.

2. Procedure Review

The inspector reviewed the following contractor procedures:

- . TB Field Work Procedure FW-P-09, "Fabrication and Erection of Hangers and Supports", Revision 0, dated July 14, 1980.
- . TB FW-P-13-Civil, "Installation and Testing of Concrete Anchors", Revision 0, dated August 6, 1980.
- . RCI CP-129, "QA Level Pipe Supports", Revision 5, dated September 4, 1980.
- . WB-C-114, "QA Level I Pipe Supports (except GE-NED)", Revision 7-2, dated March 23, 1979.

The inspector concluded that the procedural requirements were not consistent or compatible with each other such as in the areas of timely QC inspection and problem trend analysis. Furthermore, the inspection tolerances did not include all requirements established in DECO Specification 3071-31 Appendix F, "Installation of QA Level I Pipe Supports", Revision C, dated March 10, 1980. This is an unresolved item. (341/80-16-02)

3. Observation of Work

The inspector selected the following large bore, small bore, and instrumentation piping hangers for observation to determine the adequacy of QC inspection. No problem areas were identified, except minor document deficiencies. These items were installed and QC checked by WB and RCI. No items installed by TB were selected for inspection because little work had been completed in the RHR building.

Large Bore Pipe Hangers and Restraints

- . G33-3096-G36
- . G33-3096-G20
- . E11-3160-G09
- . P44-3557-G02
- . P44-3656-G02
- . N21-3537-G09
- . P44-3048-G15

Small Bore Pipe Hangers and Restraints

- . P44-5165-G07
- . P42-3567-G34
- . P42-3567-G12
- . P44-4307-G17
- . E11-4003-G10

Instrumentation Pipe Hangers and Restraints

- . P50-7502-G21
- . P50-7604-G03
- . P50-7502-G06
- . T23-I2837-51-G118

4. Review of QA Audits

The inspector reviewed the following QA audit and surveillance findings and had no adverse comment. The audit/surveillance function is a joint effort of DECO and DI responsible personnel.

- . M-062380 of RCI, dated June 23, 1980
- . W-062480 of RCI, dated June 24, 1980
- . M-062580 of RCI, dated June 25, 1980
- . M-062680 of RCI, dated June 26, 1980
- . 80-06-01B of WB, dated May 5 - 23, 1980
- . 80-06-12A of WB, dated May 5 - 23, 1980
- . 80-06-17D of WB, dated May 5 - 23, 1980
- . 80-06-18D of WB, dated May 5 - 23, 1980

5. Program Review of Small Bore Design and Installation Activities

RIII Report 50-341/80-02, Section II, documented problems relative to the subject activities. Followup of the licensee corrective actions are as follows:

Paragraph 1.a: The licensee stated that all the calculations done by WB will be reviewed by DECO engineering in accordance with the recently established procedure FEWP-05, "Small Bore Piping and Pipe Support for Small Bore Design Department", Revision 0, dated September 24, 1980.

Paragraph 1.b.(1): Prior to Specification 3071-31, Revision C, dated March 10, 1980, where Appendix F was incorporated, DCR No. P-2238B was issued by the DECO Field Engineering on August 26, 1980, to alter the installation acceptance tolerance similar to the problems previously identified. Tighter control on the issuance of DCR's appeared to be needed.

Paragraph 1.b.(2): Structural calculation and shear lug design was incorporated in DCR No. SB-0315 of DECO Specification 3071-31 Section 12.20, "Hanger", approved by Design Engineering on August 20, 1980.

Paragraph 1.c.: The design package review responsibility was defined in DECO Procedure FEWP-05. Work status was shown in Project Engineering internal memorandums, dated September 18, 1980 and September 24, 1980. Two categories of status have been established.

- . Review status of the approximately 900 hangers done prior to May 29, 1980.

- . Weekly Revision status of design work performed subsequent to the May 29, 1980, cut-off date.

Paragraph 1.d.: The scope of small bore design activities was listed in DECO Project Engineering Department Memorandums, EF2-48, 492, Revision A, dated March 10, 1980, and Revision B, dated June 13, 1980. The design bases were contained in DECO Specification 3071-525, "Nuclear Class 2 and 3 Small Piping and Instrument and Control Piping and Tubing", Revision A, dated March, 1980.

Paragraph 1.e.: Personnel qualification requirements are documented in DECO Field Engineering Policy and Procedure, "Hiring, Orientation and Training, Enrico Fermi 2", Revision 2, dated May 12, 1980.

Trainings for the following has been conducted:

- . EF2-48, 791, dated April 28, 1980 QA I Instrumentation Tubing Support Design Presentation, conducted on April 14, 1980.

- . EF2-48, 622, dated June 2, 1980 that established the training requirements for the Small Piping Design Group (SPDG) on site.

- . DF2-49, 471, dated June 19, 1980 that scheduled the training held for the SPDG on June 26 - 27, 1980.

Paragraph 2.a: Single pipe lug per side was not permitted per SB-0315 attachment 4. A punch list to correct the specific problem has been initiated, but not yet completed.

- Paragraph 2.b. and c: Necessary design calculation methods, clamp selections, and the avoidance of using "drive fit" pins has been included in DECO Specification and work procedures.
- Paragraph 2.d. (1) and (4): In conjunction with problems described in Paragraph 2.a, a punch list to correct the P50 Noninterruptable Air System installation including the stainless steel sleeve deficiencies has been initiated, but not yet completed.
- Paragraph 2.d. (2) and (3): The installation tolerance including the allowable gaps on the seismic restraints has been revised as incorporated into Appendix F of the DECO Specification 3071-31, Revision C. The installation of the pipe hangers designed by Sargent and Lundy in the RHR building has somewhat different tolerance requirements.

In conclusion, the inspector stated that the item of noncompliance will remain open pending the following additional actions:

- (1) A more thorough review of the revised specifications and procedures has been completed by the inspector in the RIII office.
- (2) The corrective action on the P50 system installation is completed.
- (3) Tighter control on field engineering issuance of DCR's is implemented.
- (4) Licensee audit of the small bore program implementation is completed.

Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Two unresolved items disclosed during the inspection are discussed in Paragraphs 1 and 2.

Exit Interview

The inspector met with site staff representatives (denoted under Persons Contacted) at the conclusion of the inspection on September 26, 1980. The inspector summarized the purpose and findings of the inspection. The licensee acknowledged the findings reported herein.