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

REGION III

Report No. 50-341/81-08

Docket No. 50-341 License No. CPPR-87

Licensee: Detroit Edison Company
2000 Second Avenue
Detroit, WI 48224

Facility Name: Enrico Fermi Nuclear Power Plant, Unit 2

Inspection At: Enrico Fermi 2 Site, Monroe, Wisconsin

Inspection Conducted: June 23-26, 1981

Inspectors: for K.R. Baker — R. N. Sutphin — 9/23/81
for K.R. Baker — J. F. Schapker — 9/23/81
for M. Byron — T. M. Byron — 9/29/81

Accompanied By: R. Janke, Co-Op Student Inspector

Approved By: K. R. Baker, Chief — 9/23/81
Management Programs Section

Inspection Summary

Inspection on June 23-26, 1981 (Report No. 50-341/81-08)
Areas Inspected: Annual in depth inspection of quality assurance performance - mechanical and piping systems. The inspection involved a total of 84 inspector-hours onsite by three NRC inspectors including 0 inspection hours onsite during off shift.
Results: Of th areas inspected, one apparent violation was identified. Failure of licensee to maintain their project procedures manual up to date with current practice.

DETAILS

Persons Contacted

Detroit Edison Company (D.E.Co.)

*T. A. Alessi, Director Project QA
*C. R. Bacon, Assistant Director Field Engineering
*L. Bertani, Chief Field Design Engineer
*W. A. Boelter, Assistant Project Manager Construction
W. H. Buchanan, Piping-Equipment Engineer
*L. E. Eix, Director EA
*W. Fahrner, Manager Fermi 2 Project
J. Gessner, Assistant Project QA Director
*E. H. Newton, Plant QA Engineer
*J. W. Nunley, Director Project Design
*F. D. Ozdarski, Mechanic-Resident Engineer
*D. Spiers, Director Field Engineering
*H. A. Walker, Supervisor Construction QA
*D. A. Wells, Manager QA

Daniel International Corporation (DIC)

*J. C. Ard, Jr., Project Manager Contstruction
*G. Curtis, Lead QA Engineer
K. Dempsey, Area Manager
J. Smith, Senior Dicipline Engineer

Wismer and Becker (W&B)

P. Edmondson, QA Document Supervisor
J. J. Kearney, QA Manager, Sacramento

*Denotes those attending the exit meeting on June 26, 1981.

Section I

Prepared by J. Schapker & P. Byron
Reviewed by D. Danielson

1. Observations of Installed Piping System

The NRC inspectors performed a walk down on selected portions of the core spray system. The following isometric drawings were utilized for this walk down:

6 M 721-2149-1, Revision L
6 M 721-3147-1, Revision K
6 M 721-3052-1, Revision M

The walkdown of the referenced system included verification of Mark numbers and serial numbers as specified on drawings, a sampling of dimensional requirements, specified spool sizes, valve class and size. In addition, the inspector performed visual examinations of weld seams and reviewed radiographs of field installation welds on a random sample basis.

The following radiographs were reviewed:

SYSTEM	ISOMETRIC DRAWINGS	WELD NO.	RADIOGRAPH NO.
Core Spray	6 M 721-3147-1, Rev. K	3W02	8242
Core Spray	6 M 721-3149-1, Rev. L	0W1	7760
Core Spray	6 M 721-3149-1, Rev. L	2W7	8065
Core Spray	6 M 721-3052-1, Rev. M	0W1	7679
Core Spray	6 M 721-3052-1, Rev. M	1W0 R-1	8103
Core Spray	6 M 721-3052-1, Rev. M	4W0 R-1	8321
Core Spray	6 M 721-3149-1, Rev. L	5W0	172

No items of noncompliance were noted.

2. Review of Travelers and Inspection Reports

The inspectors selected a sample of field welds during the walk down to verify proper documentation and that required inspections were performed. Appropriate travelers and inspection reports, weld procedure records and erection procedures were reviewed for completion and adequacy. No deviations or items of noncompliance were noted.

3. Interviews

The inspectors interviewed crafts persons, foremen and inspectors. The context of the interviews pertained to the quality and workmanship of the construction on site. Responses from all individuals interviewed were positive and no one expressed a concern about the quality of construction or equipment installed.

Section II

Prepared by R. N. Sutphin
Reviewed by K. R. Baker

1. Field Drawings, Construction Specifications and Work Procedures

a. The core spray system specification was selected as representative of a safety system in the piping/mechanical equipment category for this annual in-depth QA inspection of performance at Enrico Fermi No. 2.

Core Spray System (CSS)
Project Design Specification
3071-502 Revision A, March 17, 1980.

Of the isometric drawings referenced in this specification three were selected for detailed review and for further checking of compliance with FSAR committments and applicable QA program requirements.

GM 721-3052-1, Revision M
GM 721-3147-1, Revision K
GM 721-3149-1, Revision L

b. A detailed review of these three isometric drawings was completed with the following results.

(1) 6 M 721-3052-1, Revision M, Piping - Isometric drywell core spray piping North Division I reactor building Unit No. 2. (Piping within outermost isolation valves)

This isometric covered piping designated as D.E. Co., quality classification group A, code compliance to ASME III class 1, seismic I, and quality assurance requirements Level I (per Spec. 3071-31).

The class I system portion is designed and constructed in accordance with the rules of sub-section NB of the ASME code section III, 1971 issue (per spec. 3071-502).

The quality assurance level I is a designation given to an item whose functional failure can cause, or fail to mitigate, a nuclear incident which could cause undue risk to the health and safety of the public (per spec. 3071-181).

This isometric had three outstanding change documents logged against it in the automatic records management system (ARMS), i.e.

Design Change Request:
(DCR) P 8326, May 29, 1981.
Design Change Notice:
(DCN) 390 A, August 7, 1980.

As Built-Record:
(ABM) 0051, June 17, 1981.

(2) 6 M 721-3147-1, Revision K, Piping - Isometric core spray pump (South) discharge to RPV penetration reactor building No. 2. (Piping beyond isolation valve) pump discharge.

This isometric covered piping designated as D.E. Co., quality classification group B, code compliance to ASME III Class 2, seismic I, and quality assurance requirement level I.

The class 2 system portion is designed and constructed in accordance with the rules of sub-section NC of the ASME code section III, 1971 issue, except the core spray pumps, purchased in 1970, which meet the requirements of the ASME code for pumps and valves for nuclear power, 1968 draft issue, section B.

This isometric had six outstanding change documents logged against it in the ARMS, i.e.

Design Change Request:
(DCR) P-[illegible], November 31, 1980.
(DCR) P-7458, March 23, 1981.
(DCR) P-2480E, June 3, 1981.

Design Change Notice:
(DCN) 4124, August 27, 1980.
(DCN) 4748, December 8, 1980.

As Built - Record:
ABM - 0051, June 17, 1981.

(3) 6 M 721-3149-1, Revision L, Pumps and Piping - Isometric Pump Suction Lines.

This isometric covered pumps and piping designated as D.E. Co. quality classification group B, code compliance to ASME III class 2, seismic I, and Quality Assurance requirements level I.

The class 2 system portion is designed and constructed in accordance with the rules of sub-section NC of the ASME Code Section III, 1971 issue (except the core spray pumps as noted above).

There were no outstanding changes (DCR) (DCN) (ABM) logged against this isometric in the arms.

c. The three isometrics reviewed were found to be in accord with D.E. Co. commitments as listed in table 3.201 of the FSAR.

The inspector noted on one copy of specification 3071-502, Revision A being reviewed that the DCN change notice number referenced on the cover was number DCN 7448. This was in error. The correct DCN number, per the ARMS, was DCN 4748. Since DCN number 7448 had not been issued and this error was of a clerical nature (number transposition) which was immediately corrected upon discovery, and other copies of the project design specification 3071-502, Revision A, had the correct DCN number referenced, it was considered to be an isolated incident, and not significant. No further action is considered necessary.

These three isometric drawings were used for the walk down inspection covered by Section I of this report.

2. Field Inspection(s), Measurements, Workmanship

Section 1 of this report comments on field inspection, measurements, and workmanship as observed by the NRC inspectors.

A review of documentation for evidence of workmanship concerns and responses indicated an acceptable level of activity by D.E. Co's. contractor Wismer and Becker (W&B).

Two recent (W&B) deviation disposition requests reported poor workmanship as the cause of the identified problem - specified rework, and appropriate corrective action. Both involved welding per WPS-7002.

DDR Number (W) 6382 issued May, 27, 1981.
(W&B DDR No. 2436)

DDR Number (MP) 6385 issued May 28, 1981.
(W&B DDR No. 2435)

The inspector did not find overall clear evidence of defined goals for workmanship such as standards of acceptance, performance guidelines, references to the preventive and appraisal quality aspects of workmanship programs. However, there were no significant deficiencies in the understanding and application of good workmanship practices identified

3. Field Engineers/Engineering Reports

a. The inspector reviewed with D.E. Co. engineering organization personnel. The engineering organization chart includes the position of Director Field Engineering and reporting to him the Assistant Director Field Engineering (for resident engineering personnel and functions) and the position of Chief Field Design Engineer.

The inspector reviewed the Project Procedures Manuel Book No. 43-B, and the Edison Field Engineering Work Procedures Manual Enrico Fermi 2 manual copy No. 6. The inspector reviewed the areas that relate to the initiative/reactive phases of field engineering effort, training, workmanship, concepts, and contractor evaluations.

Section 3 of the project procedures manual - configuration control - was reviewed in detail as it covered the procedures and forms for record (as built), Design Change Request (Field) DCR, Design Change Notice (design) DCN, and Field Modification Request (design) - per Form A 402.1 (12.80).

b. During the review of the Project Procedures Manual, Book No. 43-B, and in particular Section 3 on Configuration Control with its Exhibit B.3-1, the inspector found that the manual had not been maintained up to date with current forms and practices. Exhibit B.3-1 for Section 3, configuration control, had obsolete sections on the approvals required and the flow pattern for submittal and disposition of forms for: Record (as built), (DCR) Design Change Request(s), (DCN) Design Change Notice(s), and (FMR) Field Modification Requests as compared to the A 402.1 (12-80) form currently in use.

This is contrary to Criterion II of 10 CFR 50, Appendix B and the Enrico Fermi Unit 2 Quality Assurance Manual Sections 1.0.1, 1.3.3, and 1.3.6.4 which states, "Each Organization that implements a QA Program is required to have procedures for the preparation, review, approval and control of QA Program documents and to similarly control changes to such documents."

This is a violation identified in Appendix A (341/81-08-01).

c. The inspector found adequate evidence of the assignment of engineering personnel to the field engineering functions and the resulting coverage of the initiative and reactive phases of that activity, the training planned and conducted such as the Wedge Anchor Design Training Seminar, support to workmanship concerns, review of installed piping and mechanical systems, and contractor evaluations.

4. Quality Control (QC)

a. The inspector reviewed a set of quality control, process, and inspection documents associated with 6 M 721-3147-1, one of the isometric drawings selected for detailed review at this inspection. Documents included:

(1) Wismer & Becker (W&B) Operations Process Traveler (OPT) Form 1-1, Revision 5, January 1976, submittal No. 10137 for 6 M 721-3147-1, Piping Installation Operation Process Traveler, drawn December 10, 1977.

(2) Receiving and Inspection Report (RIR) Form G 1, Revision May 1, 1976, Report No. 653, January 6, 1978, Job No. 1-7000, for Spool PC. E-21-3147-2 and E-21-3147-4, received from Daniel International Company (DIC).

(3) Pipe Erection Process Control Sheet No. 01409. Work performed by X-Ray Engineering Company, Radiographic Report 1826/6 for work per Weld Procedure EF II P-1-5 (Class B) on Weld No., ID No. E-21-3147-0W3, by Ralph M. Parsons Company, operation 1.0

(4) (W&B) Wismer & Becker Fermi II Nuclear Quality Assurance and Control Manual Copy No. 38.

(5) ASME Certificate(s) of Authorization Number N-1461-2 for NA; Number N-1462-2 for NPT.

(6) W&B Quality Organization Chart June, 1981.

(7) Detroit Edison Company, Enrico Fermi No. 2, Exhibit 1, Project Quality Assurance (Organization Chart) QA/19/5.7; Exhibit 2, QA/19/5.8; Exhibit 3, QA/19/5.9; Exhibit 4, QA/19/5.10; Exhibit 5, QA/19/5.11.

(8) Documentation Checklist Form 1-7, Revision 5-1-76, issued for E-21-3147 on January 17, 1978.

b. Observations of Inspector on QC Documents Reviewed

(1) The inspector noted that the (OPT) Operations Process Traveler No. 10137 had original signatures of the Project Manager, the Manager of Engineering, the Engineer, and the Authorized Inspector, but none of these had dated their signatures.

(2) The Receiving and Inspection (RIR) Report No. 653 included indications that inspection direction was given by the QC Supervisor January 6, 1978, that receiving inspection was performed and checked off by the receiving inspector January 6, 1978 and verified by QC January 12, 1978.

(3) The NDE Testing of the Weld E-21-3147-0W3 appeared to be in accord with requirements.

(4) The W&B Quality Assurance and Control Manual Copy No. 38 did not have indications of the date the individual pages and contents were signed by the QA and QC Manager for originals and for the revisions.

(5) The ASME Certificates of Authorization on file in the QA and QC Manual had expired June 19, 1981.

(6) The W&B Quality Organization included function of Quality Engineers, QC Field Inspection, QC Receiving, NDE, and Turnover with over 80 persons in the organization.

(7) The D.E. Company Project Quality Assurance included the Function of PQA Troy, Quality Engineering, Construction QA, Quality Verification, Check Out and Initial Operations QA with a well organized staff of QA Engineers, Technicians, Inspectors, Auditors, Analysis, and Supervisors.

(8) The Documentation check list was timely and adequate for the specific example checked.

c. The inspector found that the overall inspection and quality control activity was in accord with program documentation and was performing in a satisfactory manner. New ASME Certificates of Authorization for NA and NPT had been applied for, received, and were made available at the site prior to the end of the inspection for verification by the NRC Inspector. The QA and QC Manager for W&B advised that the original master set of the originals and revisions to the Quality Assurance and Control Manual pages did contain the date of his review and signature and that they would be brought to the site for verification later by the resident inspector. This was done and the NRC resident inspector verified that the originals are properly authenticated.

5. Nonconforming Items, Reports and Trends

a. Observations and comments on nonconformances and inspection reports are included in Section I of this inspection report. The inspector further reviewed NCR's for the reportability aspect of the 10 CFR Part 21 requirements and for trend analysis.

Two W&B report(s) of Defects and Noncompliance were selected for review (DDR-Deviation Disposition Request):

W&B - DDR No. 2043
W&B - DDR No. 2436

One Trend Analysis Curve and Letter Report of February 2, 1981, was reviewed, covering DDR's from July 21, 1978 thru January 13, 1981.

b. The inspector found that appropriate documented review for reportability under 10 CFR Part 21 had been accomplished for the two DDR's selected.

W&B - DDR No. 2043 was reviewed by the W&B Quality Representative on December 29, 1980. Declared potentially reportable and referred to D.E. Company by distribution.

W&B - DDR No. 2436 was reviewed by the W&B Quality Representative on May 28, 1981. Declared not reportable and reported to D.E. Company by distribution.

The Trend Curve reviewed included curves for QA Manual Compliance, Documentation, Supplier, Specification Compliance, Traveler Compliance, Traceability, Procedure Compliance and Drawing Compliance.

c. The nonconformance reporting and review process appears to be satisfactory. The trend report curves indicate a favorable trend for approximately the past 12 months for all of the monitored categories except drawing compliance, which, as of January 13, 1981, was increasing but was at a lower level than it had been in early 1980.

6. Materials and Equipment

a. The inspector reviewed 10 randomly selected Receiving and Inspection Reports (RIR's) for the period from February 2, 1978 thru February 16, 1981 for W&B. Included were reports numbered: 761, 1616, 2007, 2321, 2666, 3663, 4262, 4830, 5770, and 5811.

b. The inspector found that in all of the 10 selected RIR's there had been an indication of the criteria to be inspected, and the accomplishment of that inspection by the receiving inspector. In one case, RIR No. 4830, the file copy of the Certification from the supplier appeared to be an example of a stamped signature rather than an original signature. All of the other certifications reviewed appeared to be in order.

c. The inspector observed that of the 10 randomly selected RIR's there were no rejections or unsatisfactory conditions reported. This was communicated to the W&B Quality Manager who reported that on an audit the week before he had selected 10 RIR's with the same result - no rejections. This appears to be a low rate of rejection and could be indicative of poor inspection performance. The inspector than requested that examples of rejected RIR's be provided for review. RIR's 5260 and 5261 both dated March 26, 1980, were found and presented for review. Notices of rejection were issued for both RIR's on March 28, 1980 and both remain in an open status at the date of this inspection.

7. Audit Activities

a. The inspector reviewed audit plans and programs with site personnel, regarding Production Quality Assurance Procedure - Audit Planning 9-310 dated June 6, 1980, signed by D.E. Co., Director Project QA.

b. Audit activities and plans have changed in the last 18 months due to the integrated QA Organization set up approximately 18 months ago. Quarterly audits are to be scheduled covering the 18 criteria of Appendix B, 10 CFR 50. Previous audit records are on file.

c. The licensee has initiated an audit program policy which is expected to expand and improve their audit activity.

8. Exit Interview

The inspectors met with Licensee Representatives (denoted under Persons Contacted) at the conclusion of the inspection on June 26, 1981. The inspectors summarized the scope and findings of the inspection. The licensee acknowledged the information.